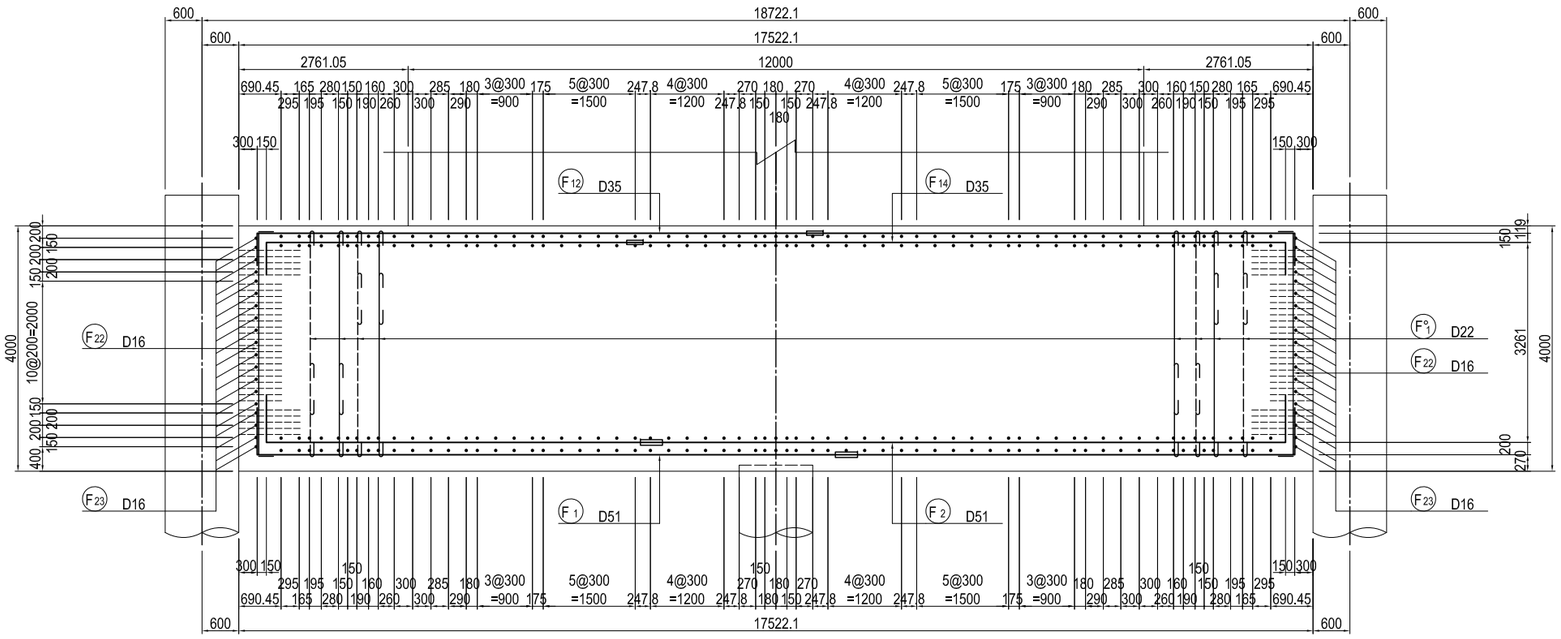
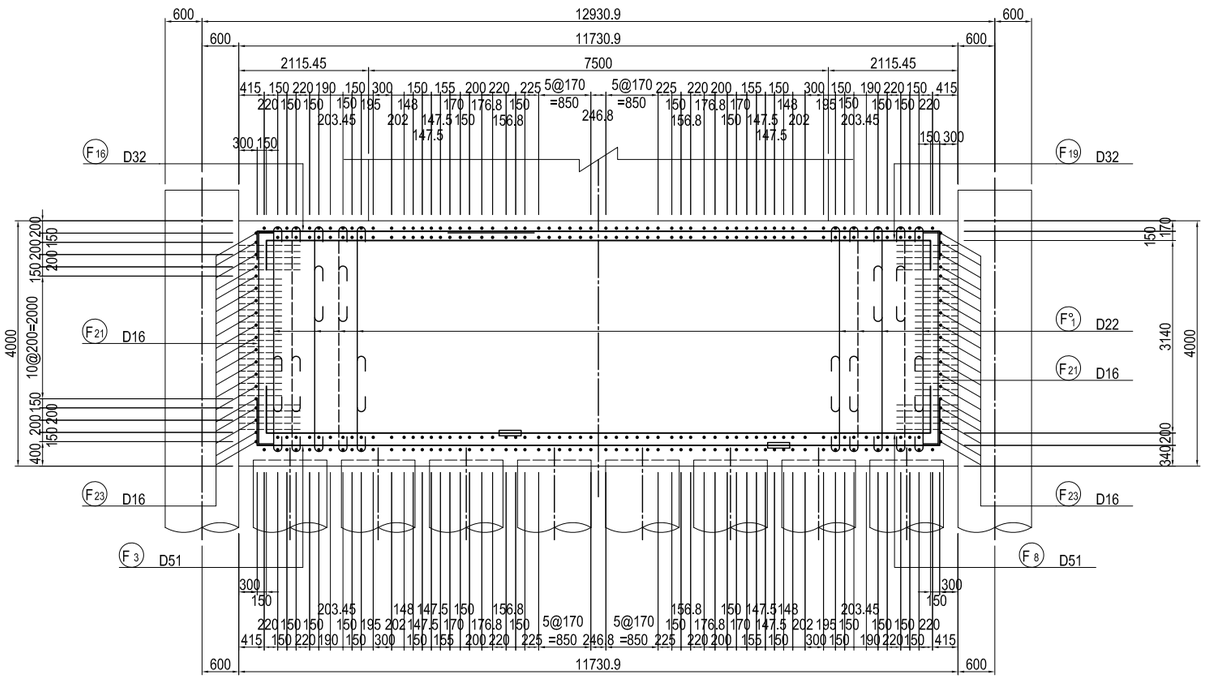
BAR ARRANGEMENT OF P10 FOOTING (1) S=1:100

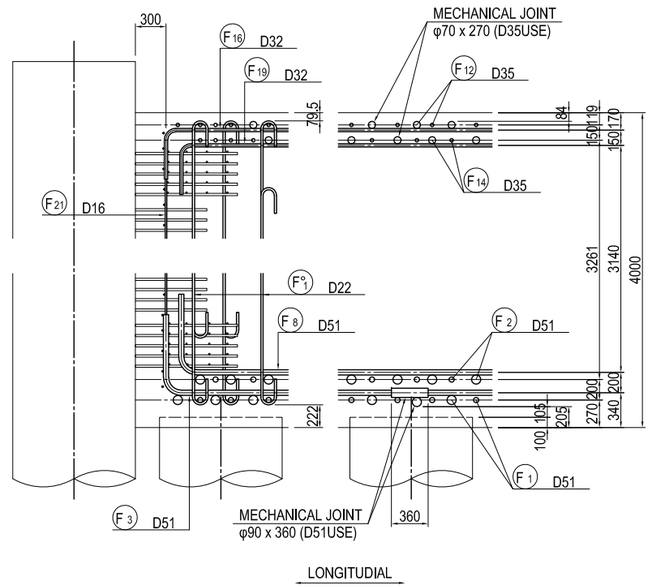
SECTION 1 - 1



SECTION 2 - 2

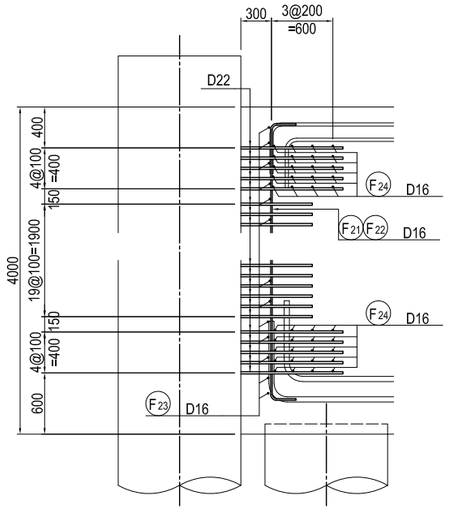


DETAIL OF PILE CAP S=1:60

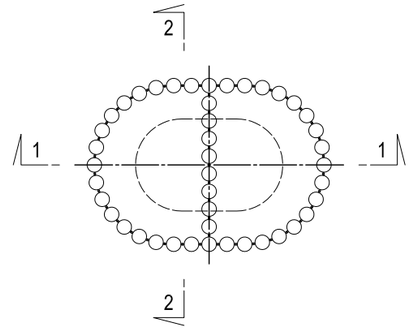


DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING

S=1:60



MARKING DIAGRAM



Note) : MECHANICAL JOINT

USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

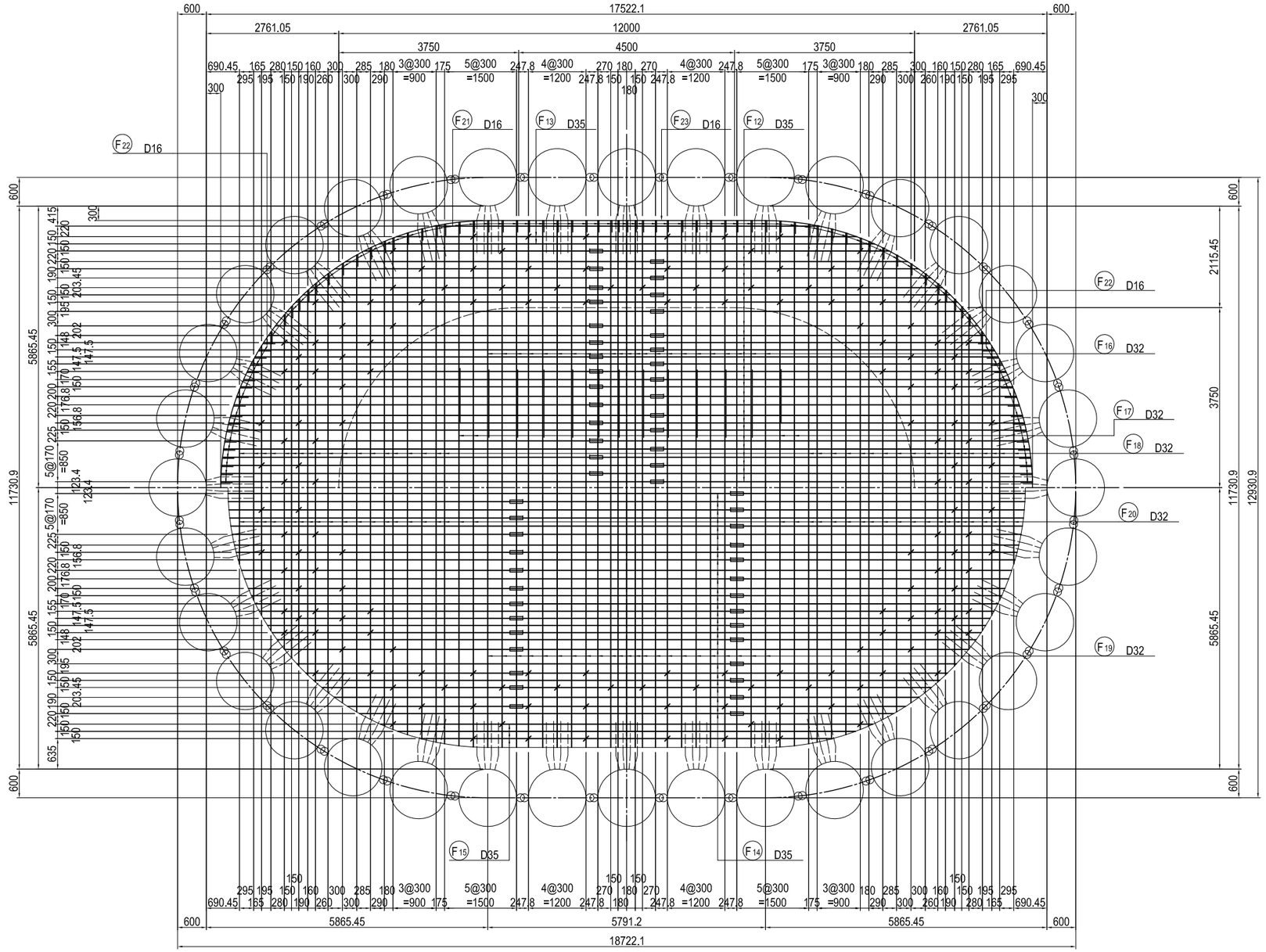
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	S .TOKUMARU		27. Nov.2017	BAR ARRANGEMENT OF P10 FOOTING (1)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2033

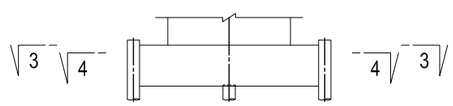
BAR ARRANGEMENT OF P10 FOOTING (2) S=1:100

PLAN
3 - 3

PLAN
4 - 4



MARKING DIAGRAM



Note) : MECHANICAL JOINT

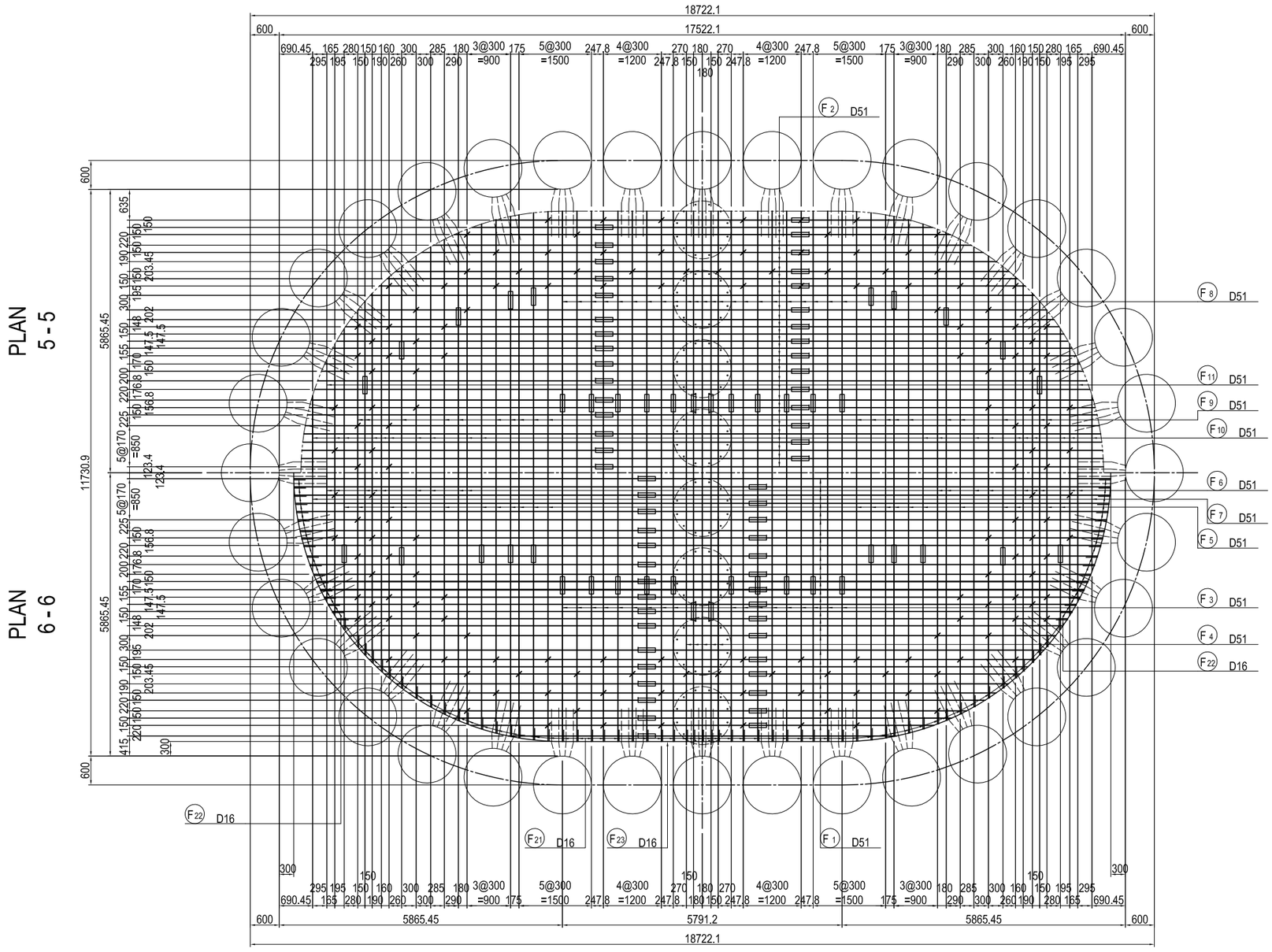
USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

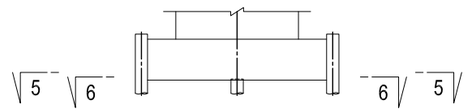
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	S .TOKUMARU		27. Nov.2017	BAR ARRANGEMENT OF P10 FOOTING (2)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2034

BAR ARRANGEMENT OF P10 FOOTING (3) S=1:100



MARKING DIAGRAM



Note) : MECHANICAL JOINT

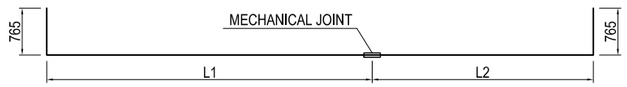
USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

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	S .TOKUMARU		27. Nov.2017	BAR ARRANGEMENT OF P10 FOOTING (3)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2035

BAR ARRANGEMENT OF P10 FOOTING (4) S=1:100

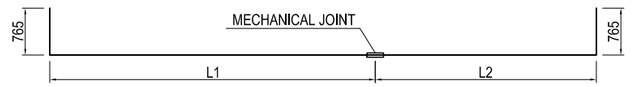


(F1)-1 62 – D51 × 9220 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL
F1 -1 1	D51	2	9610	10375
2	"	2	9603	10368
3	"	2	9592	10357
4	"	2	9575	10340
5	"	2	9553	10318
6	"	2	9525	10290
7	"	2	9480	10245
8	"	2	9445	10210
9	"	2	9404	10169
10	"	2	9337	10102
11	"	2	9276	10041
12	"	2	9199	9964
13	"	2	9135	9900
14	"	2	9056	9821
15	"	2	8979	9744
16	"	2	8899	9664
17	"	2	8813	9578
18	"	2	8719	9484
19	"	2	8620	9385
20	"	2	8473	9238
21	"	2	8228	8993
22	"	2	8048	8813
23	"	2	7898	8663
24	"	2	7735	8500
25	"	2	7491	8256
26	"	2	7236	8001
27	"	2	7010	7775
28	"	2	6627	7392
29	"	2	6318	7083
30	"	2	5947	6712
31	"	2	5171	5936
AVE		62		9217

(F1)-2 62 – D51 × 6920 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F1 -2 1	D51	2	7310	8075
2	"	2	7303	8068
3	"	2	7292	8057
4	"	2	7275	8040
5	"	2	7253	8018
6	"	2	7225	7990
7	"	2	7180	7945
8	"	2	7145	7910
9	"	2	7104	7869
10	"	2	7037	7802
11	"	2	6976	7741
12	"	2	6899	7664
13	"	2	6835	7600
14	"	2	6756	7521
15	"	2	6679	7444
16	"	2	6599	7364
17	"	2	6513	7278
18	"	2	6419	7184
19	"	2	6320	7085
20	"	2	6173	6938
21	"	2	5928	6693
22	"	2	5748	6513
23	"	2	5598	6363
24	"	2	5435	6200
25	"	2	5191	5956
26	"	2	4936	5701
27	"	2	4710	5475
28	"	2	4327	5092
29	"	2	4018	4783
30	"	2	3647	4412
31	"	2	2871	3636
AVE		62		6917

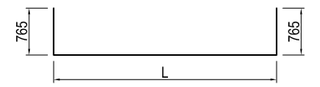


(F5)-1 22 – D51 × 7290 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL
F5 -1 1	D51	2	7237	8002
2	"	2	7213	7978
3	"	2	7172	7937
4	"	2	7141	7906
5	"	2	7073	7838
6	"	2	6987	7752
7	"	2	6680	7445
8	"	2	6139	6904
9	"	2	5933	6698
10	"	2	5285	6050
11	"	2	4927	5692
AVE		22		7291

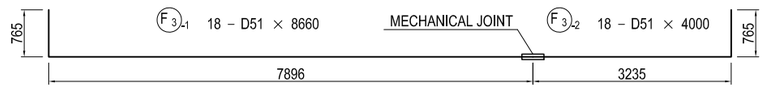
(F5)-2 22 – D51 × 3930 (AVE)

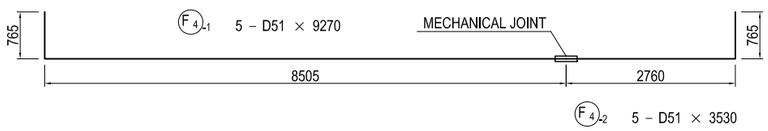
MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F5 -2 1	D51	2	3877	4642
2	"	2	3853	4618
3	"	2	3812	4577
4	"	2	3781	4546
5	"	2	3713	4478
6	"	2	3627	4392
7	"	2	3320	4085
8	"	2	2779	3544
9	"	2	2573	3338
10	"	2	1925	2690
11	"	2	1567	2332
AVE		22		3931

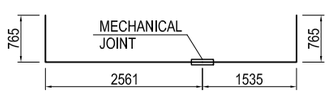


(F6) 18 – D51 × 9820 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F6 1	D51	2	10406	11936
2	"	2	10263	11793
3	"	2	9700	11230
4	"	2	9337	10867
5	"	2	8225	9755
6	"	2	7861	9391
7	"	2	7549	9079
8	"	2	5914	7444
9	"	2	5352	6882
AVE		18		9820





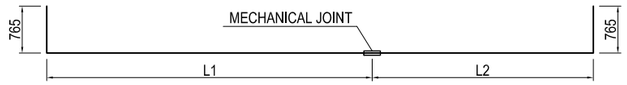


USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

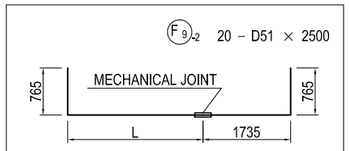
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
				NAME	SIGNATURE / DATE
				PREPARED BY	S .TOKUMARU / 27. Nov.2017
				CHECKED BY	T. HAYAKAWA / 28. Nov.2017
				APPROVED BY	Y. SANO / 29. Nov.2017
				DRAWING TITLE	BAR ARRANGEMENT OF P10 FOOTING (4)
				PACKAGE	1
				DWG No.	P1-CS-2036

BAR ARRANGEMENT OF P10 FOOTING (5) S=1:100



(F2-1) 60 – D51 × 10000 (AVE)　　(F2-2) 60 – D51 × 5940 (AVE)

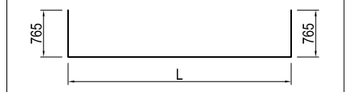
MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F2-1 1	D51	2	10340	11105	F2-2 1	D51	2	6280	7045
2	"	2	10333	11098	2	"	2	6273	7038
3	"	2	10321	11086	3	"	2	6261	7026
4	"	2	10304	11069	4	"	2	6244	7009
5	"	2	10281	11046	5	"	2	6221	6986
6	"	2	10253	11018	6	"	2	6193	6958
7	"	2	10207	10972	7	"	2	6147	6912
8	"	2	10170	10935	8	"	2	6110	6875
9	"	2	10128	10893	9	"	2	6068	6833
10	"	2	10059	10824	10	"	2	5999	6764
11	"	2	9996	10761	11	"	2	5936	6701
12	"	2	9916	10681	12	"	2	5856	6621
13	"	2	9851	10616	13	"	2	5791	6556
14	"	2	9769	10534	14	"	2	5709	6474
15	"	2	9689	10454	15	"	2	5629	6394
16	"	2	9606	10371	16	"	2	5546	6311
17	"	2	9517	10282	17	"	2	5457	6222
18	"	2	9419	10184	18	"	2	5359	6124
19	"	2	9316	10081	19	"	2	5256	6021
20	"	2	9163	9928	20	"	2	5103	5868
21	"	2	8906	9671	21	"	2	4846	5611
22	"	2	8717	9482	22	"	2	4657	5422
23	"	2	8558	9323	23	"	2	4498	5263
24	"	2	8384	9149	24	"	2	4324	5089
25	"	2	8123	8888	25	"	2	4063	4828
26	"	2	7846	8611	26	"	2	3786	4551
27	"	2	7597	8362	27	"	2	3537	4302
28	"	2	7166	7931	28	"	2	3106	3871
29	"	2	6801	7566	29	"	2	2741	3506
30	"	2	6329	7094	30	"	2	2269	3034
AVE		60		10001	AVE		60		5941



(F9-2) 20 – D51 × 2500

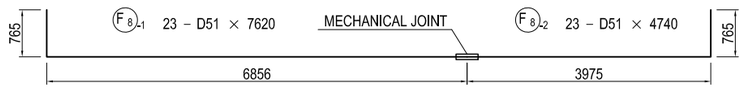
(F9-1) 20 – D51 × 8560 (AVE)

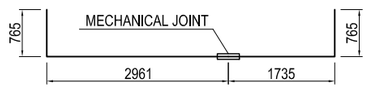
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F9-1 1	D51	2	9079	9844
2	"	2	9029	9794
3	"	2	8945	9710
4	"	2	8880	9645
5	"	2	8741	9506
6	"	2	8201	8966
7	"	2	7929	8694
8	"	2	6806	7571
9	"	2	5364	6129
10	"	2	5003	5768
AVE		20		8563



(F10) 20 – D51 × 9190 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F10 1	D51	2	10300	11830
2	"	2	10085	11615
3	"	2	9354	10884
4	"	2	8977	10507
5	"	2	8109	9639
6	"	2	7814	9344
7	"	2	7431	8961
8	"	2	5965	7495
9	"	2	5328	6858
10	"	2	3192	4722
AVE		20		9186





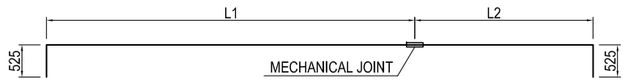
(F11-1) 2 – D51 × 3730　　(F11-2) 2 – D51 × 2500

USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

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	S .TOKUMARU		27. Nov.2017	BAR ARRANGEMENT OF P10 FOOTING (5)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2037

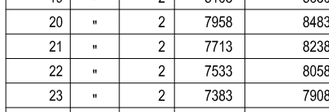
BAR ARRANGEMENT OF P10 FOOTING (6) S=1:100



F12-1 56 – D35 × 8750 (AVE)

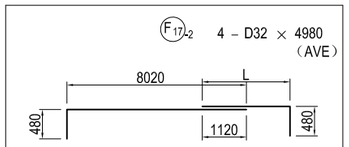
F12-2 56 – D35 × 7480 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F12-1 1	D35	2	9095	9620	F12-2 1	D35	2	7825	8350
2	"	2	9088	9613	2	"	2	7818	8343
3	"	2	9077	9602	3	"	2	7807	8332
4	"	2	9060	9585	4	"	2	7790	8315
5	"	2	9038	9563	5	"	2	7768	8293
6	"	2	9010	9535	6	"	2	7740	8265
7	"	2	8965	9490	7	"	2	7695	8220
8	"	2	8930	9455	8	"	2	7660	8185
9	"	2	8889	9414	9	"	2	7619	8144
10	"	2	8822	9347	10	"	2	7552	8077
11	"	2	8761	9286	11	"	2	7491	8016
12	"	2	8684	9209	12	"	2	7414	7939
13	"	2	8620	9145	13	"	2	7350	7875
14	"	2	8541	9066	14	"	2	7271	7796
15	"	2	8464	8989	15	"	2	7194	7719
16	"	2	8384	8909	16	"	2	7114	7639
17	"	2	8298	8823	17	"	2	7028	7553
18	"	2	8204	8729	18	"	2	6934	7459
19	"	2	8105	8630	19	"	2	6835	7360
20	"	2	7958	8483	20	"	2	6688	7213
21	"	2	7713	8238	21	"	2	6443	6968
22	"	2	7533	8058	22	"	2	6263	6788
23	"	2	7383	7908	23	"	2	6113	6638
24	"	2	7220	7745	24	"	2	5950	6475
25	"	2	6976	7501	25	"	2	5706	6231
26	"	2	6721	7246	26	"	2	5451	5976
27	"	2	6495	7020	27	"	2	5225	5750
28	"	2	6112	6637	28	"	2	4842	5367
AVE		56		8745	AVE		56		7475



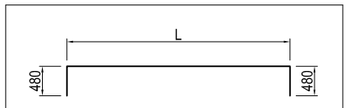
F13 6 – D35 × 10370 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F13 1	D35	2	10336	11386
2	"	2	9595	10645
3	"	2	8042	9092
AVE		6		10374



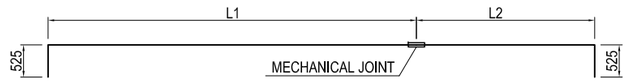
F17-1 4 – D32 × 8500

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F17-2 1	D32	2	4215	4695
2	"	2	4166	4646
AVE		4		4671



F18 38 – D32 × 9550 (AVE)

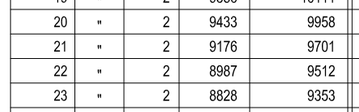
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F18 1	D32	2	10984	11944
2	"	2	10921	11881
3	"	2	10786	11746
4	"	2	10615	11575
5	"	2	10406	11366
6	"	2	10263	11223
7	"	2	9999	10959
8	"	2	9700	10660
9	"	2	9337	10297
10	"	2	8919	9879
11	"	2	8506	9466
12	"	2	8225	9185
13	"	2	7861	8821
14	"	2	7549	8509
15	"	2	7210	8170
16	"	2	6494	7454
17	"	2	5914	6874
18	"	2	5352	6312
19	"	2	4096	5056
AVE		38		9546



F14-1 54 – D35 × 10310 (AVE)

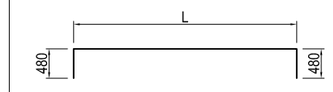
F14-2 54 – D35 × 5710 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F14-1 1	D35	2	10610	11135	F14-2 1	D35	2	6010	6535
2	"	2	10603	11128	2	"	2	6003	6528
3	"	2	10591	11116	3	"	2	5991	6516
4	"	2	10574	11099	4	"	2	5974	6499
5	"	2	10551	11076	5	"	2	5951	6476
6	"	2	10523	11048	6	"	2	5923	6448
7	"	2	10477	11002	7	"	2	5877	6402
8	"	2	10440	10965	8	"	2	5840	6365
9	"	2	10398	10923	9	"	2	5798	6323
10	"	2	10329	10854	10	"	2	5729	6254
11	"	2	10266	10791	11	"	2	5666	6191
12	"	2	10186	10711	12	"	2	5586	6111
13	"	2	10121	10646	13	"	2	5521	6046
14	"	2	10039	10564	14	"	2	5439	5964
15	"	2	9959	10484	15	"	2	5359	5884
16	"	2	9876	10401	16	"	2	5276	5801
17	"	2	9787	10312	17	"	2	5187	5712
18	"	2	9689	10214	18	"	2	5089	5614
19	"	2	9586	10111	19	"	2	4986	5511
20	"	2	9433	9958	20	"	2	4833	5358
21	"	2	9176	9701	21	"	2	4576	5101
22	"	2	8987	9512	22	"	2	4387	4912
23	"	2	8828	9353	23	"	2	4228	4753
24	"	2	8654	9179	24	"	2	4054	4579
25	"	2	8393	8918	25	"	2	3793	4318
26	"	2	8116	8641	26	"	2	3516	4041
27	"	2	7867	8392	27	"	2	3267	3792
AVE		54		10305	AVE		54		5705



F15 6 – D35 × 10520 (AVE)

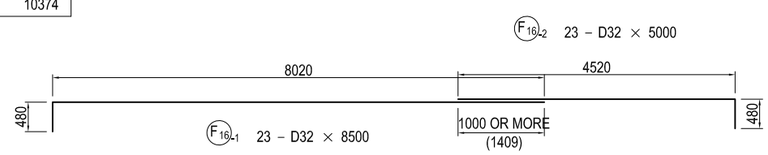
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F15 1	D35	2	10271	11321
2	"	2	9541	10591
3	"	2	8598	9648
AVE		6		10520



F20 42 – D32 × 9370 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F20 1	D32	2	10814	11774
2	"	2	10764	11724
3	"	2	10680	11640
4	"	2	10615	11575
5	"	2	10476	11436
6	"	2	10300	11260
7	"	2	10085	11045
8	"	2	9936	10896
9	"	2	9664	10624
10	"	2	9354	10314
11	"	2	8977	9937
12	"	2	8541	9501
13	"	2	8109	9069
14	"	2	7814	8774
15	"	2	7431	8391
16	"	2	7099	8059
17	"	2	6738	7698
18	"	2	5965	6925
19	"	2	5328	6288
20	"	2	4696	5656
21	"	2	3192	4152
AVE		42		9368

F19 23 – D32 × 11790



F16-1 23 – D32 × 8500

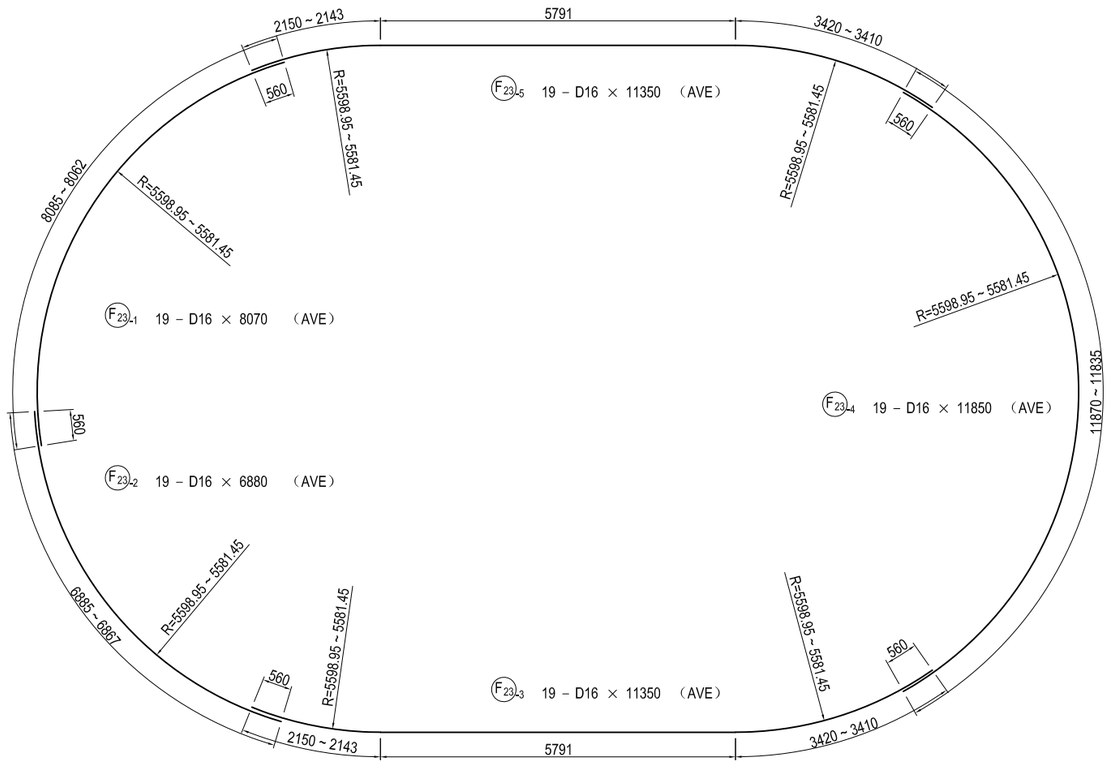
USE MATERIALS

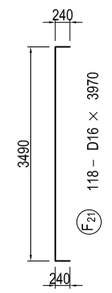
	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

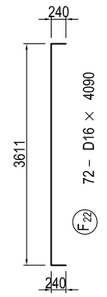
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

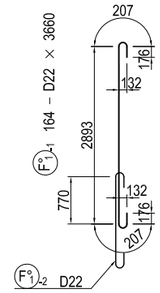
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	S .TOKUMARU		27. Nov.2017	BAR ARRANGEMENT OF P10 FOOTING (6)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2038

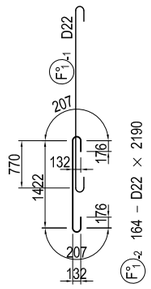
BAR ARRANGEMENT OF P10 FOOTING (7) S=1:100

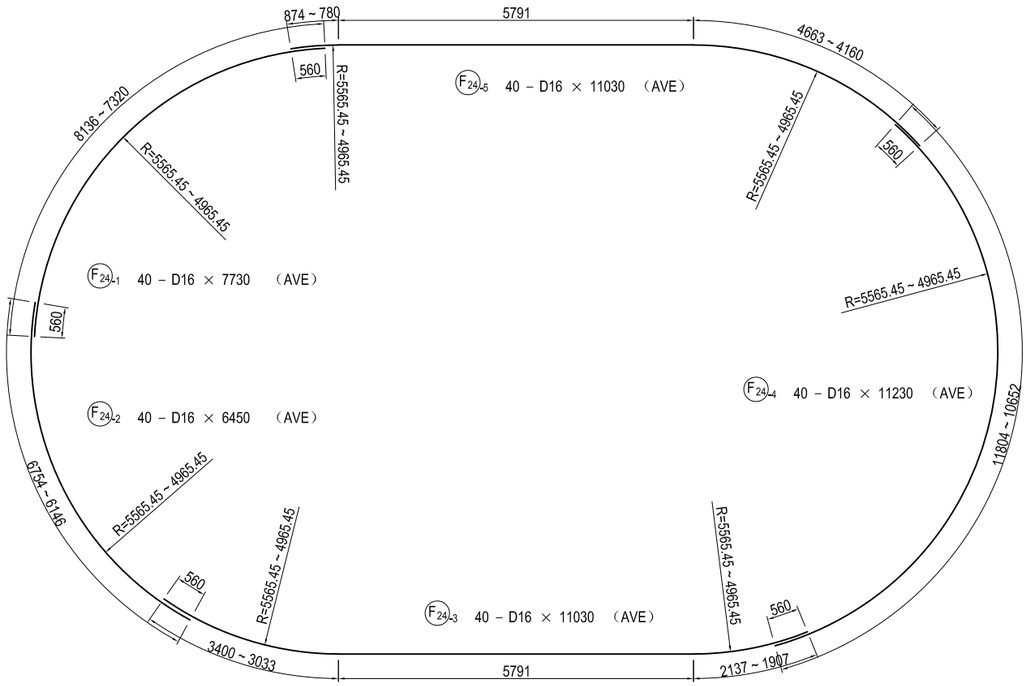












Note） The joint position of the reinfocing bar is rotated 180 degrees for each step arranged.

USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm^2	SD345

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
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.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	S .TOKUMARU		27. Nov.2017	BAR ARRANGEMENT OF P10 FOOTING (7)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2039

BAR ARRANGEMENT OF P10 FOOTING (8) NOT TO SCALE

BAR SCHEDULE

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
F 1-1	D51	9220	62	15.9	146.60	9089	(62) (AVE)
1-2	"	6920	62	"	110.03	6822	(AVE)
2-1	"	10000	60	"	159.00	9540	(60) (AVE)
2-2	"	5940	60	"	94.45	5667	(AVE)
3-1	"	8660	18	"	137.69	2478	(18)
3-2	"	4000	18	"	63.60	1145	
4-1	"	9270	5	"	147.39	737	(5)
4-2	"	3530	5	"	56.13	281	
5-1	"	7290	22	"	115.91	2550	(22) (AVE)
5-2	"	3930	22	"	62.49	1375	(AVE)
6	"	9820	18	"	156.14	2811	(AVE)
7-1	"	3330	2	"	52.95	106	(2)
7-2	"	2300	2	"	36.57	73	
8-1	"	7620	23	"	121.16	2787	(23)
8-2	"	4740	23	"	75.37	1734	
9-1	"	8560	20	"	136.10	2722	(20) (AVE)
9-2	"	2500	20	"	39.75	795	
10	"	9190	20	"	146.12	2922	(AVE)
11-1	"	3730	2	"	59.31	119	(2)
11-2	"	2500	2	"	39.75	80	
12-1	D35	8750	56	7.51	65.71	3680	(56) (AVE)
12-2	"	7480	56	"	56.17	3146	(AVE)
13	"	10370	6	"	77.88	467	(AVE)
14-1	"	10310	54	"	77.43	4181	(54) (AVE)
14-2	"	5710	54	"	42.88	2316	(AVE)
15	"	10520	6	"	79.01	474	(AVE)
16-1	D32	8500	23	6.23	52.96	1218	
16-2	"	5000	23	"	31.15	716	
17-1	"	8500	4	"	52.96	212	
17-2	"	4980	4	"	31.03	124	(AVE)
18	"	9550	38	"	59.50	2261	(AVE)
19	"	11790	23	"	73.45	1689	"
20	"	9370	42	"	58.38	2452	" (AVE)

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
F 21	D16	3970	118	1.56	6.19	730	
22	"	4090	72	"	6.38	459	"
23-1	"	8070	19	"	12.59	239	(AVE)
23-2	"	6880	19	"	10.73	204	(AVE)
23-3	"	11350	19	"	17.71	336	(AVE)
23-4	"	11850	19	"	18.49	351	(AVE)
23-5	"	11350	19	"	17.71	336	(AVE)
24-1	"	7730	40	"	12.06	482	(AVE)
24-2	"	6450	40	"	10.06	402	(AVE)
24-3	"	11030	40	"	17.21	688	(AVE)
24-4	"	11230	40	"	17.52	701	(AVE)
24-5	"	11030	40	"	17.21	688	(AVE)
					SUBTOTAL	82385 kg	
F° 1-1	D22	3660	164	3.04	11.13	1825	
1-2	"	2190	164	"	6.66	1092	"
					SUBTOTAL	2917 kg	

(MECHANICAL JOINT)

D51	53833 kg	(214)
D35	14264 "	(110)
D32	8672 "	
D22	2917 "	
D16	5616 "	
TOTAL	85302 kg	(324)

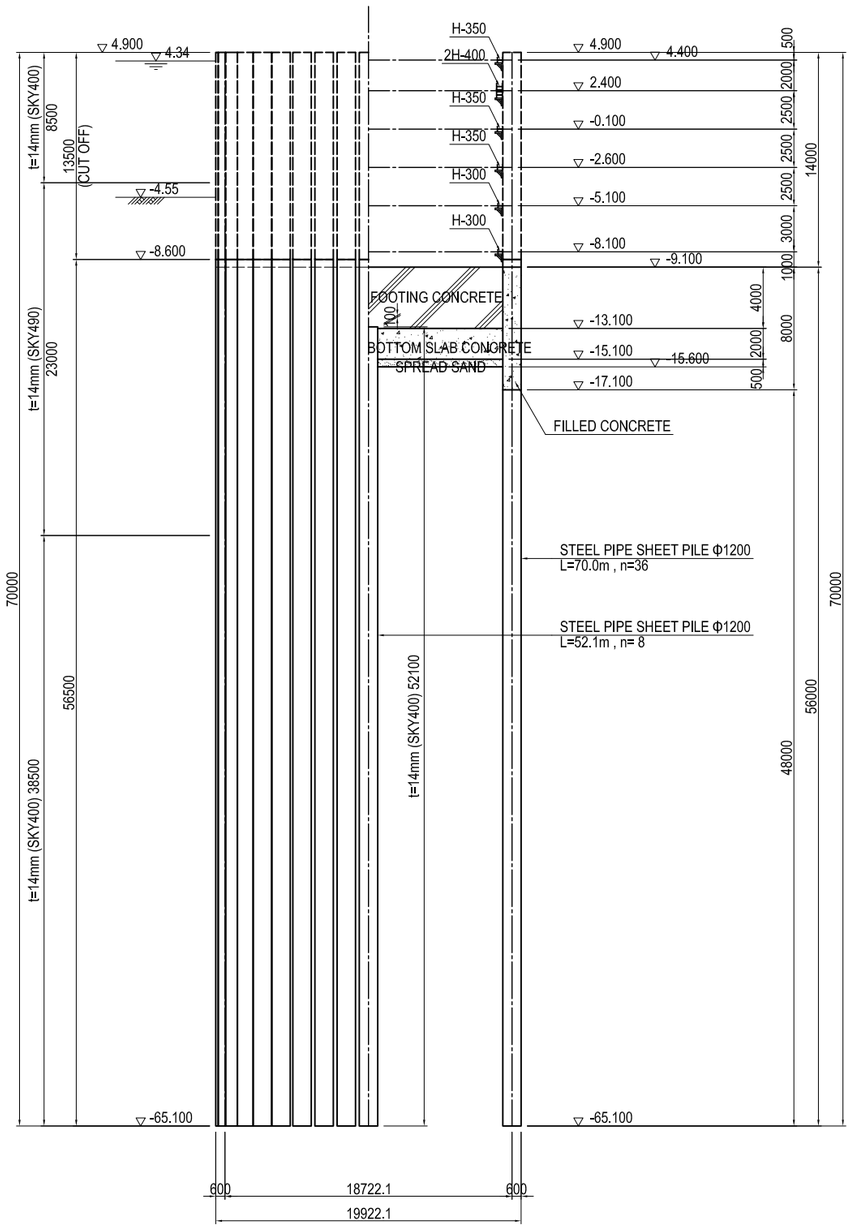
USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm^2	SD345

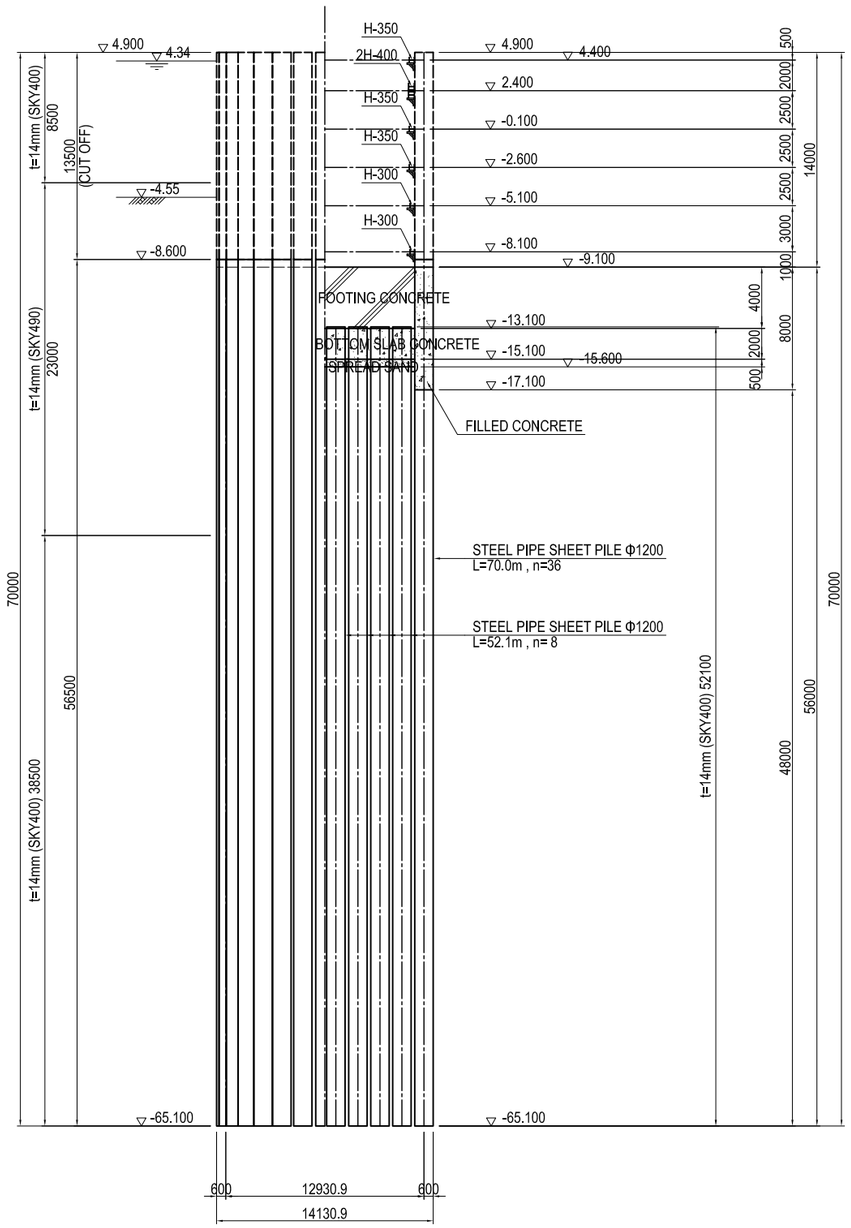
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
				NAME	SIGNATURE / DATE
				PREPARED BY	S .TOKUMARU — 27. Nov.2017
				CHECKED BY	T. HAYAKAWA — 28. Nov.2017
				APPROVED BY	Y. SANO — 29. Nov.2017
				DRAWING TITLE	BAR ARRANGEMENT OF P10 FOOTING (8)
				PACKAGE	1
				DWG No.	P1-CS-2040

GENERAL DRAWING OF STEEL PIPE SHEET PILE FOUNDATION OF P10 PIER S=1:400

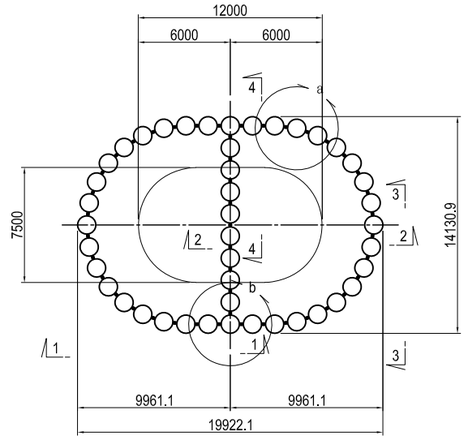
FRONT ELEVATION
1 - 1　　2 - 2



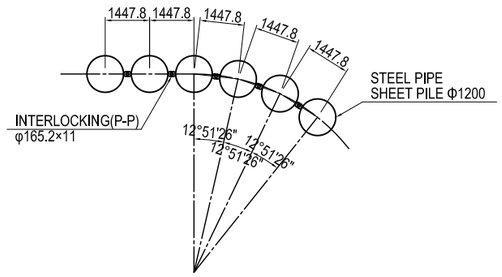
SIDE ELEVATION
3 - 3　　4 - 4



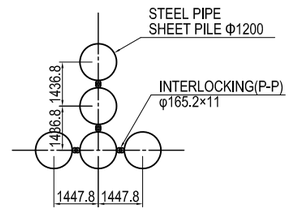
PLAN



DETAIL a S=1:200



DETAIL b S=1:200



USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

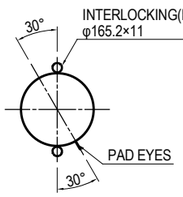
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	S .TOKUMARU		27. Nov.2017	GENERAL DRAWING OF STEEL PIPE SHEET PILE FOUNDATION OF P10 PIER	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2041

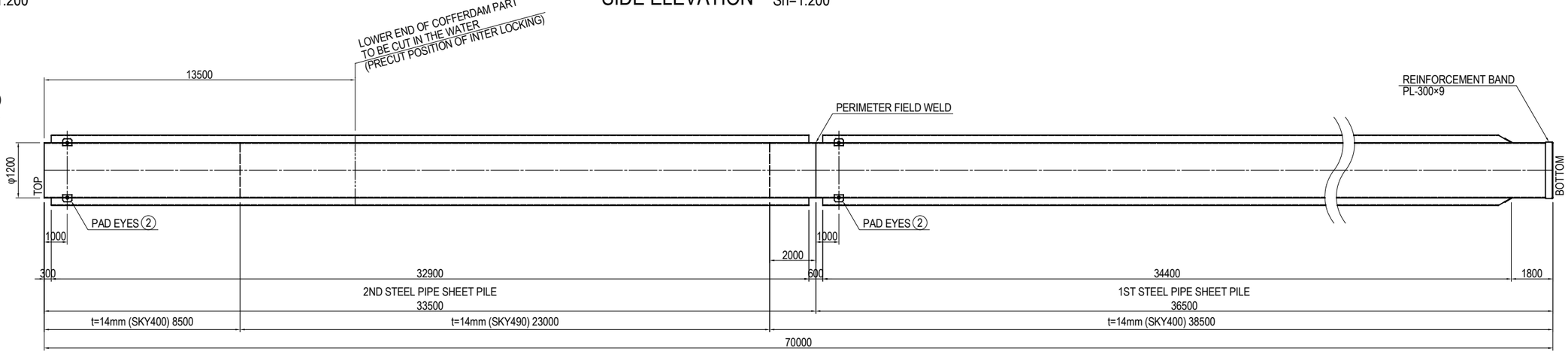
DETAIL OF STEEL PIPE SHEET PILE OF P10 PIER（1）

CROSS SECTION S=1:200

TYPE A

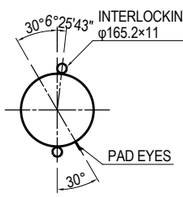


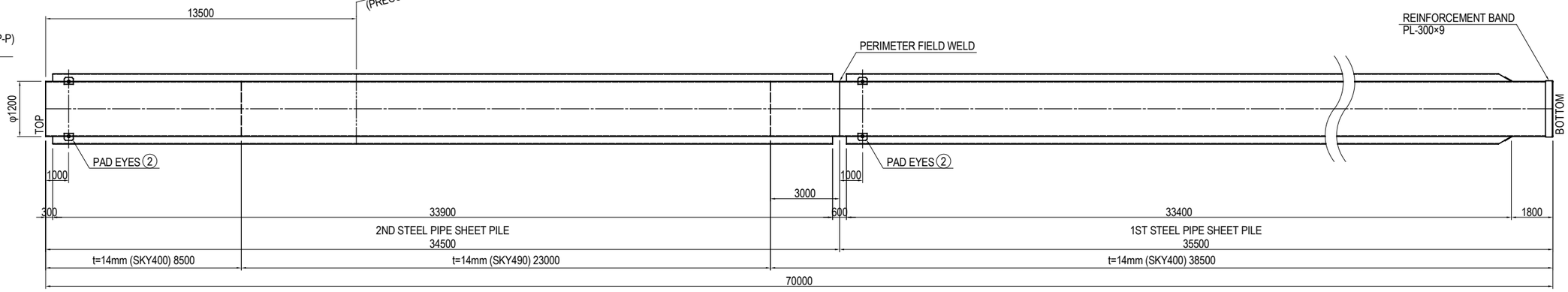
SIDE ELEVATION Sv=1:100 Sh=1:200



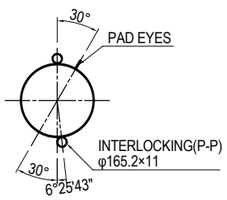
CROSS SECTION S=1:200

TYPE B

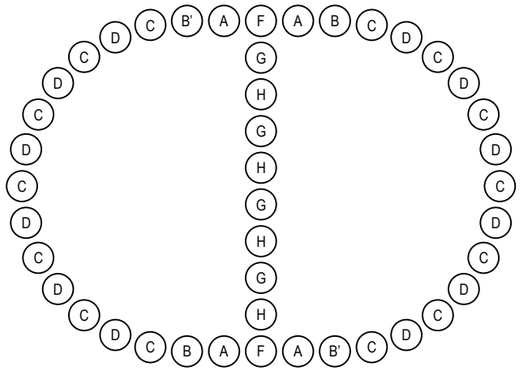




TYPE B'

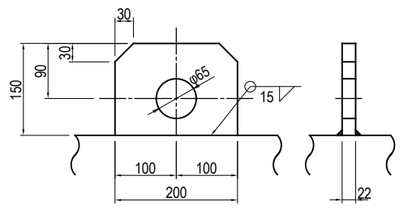


STEEL PIPE SHEET PILE TYPE AND POSITION

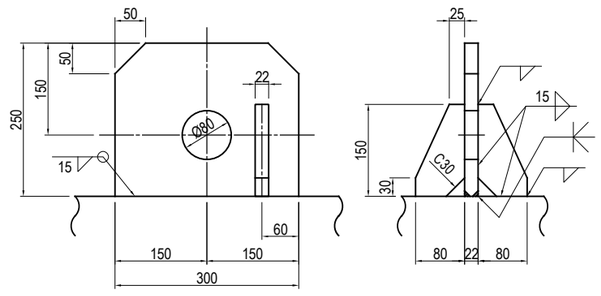


DETAIL OF EYES S=1:10

PAD EYES ① **PL-200**x150x22（SM**490A**）



PAD EYES ② **PL-300**x250x22（SM**490A**）



Note: Drawing of Pad Eye (metal fitting for hanging) and the position of perimeter field weld can be used for reference only.

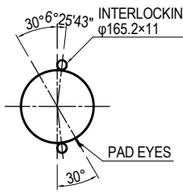
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	S .TOKUMARU		27. Nov.2017	DETAIL OF STEEL PIPE SHEET PILE OF P10 PIER（1）	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2042

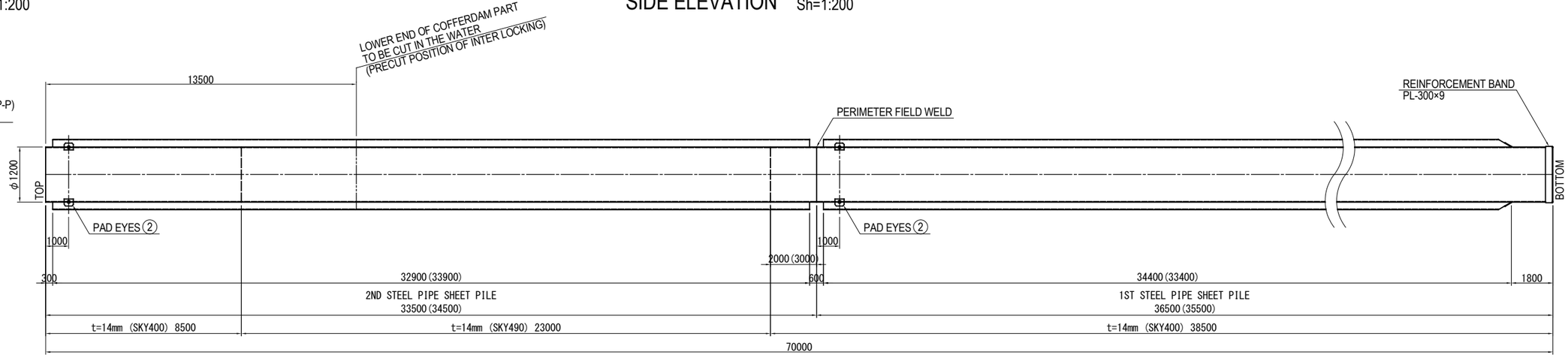
DETAIL OF STEEL PIPE SHEET PILE OF P10 PIER（2）

CROSS SECTION S=1:200

TYPE C
（TYPE D）

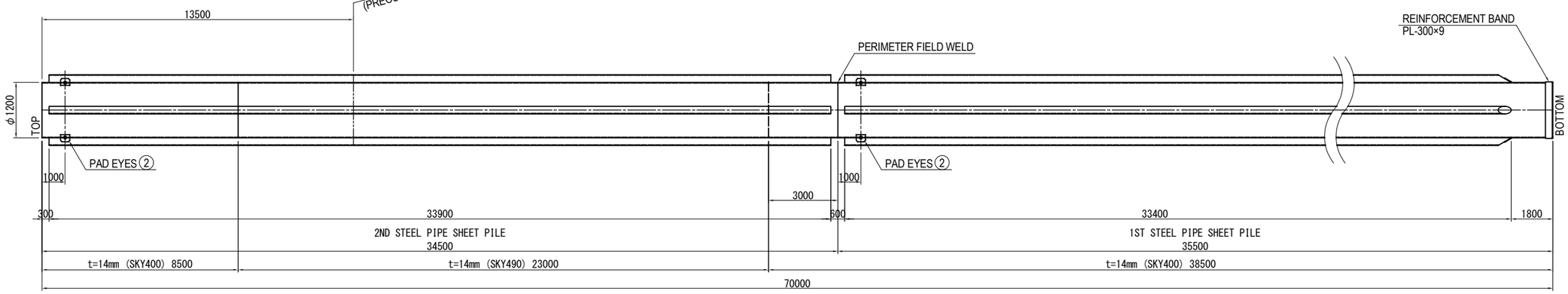


SIDE ELEVATION Sv=1:100 Sh=1:200



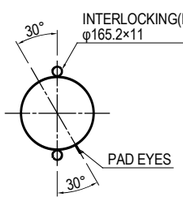
CROSS SECTION S=1:200

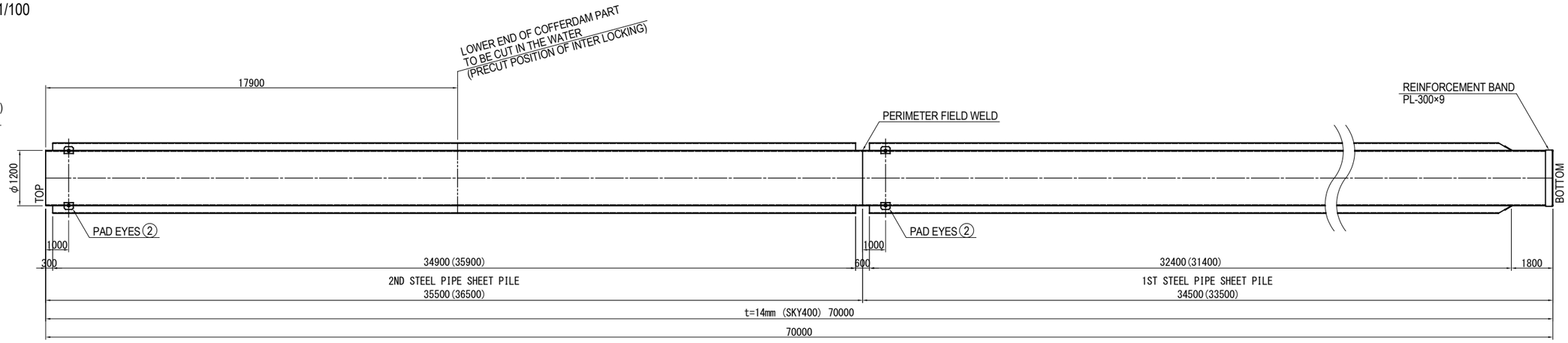
TYPE F



CROSS SECTION S=1/100

TYPE G
（TYPE H）





Note: Drawing of Pad Eye (metal fitting for hanging) and the position of perimeter field weld can be used for reference only.

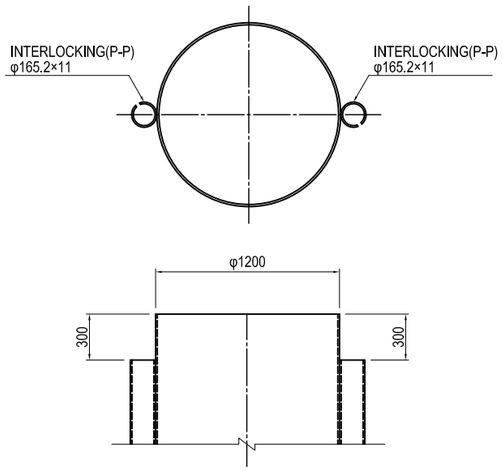
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	DRAWING TITLE: DETAIL OF STEEL PIPE SHEET PILE OF P10 PIER（2）

	NAME	SIGNATURE	DATE
PREPARED BY	S .TOKUMARU		27. Nov.2017
CHECKED BY	T. HAYAKAWA		28. Nov.2017
APPROVED BY	Y. SANO		29. Nov.2017

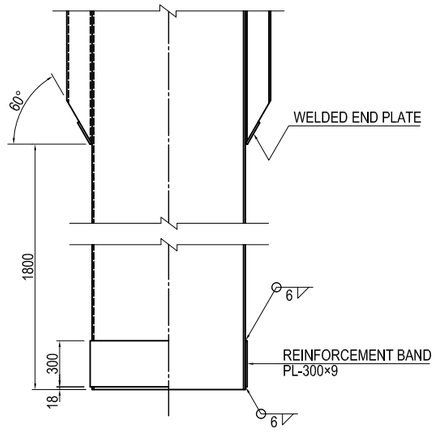
PACKAGE
1
DWG No.
P1-CS-2043

DETAIL OF INTERLOCKING OF STEEL PIPE SHEET PILE OF P10 PIER

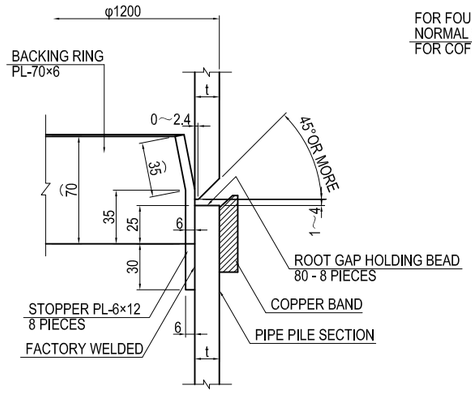
DETAIL OF STEEL PIPE SHEET PILE TOP S=1:40



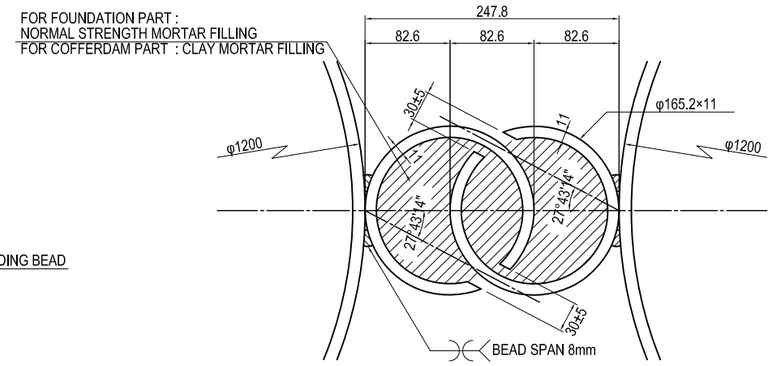
DETAIL OF STEEL PIPE SHEET PILE TOE S=1:40



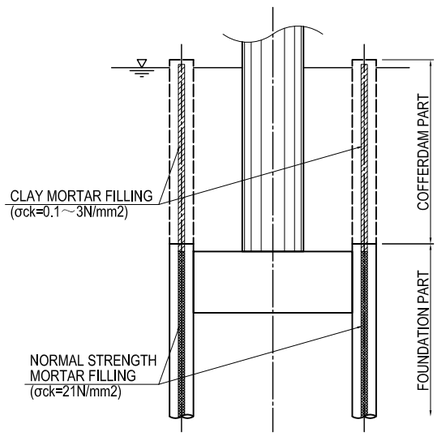
DETAIL OF PERIMETER FIELD WELDING OF STEEL PIPE SHEET PILE S=1:4



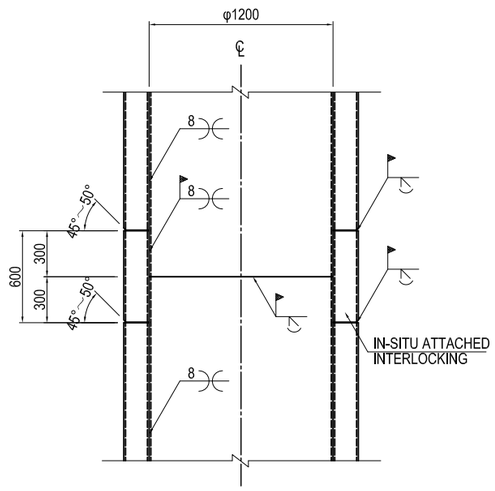
DETAIL OF CONNECTED INTERLOCKING(P-P) S=1:6



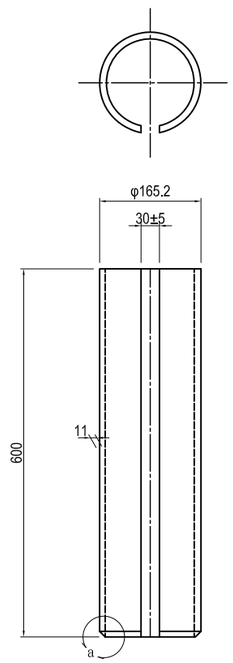
TREATMENT OF STEEL PIPE SHEET PILE INTERLOCKING



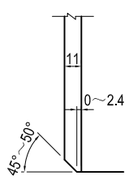
DETAIL OF IN-SITU LONGITUDINAL WELDING PART S=1:40



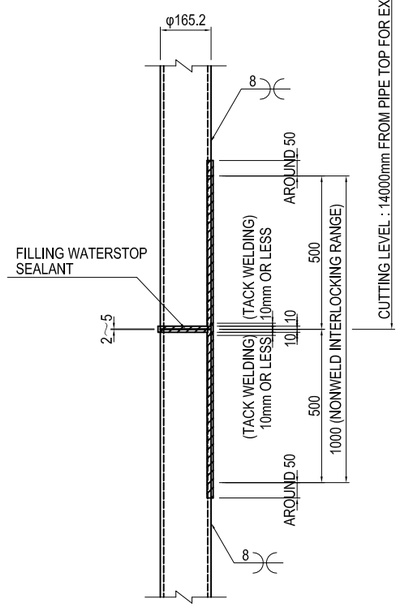
DETAIL OF IN-SITU ATTACHED INTERLOCKING S=1:10



DETAIL a

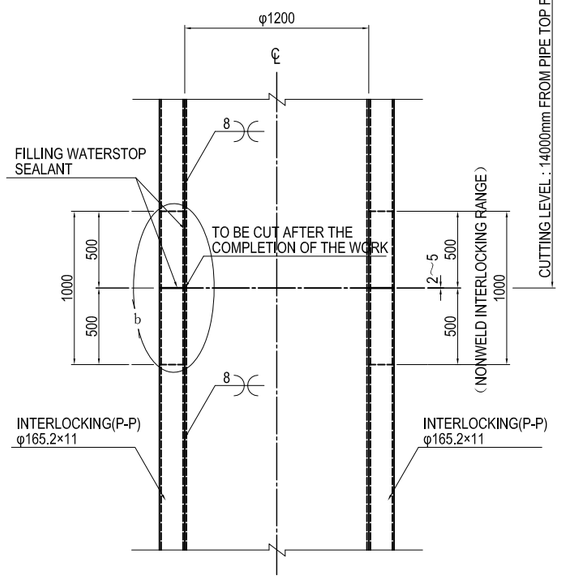


DETAIL b



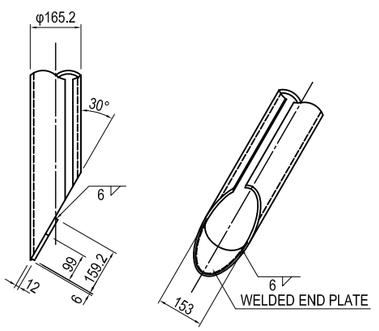
CUTTING LEVEL : 14000mm FROM PIPE TOP FOR EXTERNAL-WALL SHEET PILING

DETAIL OF PRECUT INTERRLOCKING S=1:40



CUTTING LEVEL : 14000mm FROM PIPE TOP FOR EXTERNAL-WALL SHEET PILING

DETAIL OF INTERRLOCKING TOE S=1:20



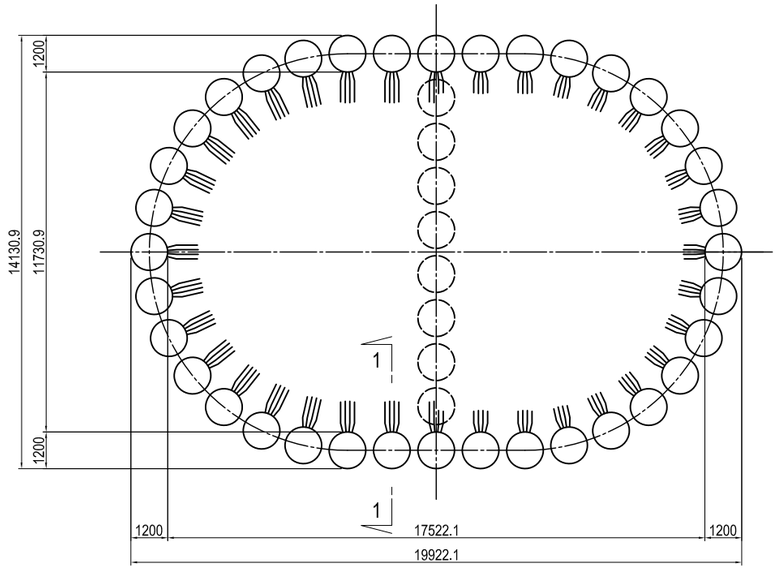
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE
PREPARED BY	S .TOKUMARU		27. Nov.2017
CHECKED BY	T. HAYAKAWA		28. Nov.2017
APPROVED BY	Y. SANO		29. Nov.2017

DRAWING TITLE	DETAIL OF INTERLOCKING OF STEEL PIPE SHEET PILE OF P10 PIER
PACKAGE	1
DWG No.	P1-CS-2044

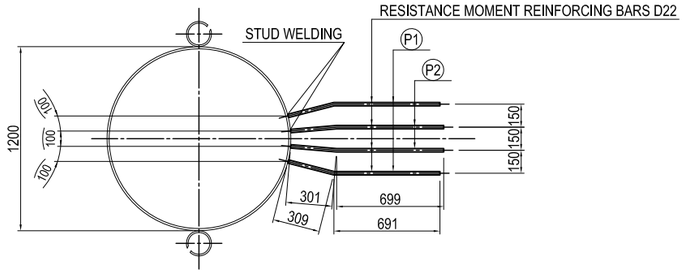
DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING OF P10 PIER

PLAN S=1:200

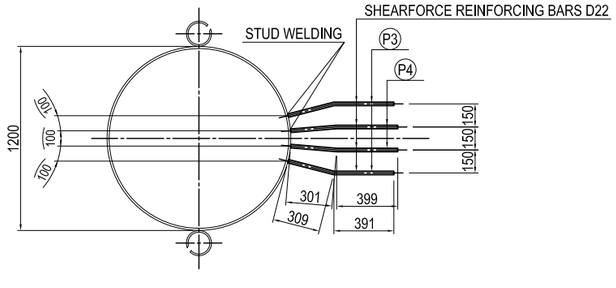


CROSS SECTION OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND REINFORCING BARS S=1:40

3 - 3 CROSS SECTION
(RESISTANCE MOMENT REINFORCING BARS CONNECTION PART)

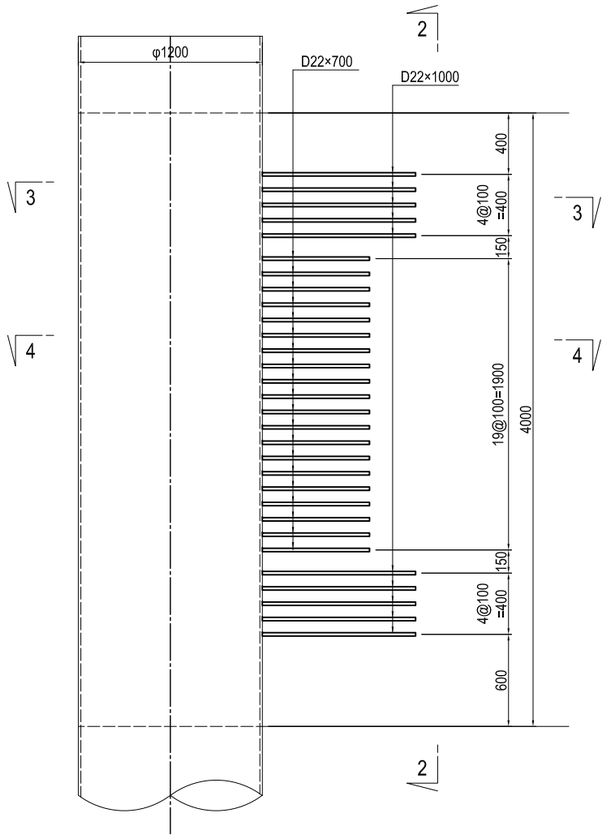


4 - 4 CROSS SECTION
(SHEARFORCE REINFORCING BARS CONNECTION PART)

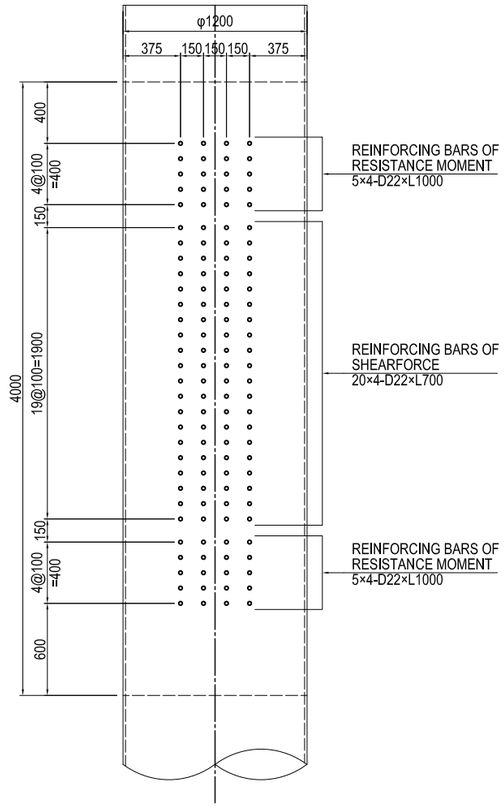


DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING S=1:40

1 - 1 CROSS SECTION



2 - 2 CROSS SECTION



FABRICATION OF REINFORCING BARS S=1:40

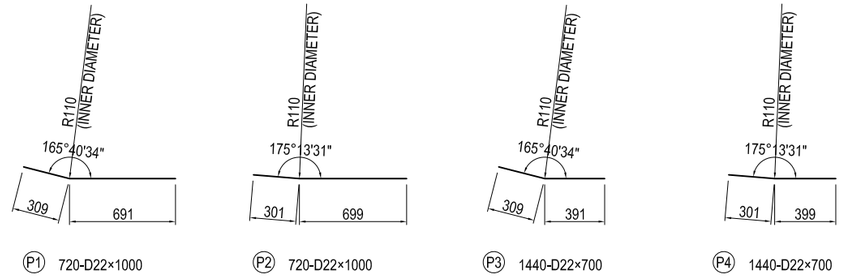


TABLE OF REINFORCING BARS

MARK	TYPE	LENGTH (mm)	PIECES (piece)	UNIT WEIGHT (kg/m)	UNIT WEIGHT (kg/piece)	WEIGHT (kg)	GRADE	MEMO
P1	D22	1000	720	3.04	3.04	2189	SD345 for STUD WELDING	
P2	D22	1000	720	3.04	3.04	2189	SD345 for STUD WELDING	
P3	D22	700	1440	3.04	2.13	3067	SD345 for STUD WELDING	
P4	D22	700	1440	3.04	2.13	3067	SD345 for STUD WELDING	
				D22	10512	kg		
				TOTAL WEIGHT	10512	kg		

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
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.

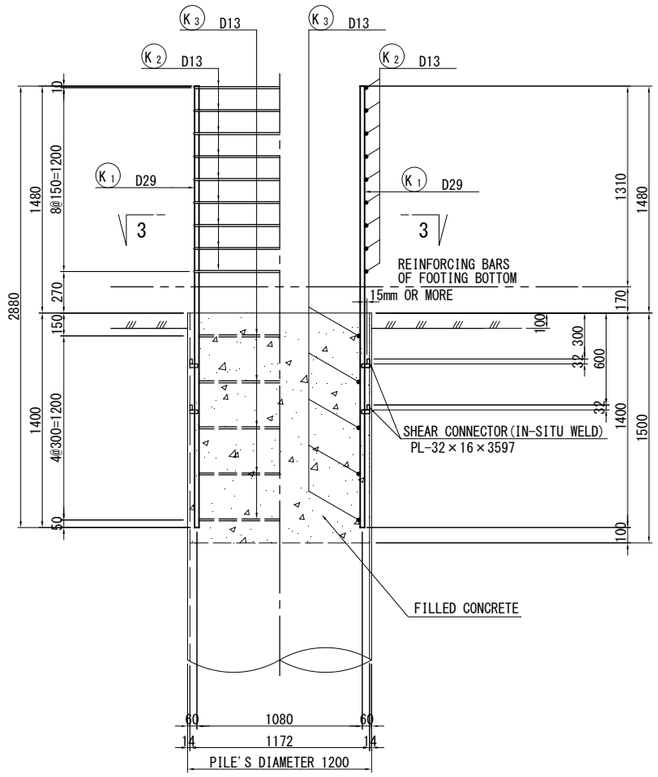
	NAME	SIGNATURE	DATE
PREPARED BY	S .TOKUMARU		27. Nov.2017
CHECKED BY	T. HAYAKAWA		28. Nov.2017
APPROVED BY	Y. SANO		29. Nov.2017

DRAWING TITLE	PACKAGE
DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING OF P10 PIER	1
	DWG No.
	P1-CS-2045

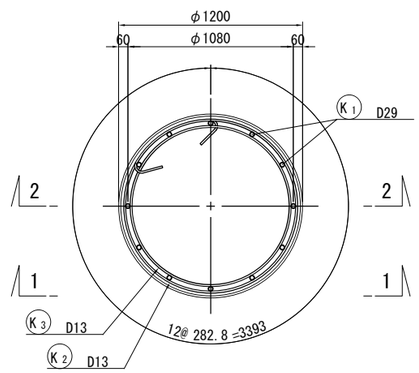
DETAIL OF PILE TOP CONNECTION TO THE BASE CONCRETE OF P10 PIER S=1:40

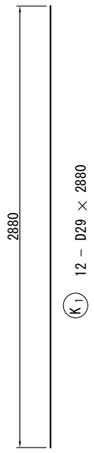
DETAIL OF PILE TOP

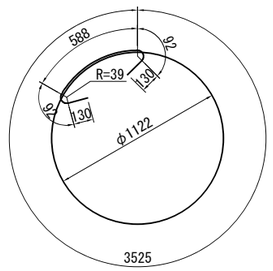
1 - 1　　2 - 2



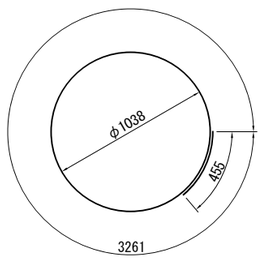
3 - 3







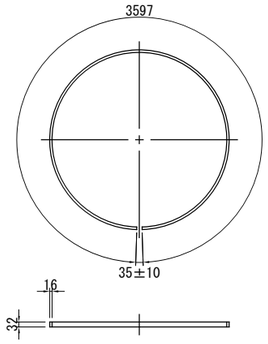
K2　9 - D13 × 4560



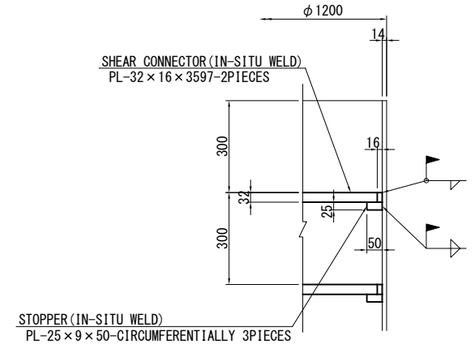
K3　5 - D13 × 3720

DETAIL OF ATTACHMENT OF SHEAR CONNECTOR

CENTER OF LENGTH



SETTING IN THE FIELD S=1:20



MATERIAL LIST

WEIGHT/EA.

MARKS	SECTION SIZE	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	MATERIAL	REMARKS
PILE TOP ACCOMPANYING ITEMS								
PL	PL-32*16	3597	2	4.019	14.456	28.9	SS400	SHEAR CONNECTOR
PL	PL-25*9	50	6	1.766	0.088	0.5	SS400	STOPPER
REINFORCEMENT								
K1	D29	2880	12	5.04	14.52	174	SD345	I
K2	D13	4560	9	0.995	4.54	41	SD345	○
K3	D13	3720	5	0.995	3.70	19	SD345	○
TOTAL						234		
FILLED CONCRETE　(σck = 24 N/mm^2)								
V = 1/4 × π × 1.172^2 × 1.300　=　1.402 m^3								

ITEM	DIVISION		UNIT CONTENT	WEIGHT/EA.	QUANTITY
NUMBER OF PILE			Number		8
PILE TOP	SS400	TOTAL	kg	29.4	235.2
REINFORCEMENT	SD345	D29	kg	174	1392
		D13	kg	60	480
		TOTAL	kg	234	1872
FILLED CONCRETE	σck = 24 N/mm^2		m^3	1.402	11.2

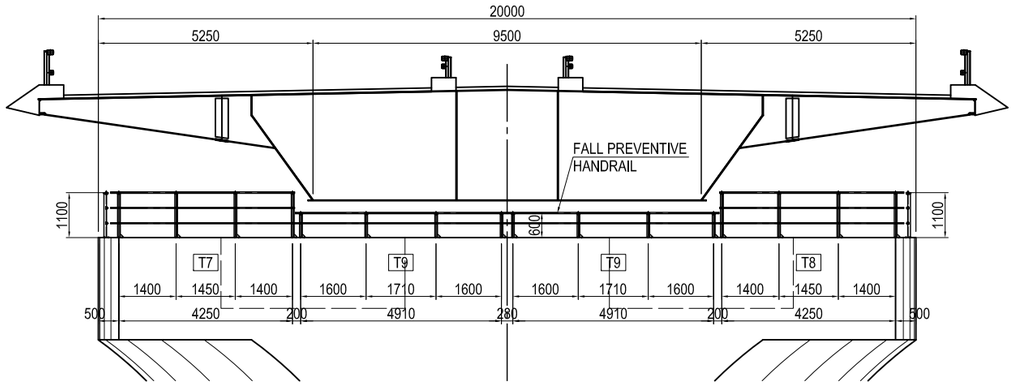
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	S.TOKUMARU		27. Nov.2017	DETAIL OF PILE TOP CONNECTION TO THE BASE CONCRETE OF P10 PIER	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2046

FALL PREVENTIVE HANDRAIL OF P10 PIER (1) S=1:150

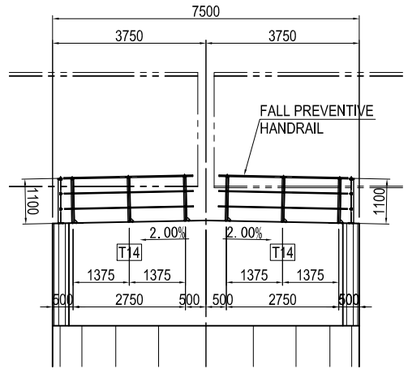
FRONT ELEVATION

2 -2

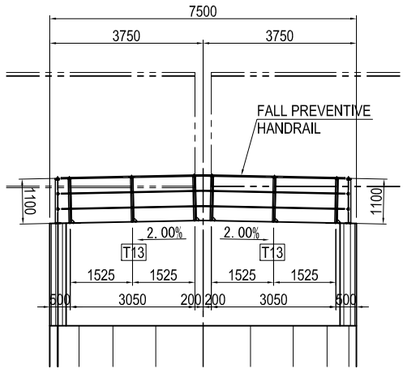


SIDE ELEVATION

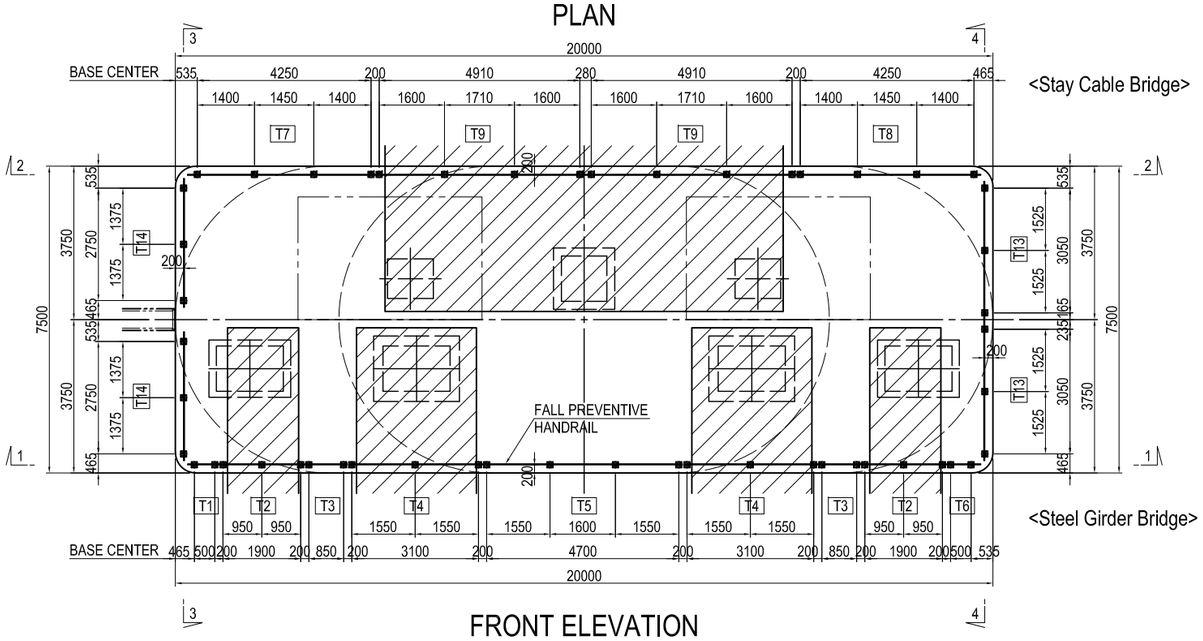
3 - 3



4 - 4



PLAN

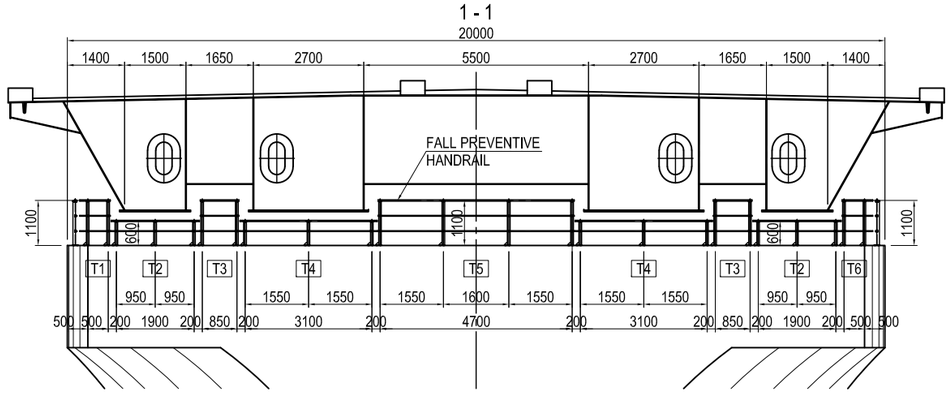


<Stay Cable Bridge>

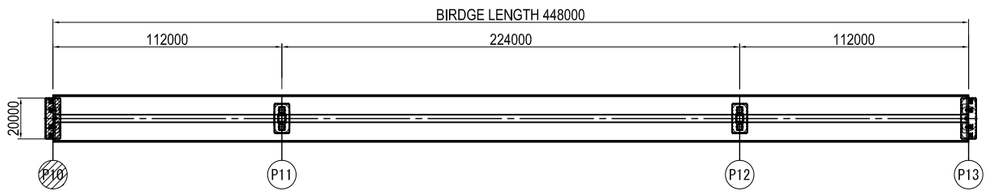
<Steel Girder Bridge>

FRONT ELEVATION

1 - 1



KEY PLAN



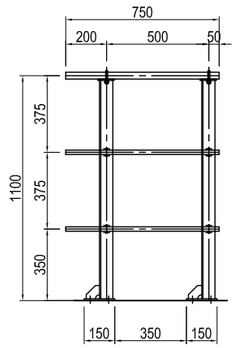
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE
PREPARED BY	S .TOKUMARU	徳丸	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川	28. Nov.2017
APPROVED BY	Y. SANO	佐野	29. Nov.2017

DRAWING TITLE	PACKAGE
FALL PREVENTIVE HANDRAIL OF P10 PIER (1)	1
	DWG No.
	P1-CS-2047

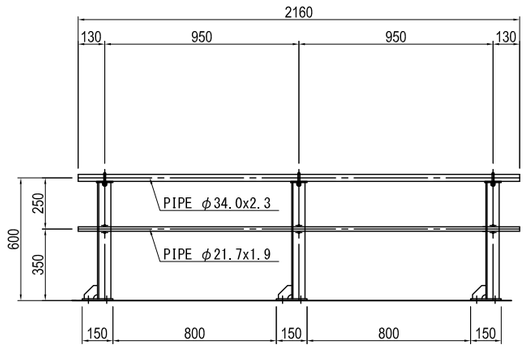
FALL PREVENTIVE HANDRAIL OF P10 PIER (2) S=1:30

T1



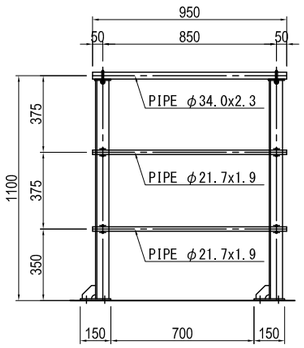
<T1> Production volume : 1(per pier)
1-PIPE φ34.0x2.3x750(STK400)
2-PIPE φ21.7x1.9x750(STK400)
2-L 65x65x6x1069
2-PL 115x6x80(SM400A)
2-BASE PL 150x9x150(SM400A)
2-RIB PL 65x6x65(SM400A)
2-U.Bolt M10 Nominal25C
4-U.Bolt M10 Nominal15C
8-Driving anchor M16x125

T2



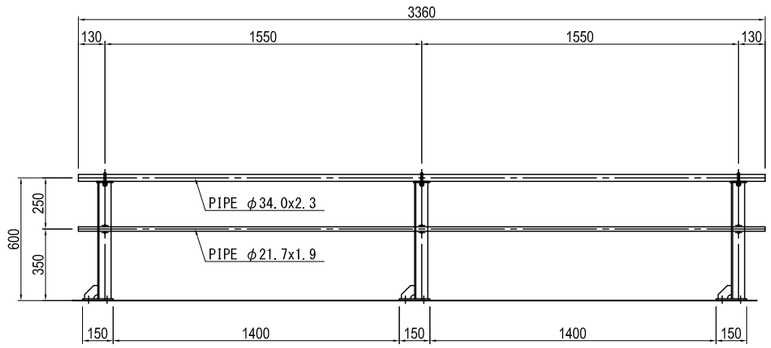
<T2> Production volume : 2(per pier)
1-PIPE φ34.0x2.3x2160(STK400)
1-PIPE φ21.7x1.9x2160(STK400)
3-L 65x65x6x569
3-PL 115x6x80(SM400A)
3-BASE PL 150x9x150(SM400A)
3-RIB PL 65x6x65(SM400A)
3-U.Bolt M10 Nominal25C
3-U.Bolt M10 Nominal15C
12-Driving anchor M16x125

T3



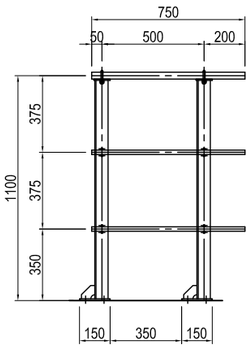
<T3> Production volume : 2(per pier)
1-PIPE φ34.0x2.3x950(STK400)
2-PIPE φ21.7x1.9x950(STK400)
2-L 65x65x6x1069
2-PL 115x6x80(SM400A)
2-BASE PL 150x9x150(SM400A)
2-RIB PL 65x6x65(SM400A)
2-U.Bolt M10 Nominal25C
4-U.Bolt M10 Nominal15C
8-Driving anchor M16x125

T4



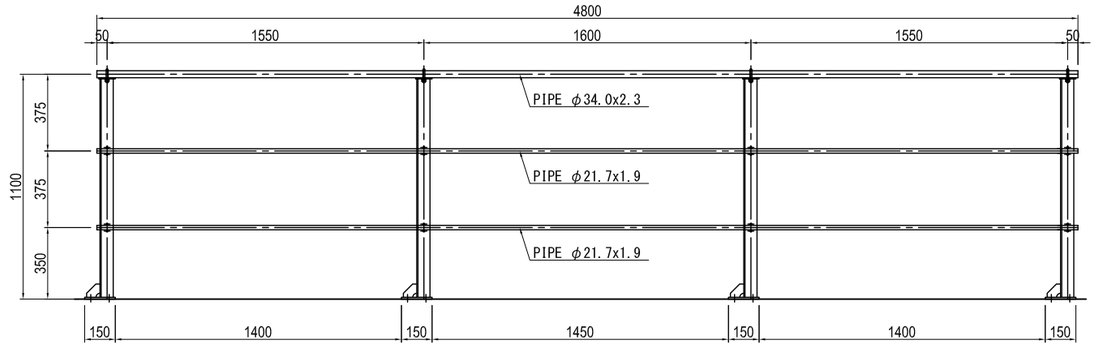
<T4> Production volume : 2(per pier)
1-PIPE φ34.0x2.3x3360(STK400)
1-PIPE φ21.7x1.9x3360(STK400)
3-L 65x65x6x569
3-PL 115x6x80(SM400A)
3-BASE PL 150x9x150(SM400A)
3-RIB PL 65x6x65(SM400A)
3-U.Bolt M10 Nominal25C
3-U.Bolt M10 Nominal15C
12-Driving anchor M16x125

T6



<T6> Production volume : 1(per pier)
1-PIPE φ34.0x2.3x750(STK400)
2-PIPE φ21.7x1.9x750(STK400)
2-L 65x65x6x1069
2-PL 115x6x80(SM400A)
2-BASE PL 150x9x150(SM400A)
2-RIB PL 65x6x65(SM400A)
2-U.Bolt M10 Nominal25C
4-U.Bolt M10 Nominal15C
8-Driving anchor M16x125

T5



<T5> Production volume : 1(per pier)
1-PIPE φ34.0x2.3x4800(STK400)
2-PIPE φ21.7x1.9x4800(STK400)
4-L 65x65x6x1069
4-PL 115x6x80(SM400A)
4-BASE PL 150x9x150(SM400A)
4-RIB PL 65x6x65(SM400A)
4-U.Bolt M10 Nominal25C
8-U.Bolt M10 Nominal15C
16-Driving anchor M16x125

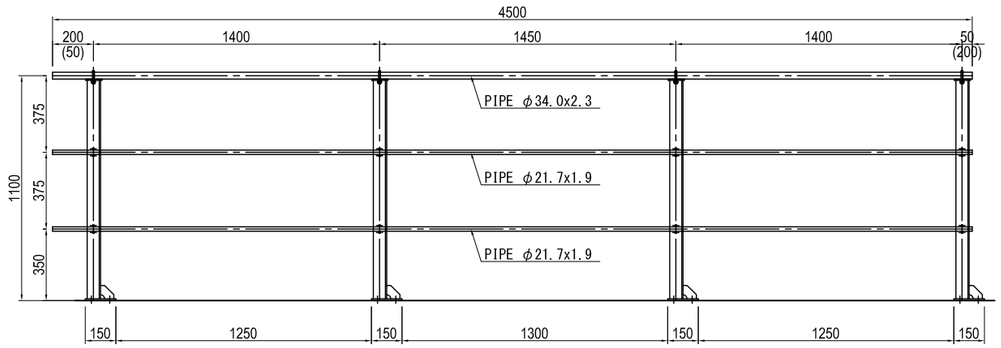
Note） 1 All materials without special mention are SS400.
2 The surface treatment of the steel member is hot-dip galvanized.
（The amount of zinc deposition shall be JIS H 8641 2 type HDZ 55.
However, bolts and nuts and members with a thickness
of less than 3.2 mm shall be HDZ35.)

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
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.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	S .TOKUMARU		27. Nov.2017	FALL PREVENTIVE HANDRAIL OF P10 PIER (2)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2048

FALL PREVENTIVE HANDRAIL OF P10 PIER (3) S=1:30

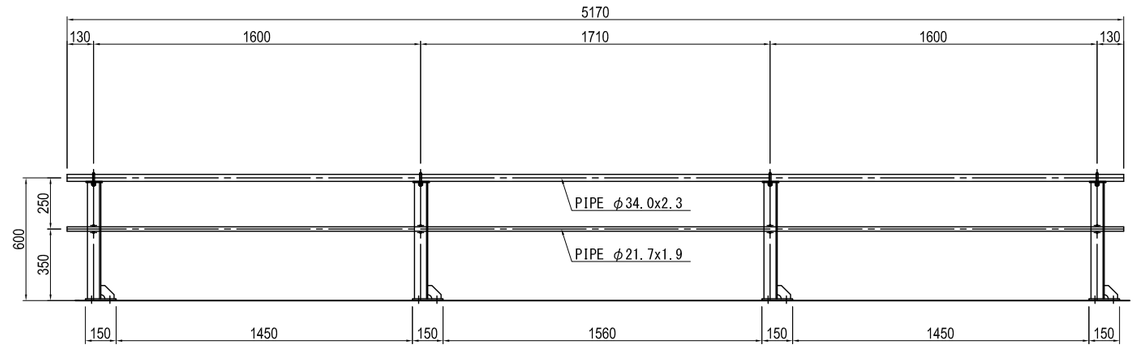
T7 (T8)



<T7, T8> Production volume : each1 (per pier)

1-PIPE φ34.0x2.3x4500 (STK400)	4-RIB PL 65x6x65 (SM400A)
2-PIPE φ21.7x1.9x4500 (STK400)	4-U.Bolt M10 Nominal25C
4-L 65x65x6x1069	8-U.Bolt M10 Nominal15C
4-PL 115x6x80 (SM400A)	16-Driving anchor M16x125
4-BASE PL 150x9x150 (SM400A)	

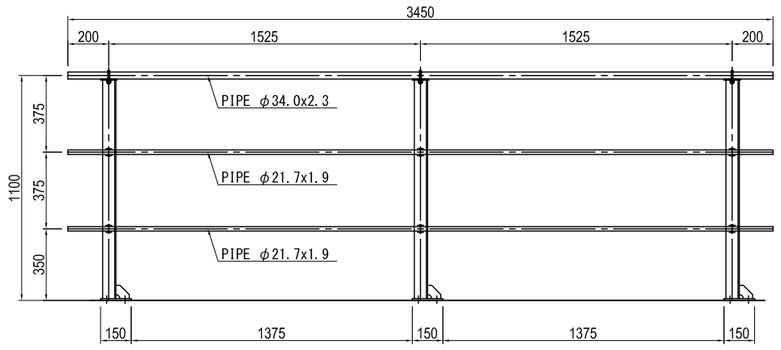
T9



<T9> Production volume : 2 (per pier)

1-PIPE φ34.0x2.3x5170 (STK400)	4-RIB PL 65x6x65 (SM400A)
1-PIPE φ21.7x1.9x5170 (STK400)	4-U.Bolt M10 Nominal25C
4-L 65x65x6x569	4-U.Bolt M10 Nominal15C
4-PL 115x6x80 (SM400A)	16-Driving anchor M16x125
4-BASE PL 150x9x150 (SM400A)	

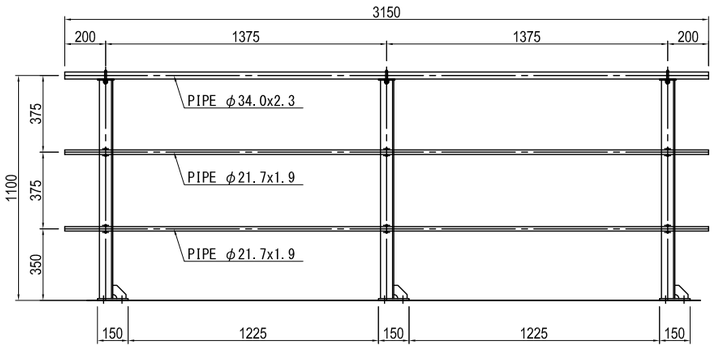
T13



<T13> Production volume : 2 (per pier)

1-PIPE φ34.0x2.3x3450 (STK400)	3-RIB PL 65x6x65 (SM400A)
2-PIPE φ21.7x1.9x3450 (STK400)	3-U.Bolt M10 Nominal25C
3-L 65x65x6x1068	6-U.Bolt M10 Nominal15C
3-PL 115x6x80 (SM400A)	12-Driving anchor M16x125
3-BASE PL 150x9x150 (SM400A)	

T14



<T14> Production volume : 2 (per pier)

1-PIPE φ34.0x2.3x3150 (STK400)	3-RIB PL 65x6x65 (SM400A)
2-PIPE φ21.7x1.9x3150 (STK400)	3-U.Bolt M10 Nominal25C
3-L 65x65x6x1068	6-U.Bolt M10 Nominal15C
3-PL 115x6x80 (SM400A)	12-Driving anchor M16x125
3-BASE PL 150x9x150 (SM400A)	

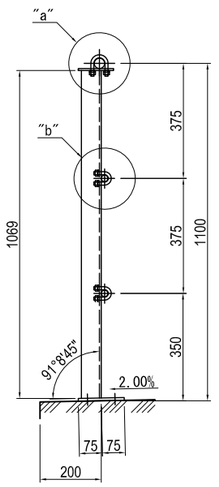
Note) 1 All materials without special mention are SS400.
2 The surface treatment of the steel member is hot-dip galvanized.
(The amount of zinc deposition shall be JIS H 8641 2 type HDZ 55.
However, bolts and nuts and members with a thickness
of less than 3.2 mm shall be HDZ35.)

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: 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	S .TOKUMARU		27. Nov.2017	FALL PREVENTIVE HANDRAIL OF P10 PIER (3)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2049

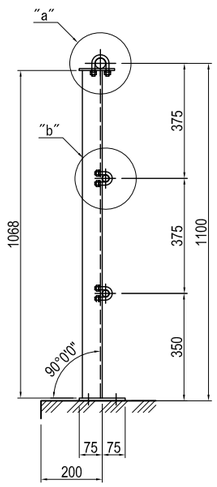
FALL PREVENTIVE HANDRAIL OF P10 PIER (4) S=1:20

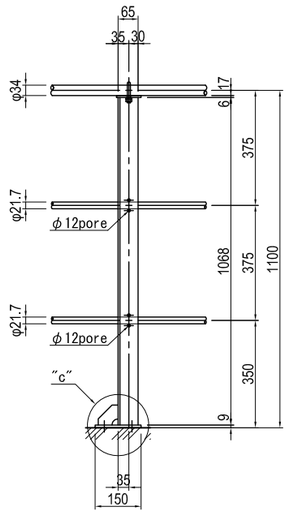
DETAIL OF HANDRAIL S=1:20

T1 T3 T5 T6 ～ T8

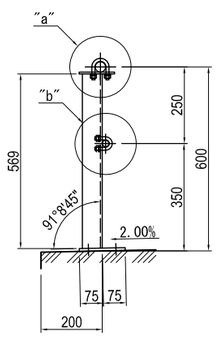


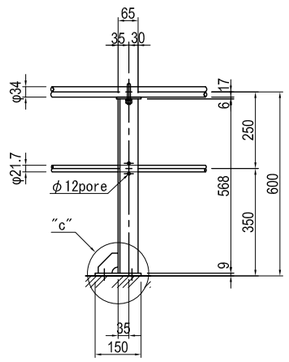
T13 T14





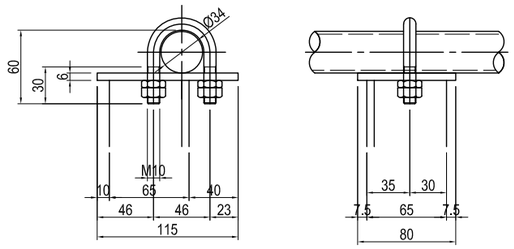
T2 T4 T9

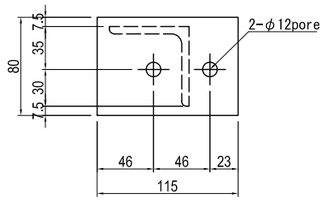




"a" DETAIL S=1:5

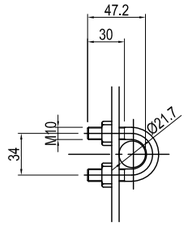
U.Bolt Nominal 25C



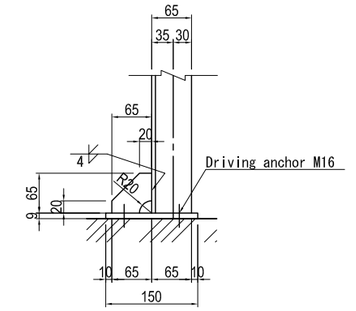


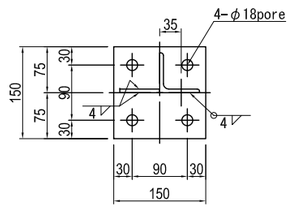
"b" DETAIL S=1:5

U.Bolt Nominal 15C



"c" DETAIL S=1:10



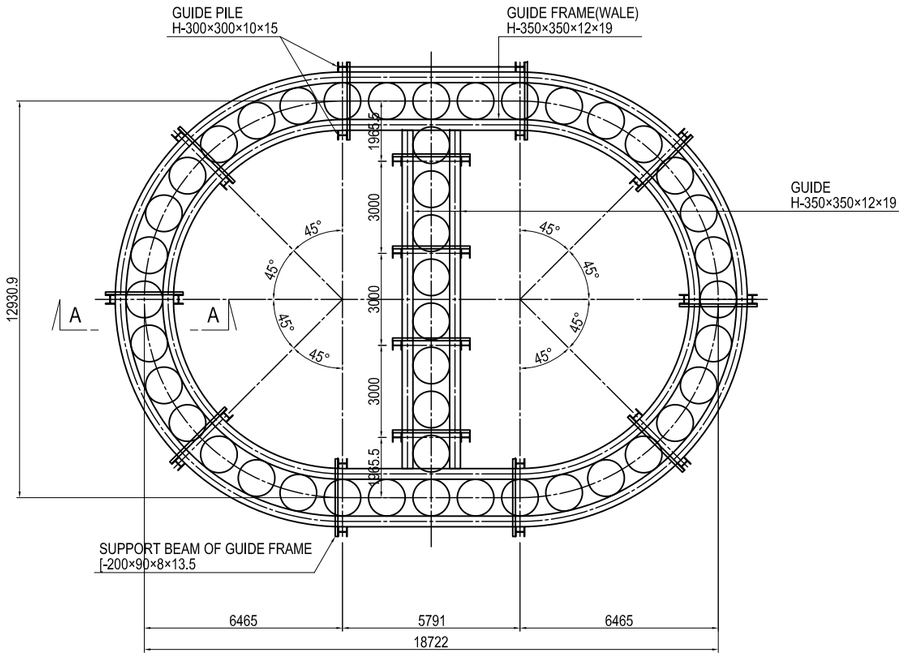


Note） 1 All materials without special mention are SS400.
2 The surface treatment of the steel member is hot-dip galvanized.
（The amount of zinc deposition shall be JIS H 8641 2 type HDZ 55.
However, bolts and nuts and members with a thickness
of less than 3.2 mm shall be HDZ35.）

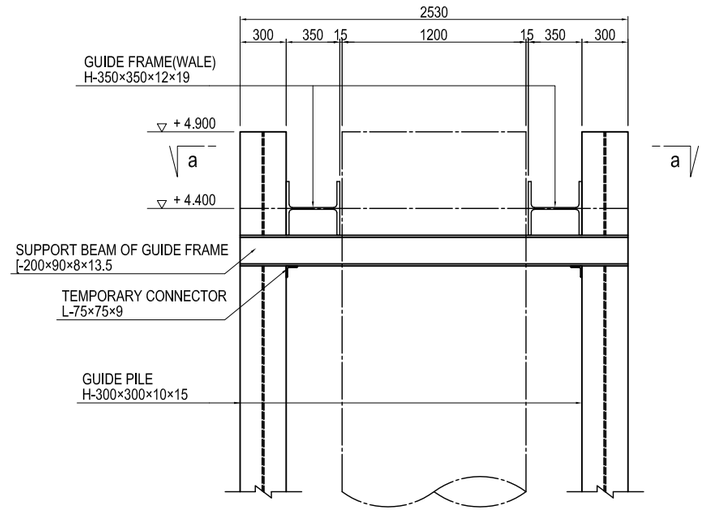
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	S .TOKUMARU		27. Nov.2017	FALL PREVENTIVE HANDRAIL OF P10 PIER (4)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2050

(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P10 PIER（1）

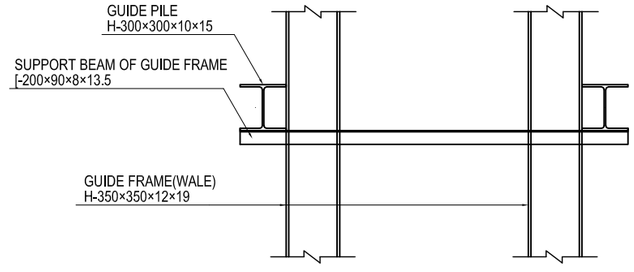
LAYOUT PLAN OF GUIDE FRAMES AND GUIDE PILES S=1:200



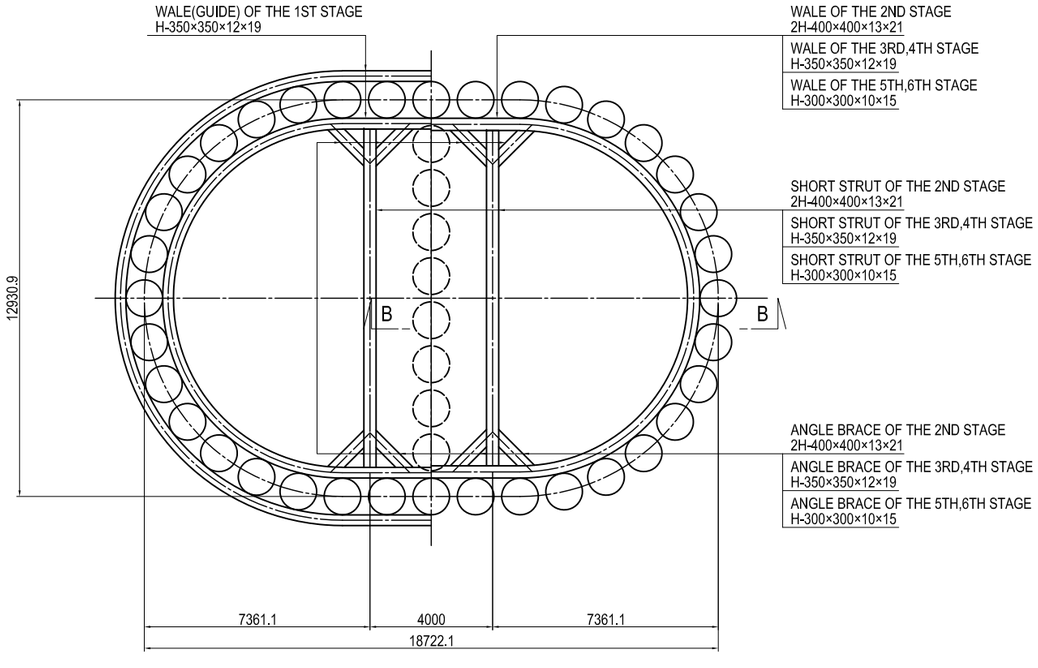
DETAIL OF ATTACHMENT OF GUIDE PILES AND GUIDE FRAMES S=1:40



a - a



LAYOUT PLAN OF STRUTS AND WALES S=1:200



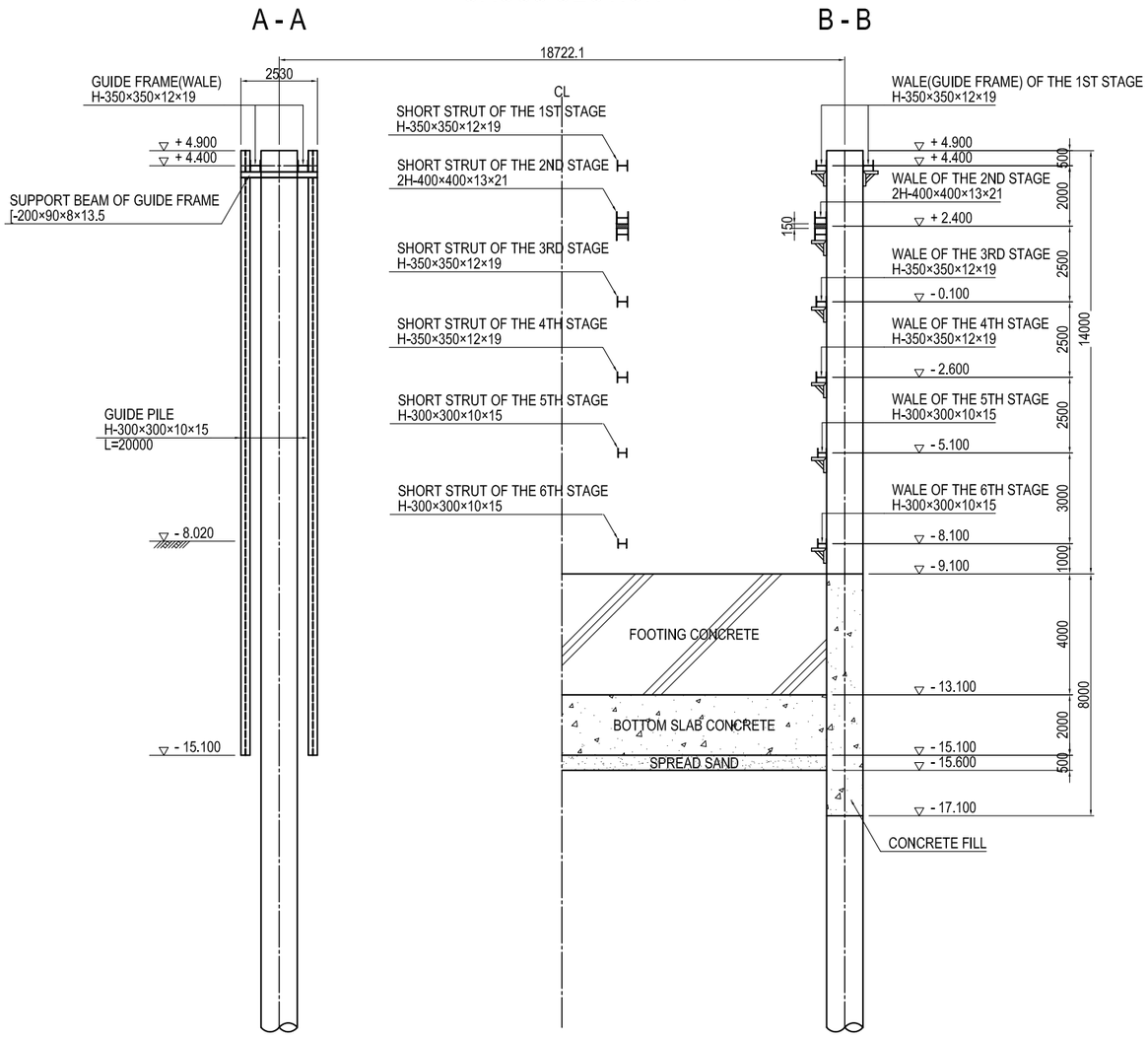
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE
PREPARED BY	T. HAYAKAWA		27. Nov.2017
CHECKED BY	T. HAYAKAWA		28. Nov.2017
APPROVED BY	Y. SANO		29. Nov.2017

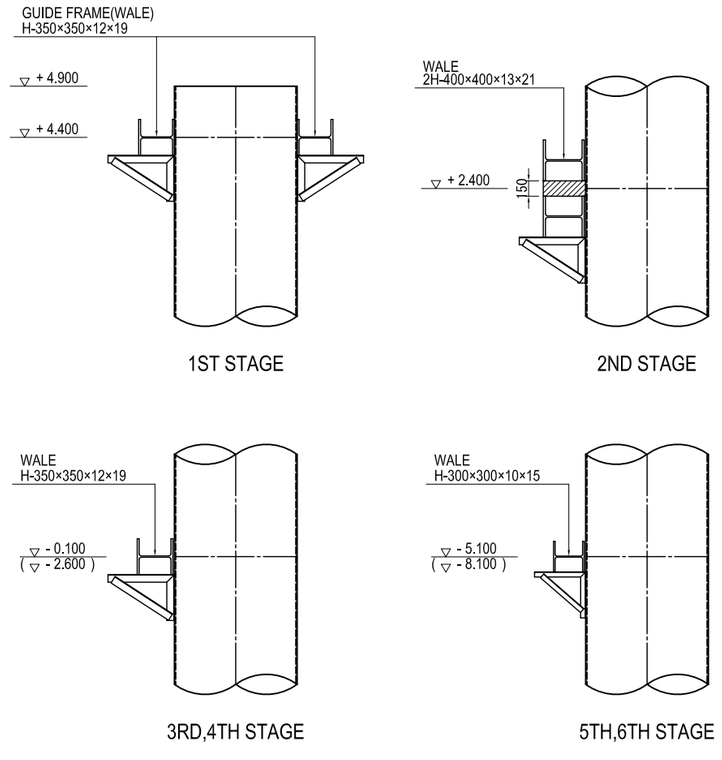
DRAWING TITLE	PACKAGE
(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P10 PIER (1)	1
	DWG No.
	P1-CS-2051

(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P10 PIER（2）

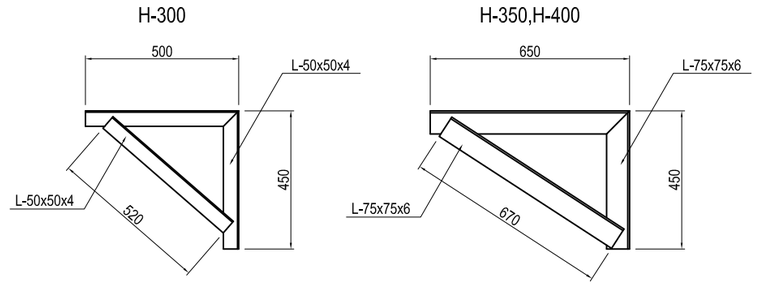
CROSS SECTION S=1:200



DETAIL OF ATTACHMENT OF WALE S=1:60



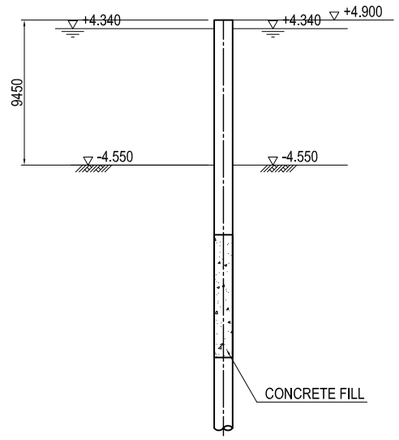
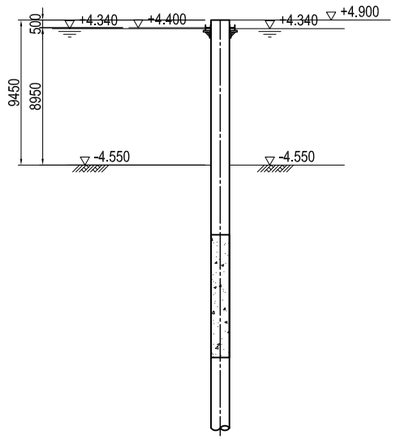
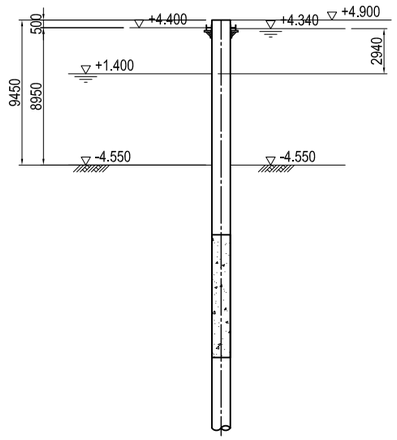
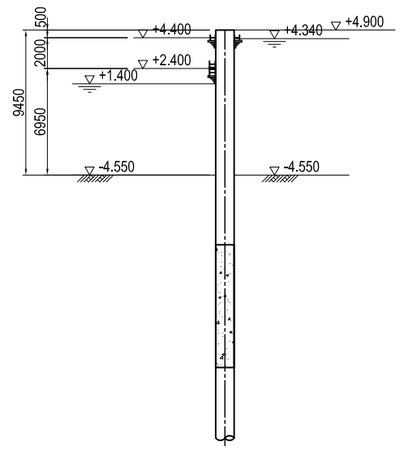
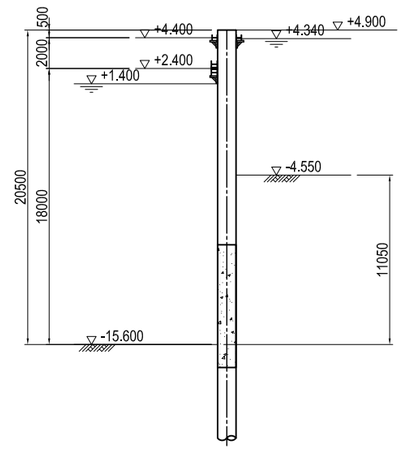
DETAIL OF BRACKET S=1:20

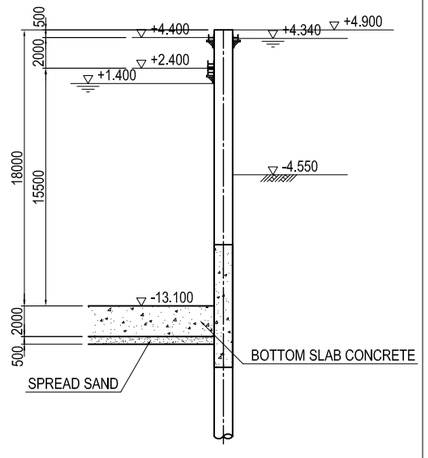
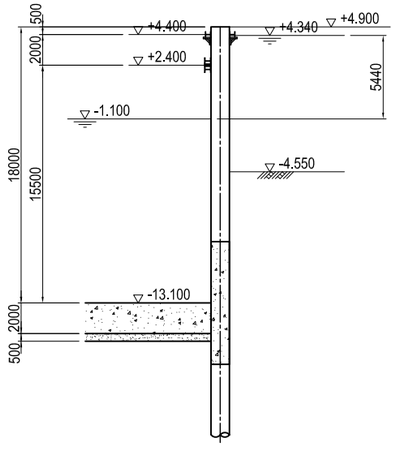
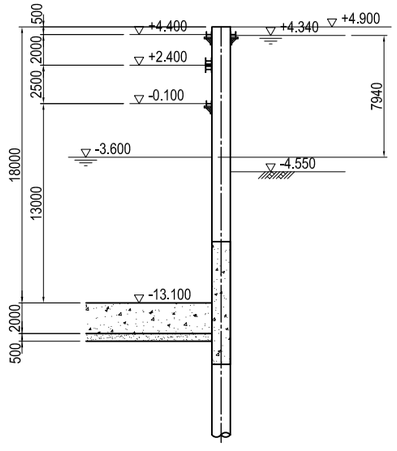
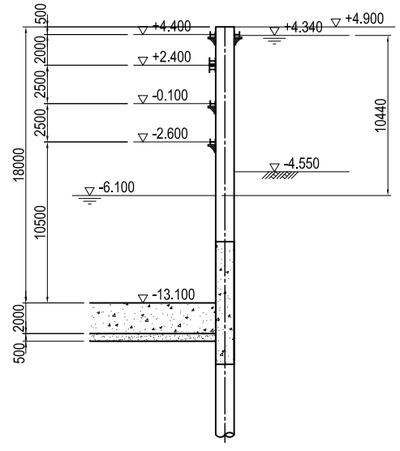
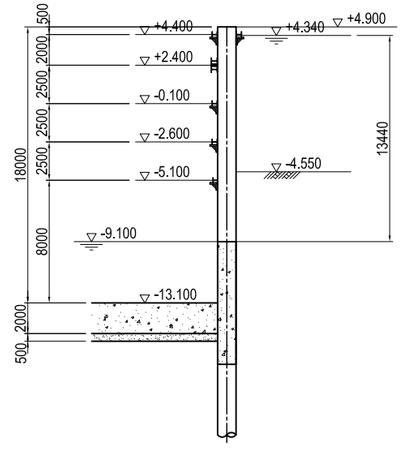


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T. HAYAKAWA		27. Nov.2017	(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P10 PIER (2)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2052

(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P10 PIER（1）S=1:400

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
				
Excavate inside of exterior sheet pilles and filled with concrete as shown.	The 1st support Installation.	Draining the inside of cofferdam up to +1.400m level.	The 2nd support Installation.	Underwater excavation up to -15.600m level.

STEP 6	STEP 7	STEP 8	STEP 9	STEP 10
				
Placement of spread sand followed by casting undeawater bottom slab concrete.	Draining the inside of cofferdam up to -1.100m level.	Draining the inside of cofferdam up to -3.600m level. after the 3rd support Installation.	Draining the inside of cofferdam up to -6.100m level. after the 4th support Installation.	Draining the inside of cofferdam up to -9.100m level. after the 5th support Installation.

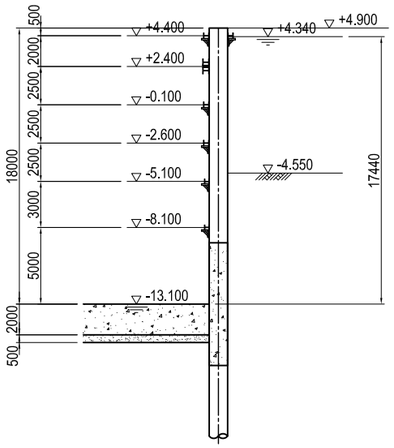
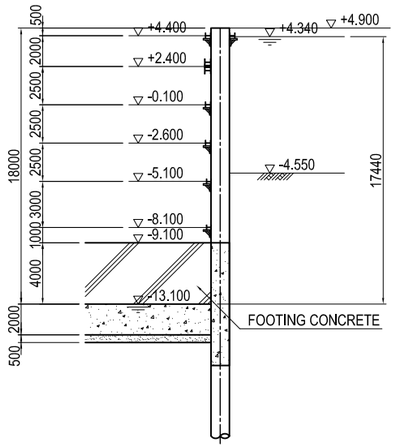
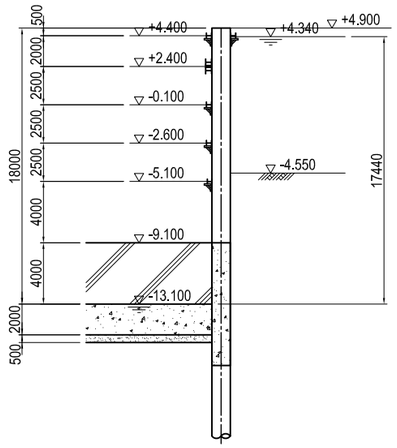
Note : This drawing can be used for reference only.

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	T. HAYAKAWA		27. Nov.2017
CHECKED BY	T. HAYAKAWA		28. Nov.2017
APPROVED BY	Y. SANO		29. Nov.2017

DRAWING TITLE	PACKAGE
(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P10 PIER（1）	1
	DWG No.
	P1-CS-2053

(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P10 PIER（2） S=1:400

STEP 11	STEP 12	STEP 13		
				
Draining the inside of cofferdam up to -13.100m level. after the 6th support Installation.	Casting of footing concrete.	The 6th support Removal.		

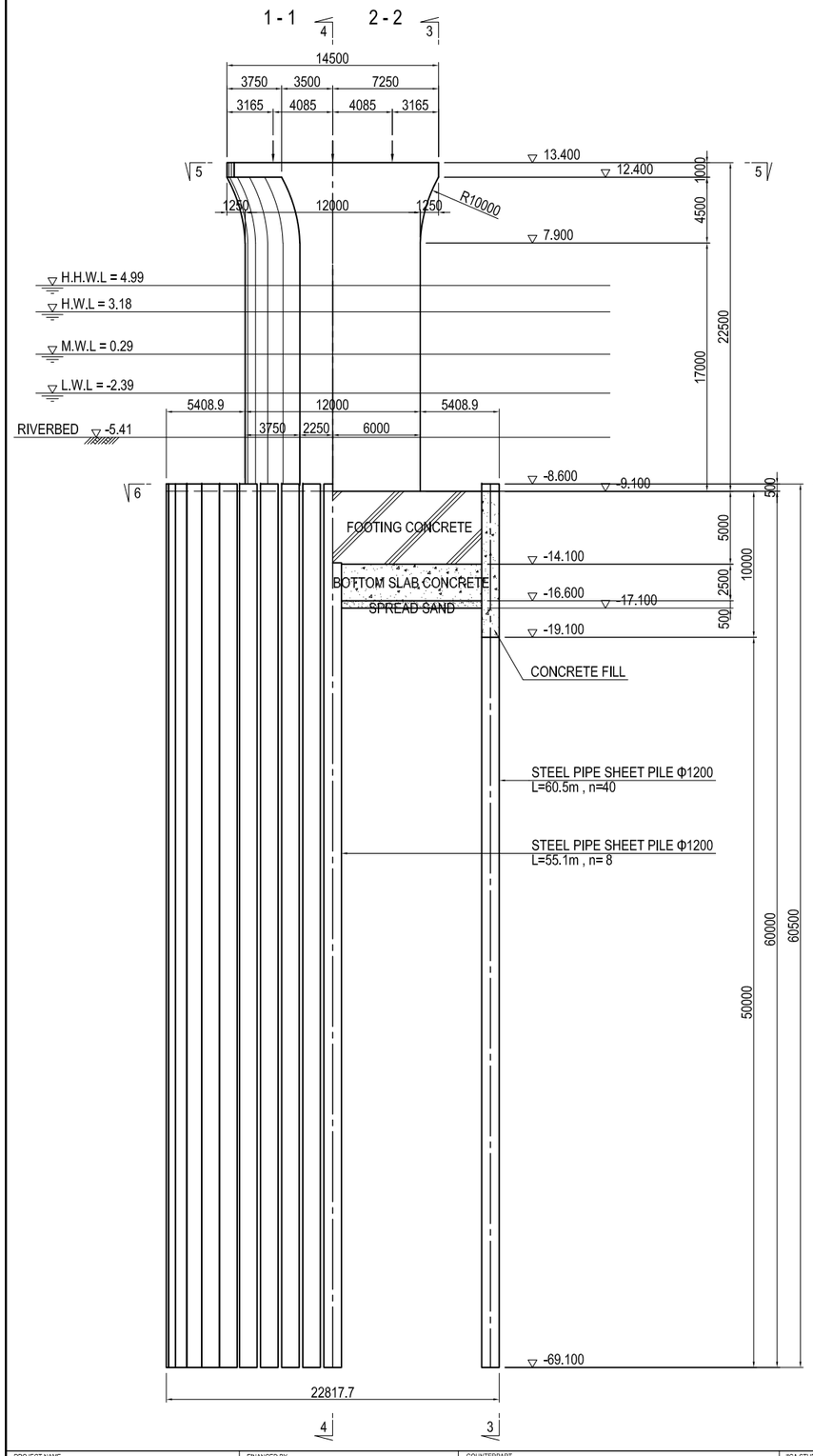
Note : This drawing can be used for reference only.

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.		

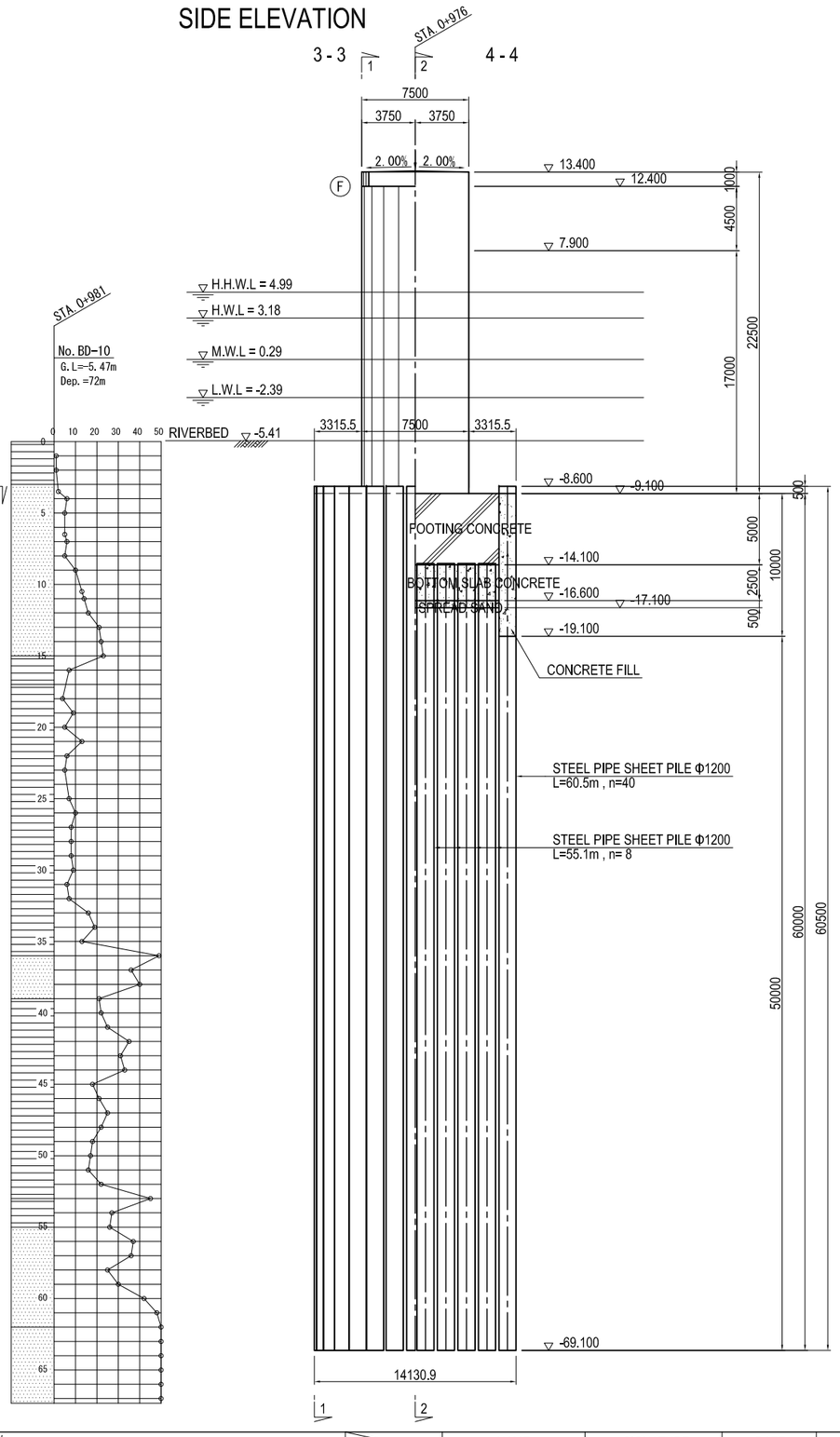
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T. HAYAKAWA		27. Nov.2017	(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P10 PIER（2）	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2054

GENERAL ARRANGEMENT OF P11 PIER （1）S=1:400

FRONT ELEVATION

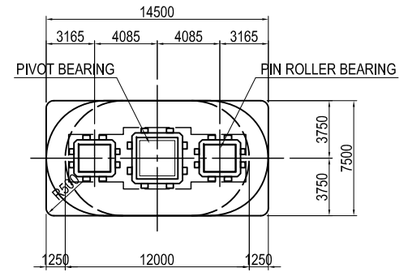


SIDE ELEVATION



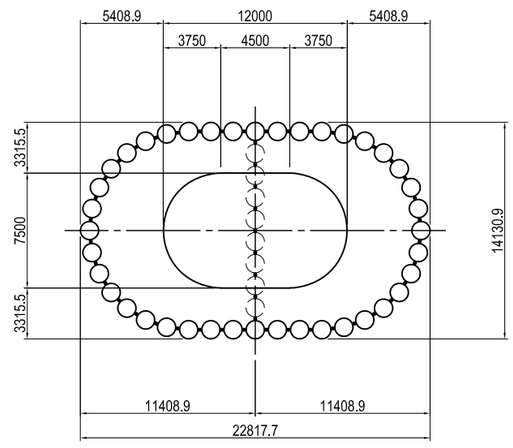
PLAN

5 - 5



PLAN

6 - 6



USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345
FOOTING	σck = 24 N/mm²	SD345

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	T.TOMODA 友田智進 27. Nov.2017
				CHECKED BY	T. HAYAKAWA 早川知彦 28. Nov.2017
				APPROVED BY	Y. SANO 佐野 祐一 29. Nov.2017

DRAWING TITLE: GENERAL ARRANGEMENT OF P11 PIER（1）

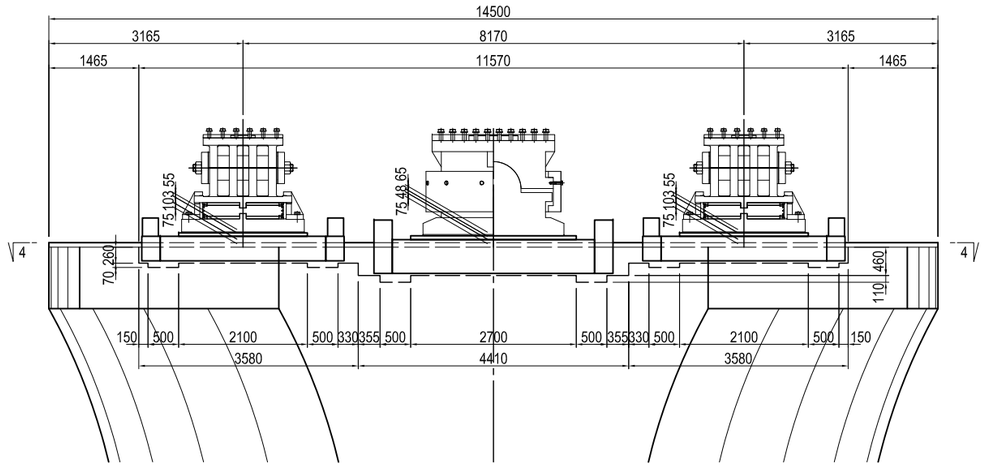
PACKAGE: 1

DWG No. P1-CS-2101

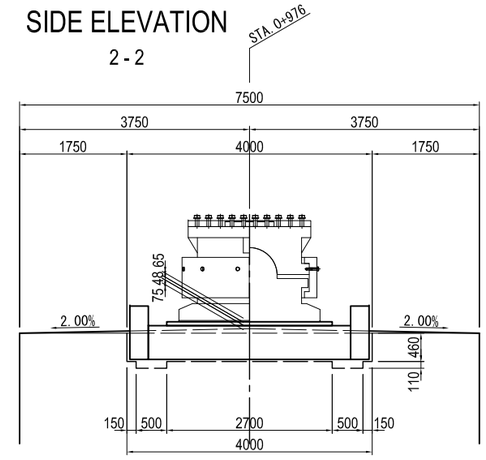
GENERAL ARRANGEMENT OF P11 PIER （2）S=1:100

DETAIL OF BEARING AND ANCHOR

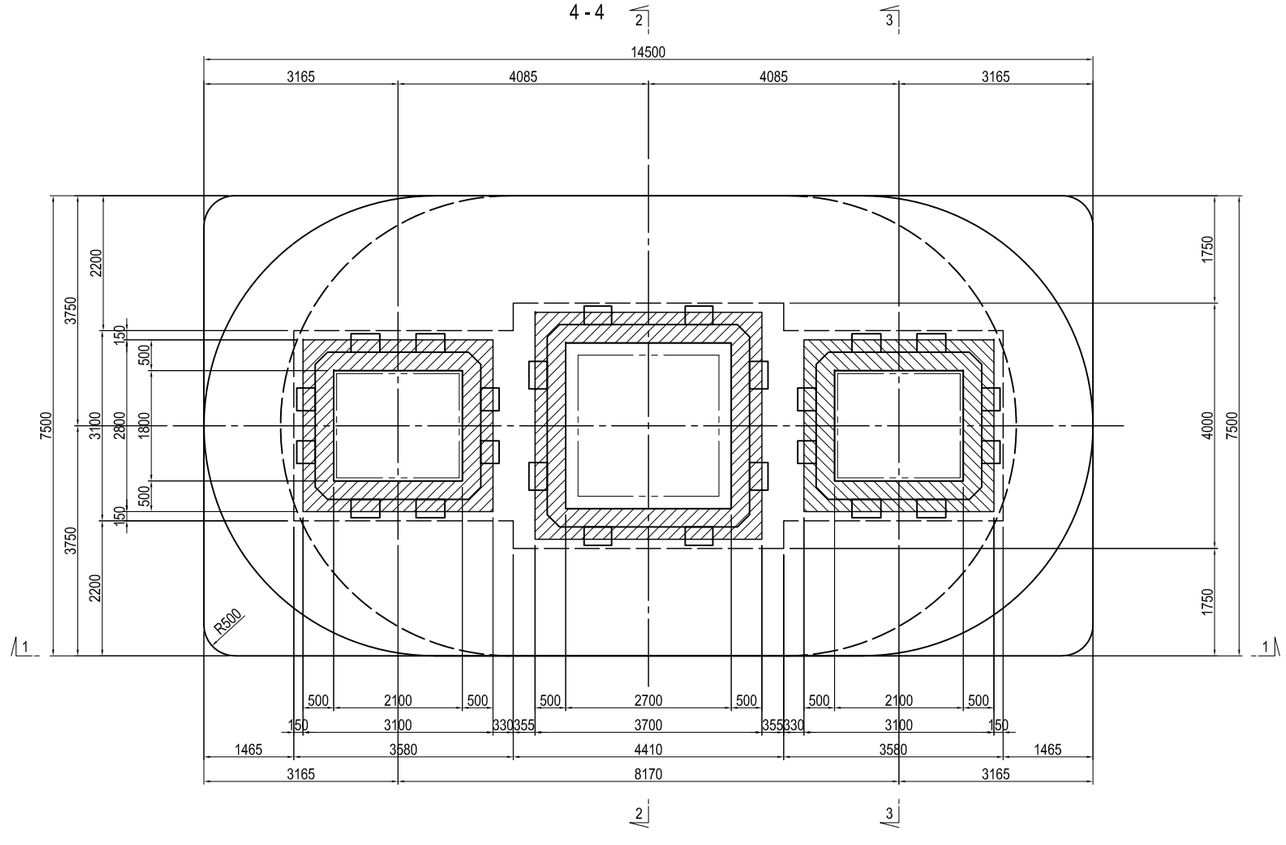
FRONT ELEVATION
1 - 1



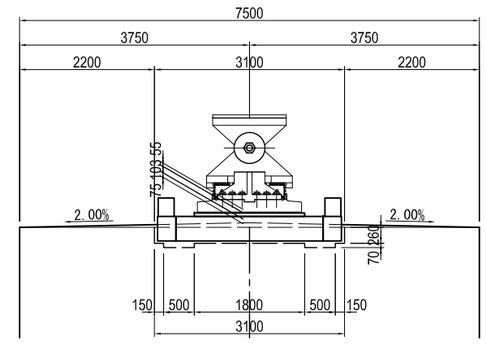
SIDE ELEVATION
2 - 2



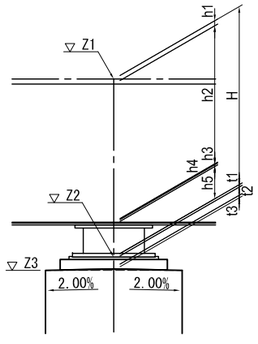
PLAN
4 - 4



3 - 3



		P11 PIER		
		SL2	CL	SR2
PROPOSED HEIGHT	Z1	17. 948	18. 030	17. 948
PAVEMENT	h1	0. 080	0. 080	0. 080
GIRDER	h2	2. 618	2. 700	2. 618
BOTTOM FLANGE	h3	0. 015	0. 015	0. 015
SOLE PLATE	h4	0. 052	0. 097	0. 052
BEARING	h5	1. 550	1. 550	1. 550
SUBTOTAL	H	4. 315	4. 442	4. 315
ELEVATION OF BEARING BOTTOM	Z2	13. 633	13. 588	13. 633
MORTAR	t1	0. 055	0. 065	0. 055
BEARING BASE	t2	0. 103	0. 048	0. 103
DRAINAGE INCLINE	t3	0. 075	0. 075	0. 075
ELEVATION OF PIER TOP	Z3	13. 400	13. 400	13. 400



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.		

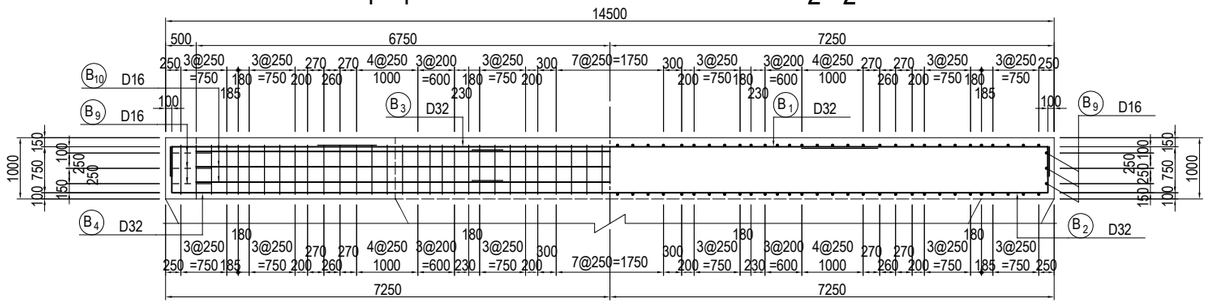
	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田智進	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017
APPROVED BY	Y. SANO	佐野 祐一	29. Nov.2017

DRAWING TITLE	PACKAGE
GENERAL ARRANGEMENT OF P11 PIER（2）	1
	DWG No.
	P1-CS-2102

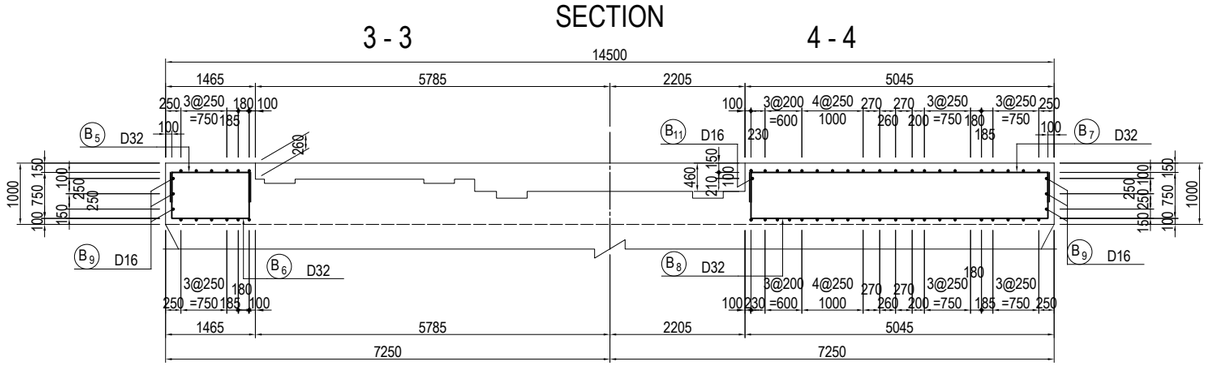
BAR ARRANGEMENT OF P11 PIER (1) S=1:100

BEAM

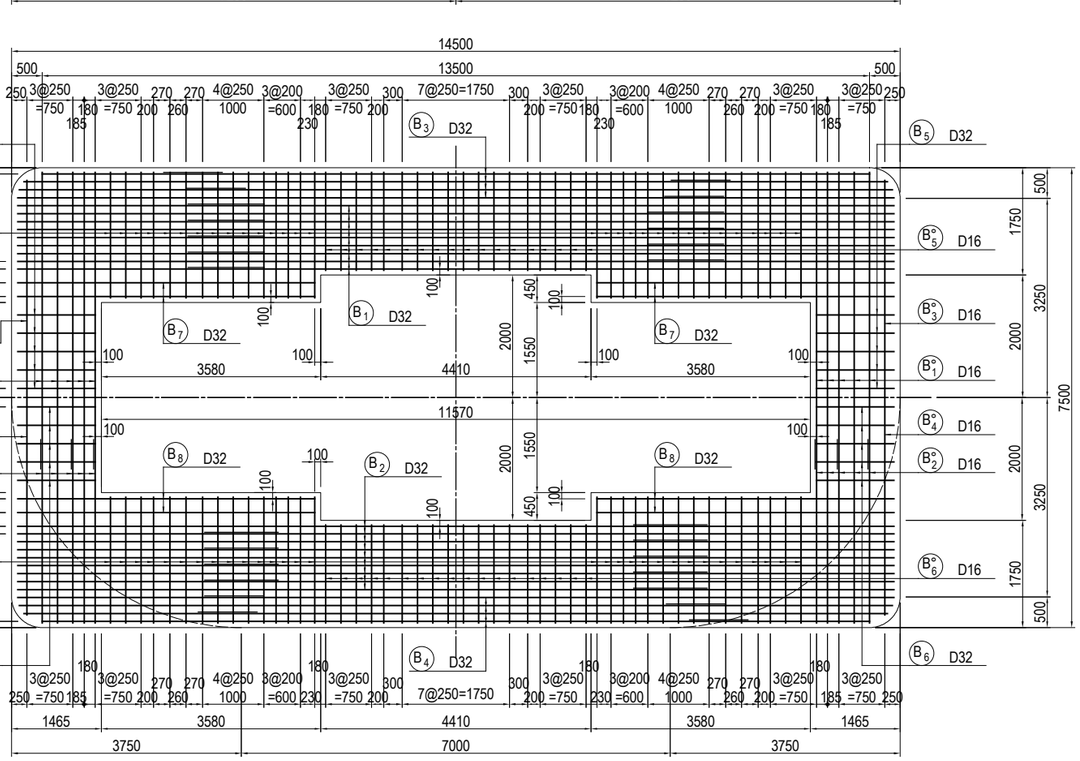
FRONT ELEVATION 1 - 1



SECTION 2 - 2



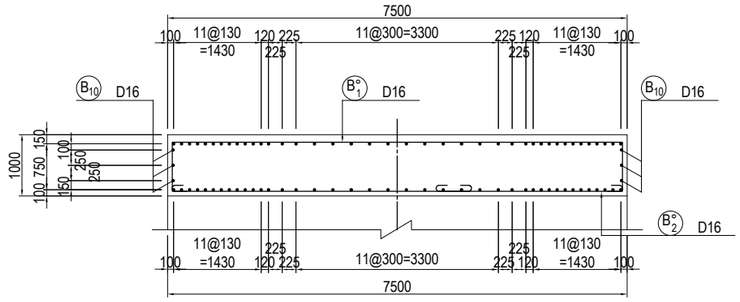
SECTION 3 - 3



PLAN 8 - 8

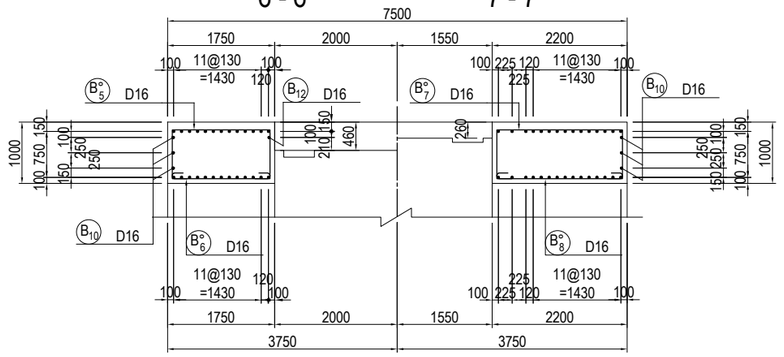
PLAN 9 - 9

SECTION 5 - 5

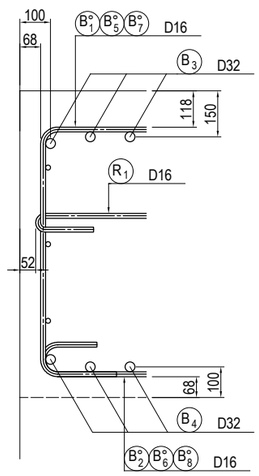


SECTION 6 - 6

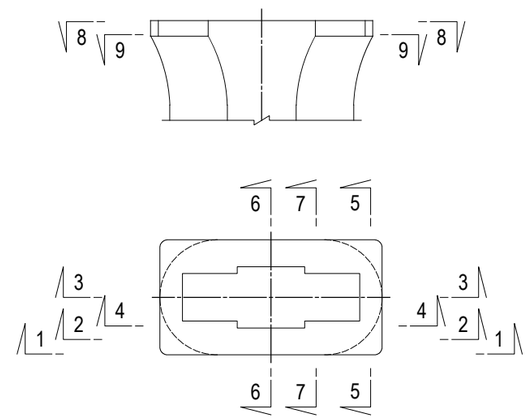
SECTION 7 - 7



DETAIL OF BEAM S=1:20



MARKING DIAGRAM



USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

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.		

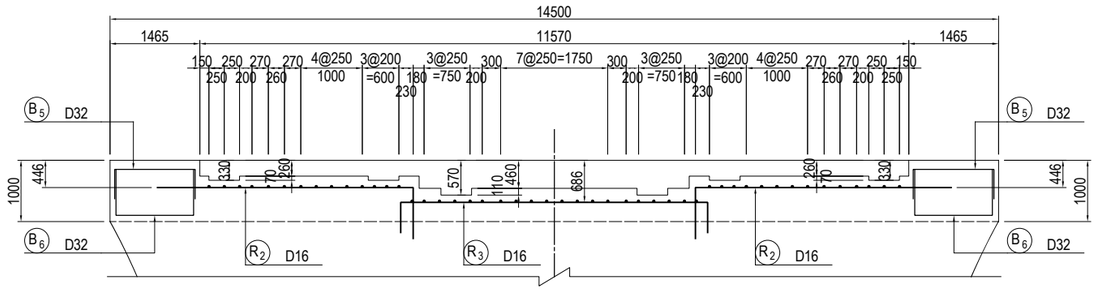
	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF P11 PIER (1)	1
	DWG No.
	P1-CS-2103

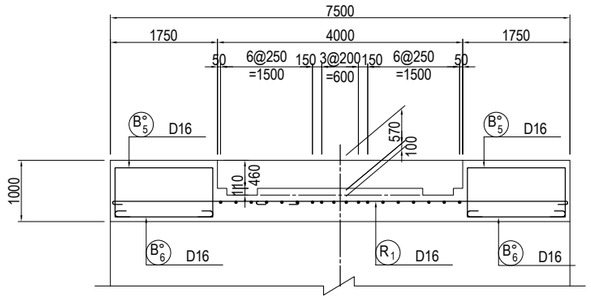
BAR ARRANGEMENT OF P11 PIER (2) S=1:100

BEAM

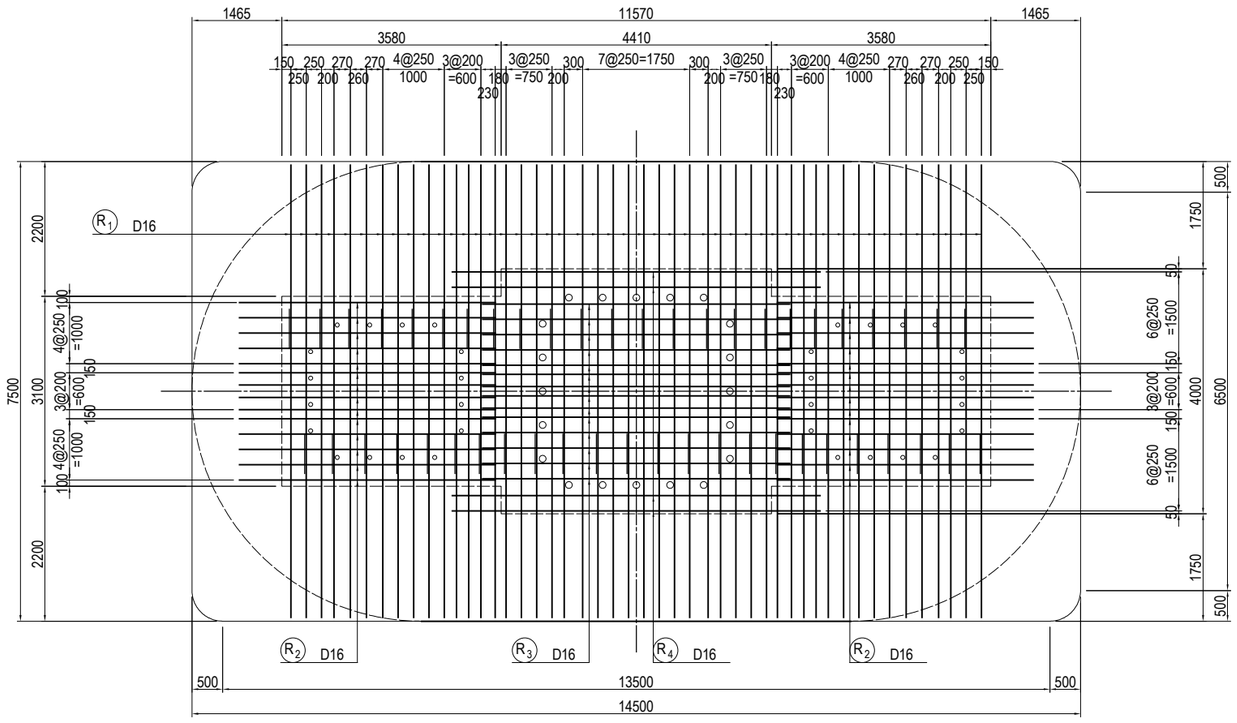
SECTION A - A



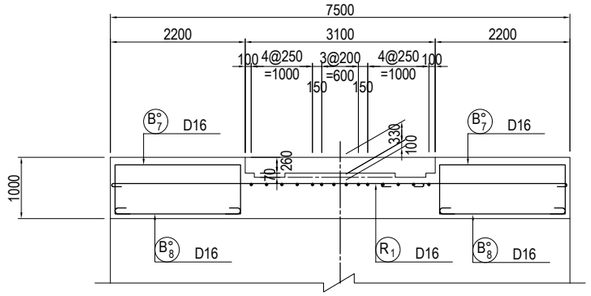
SECTION C - C

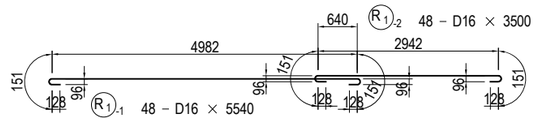


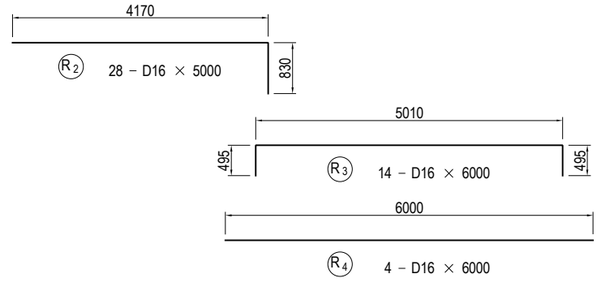
PLAN B - B



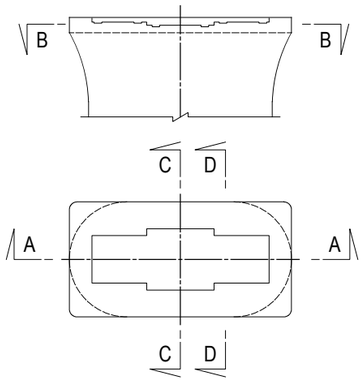
SECTION D - D







MARKING DIAGRAM



USE MATERIALS

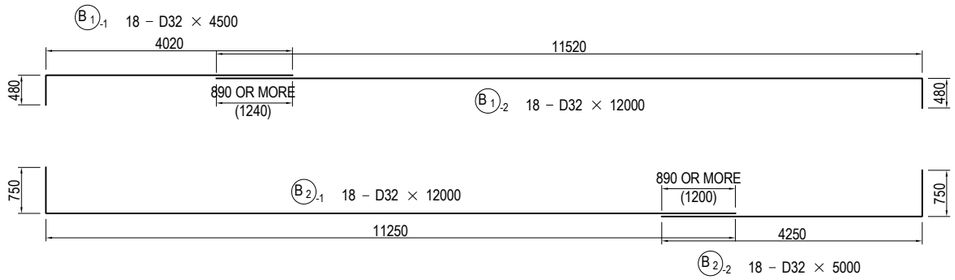
	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

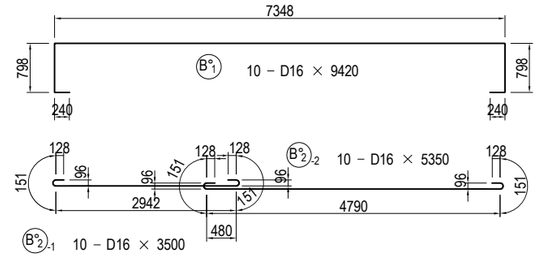
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

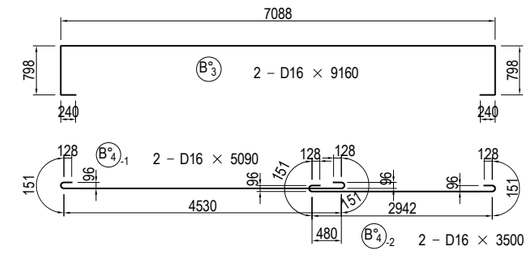
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 PIER (2)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2104

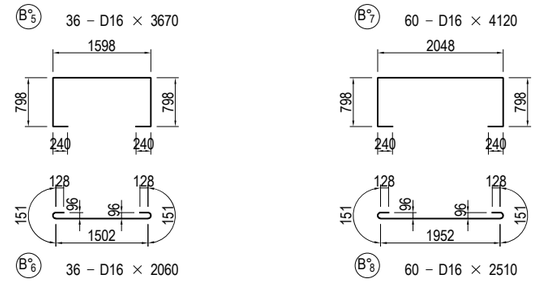
BAR ARRANGEMENT OF P11 PIER (3) S=1:100

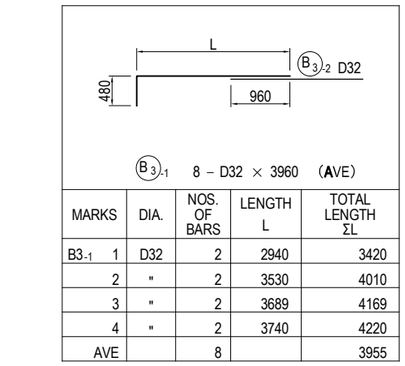
BEAM



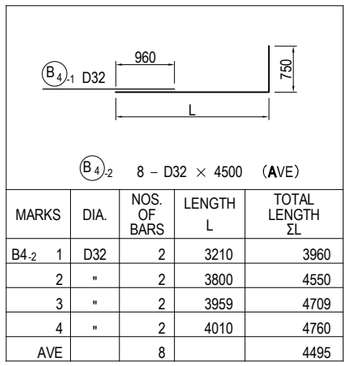




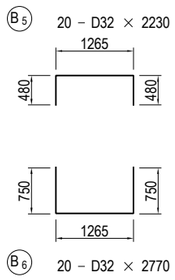


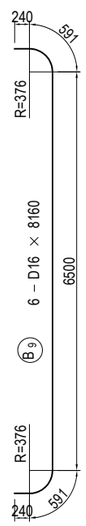


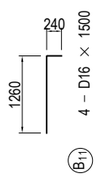
MARKS		DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
B3-1	1	D32	2	2940	3420
	2	"	2	3530	4010
	3	"	2	3689	4169
	4	"	2	3740	4220
AVE			8		3955

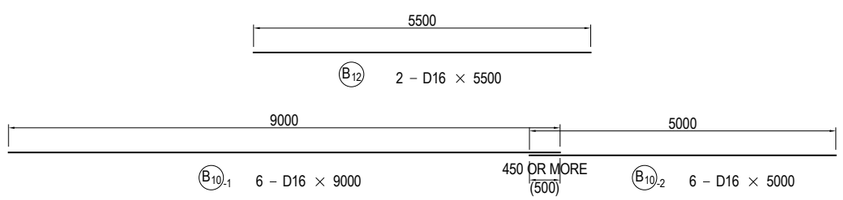


MARKS		DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
B4-2	1	D32	2	3210	3960
	2	"	2	3800	4550
	3	"	2	3959	4709
	4	"	2	4010	4760
AVE			8		4495









USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

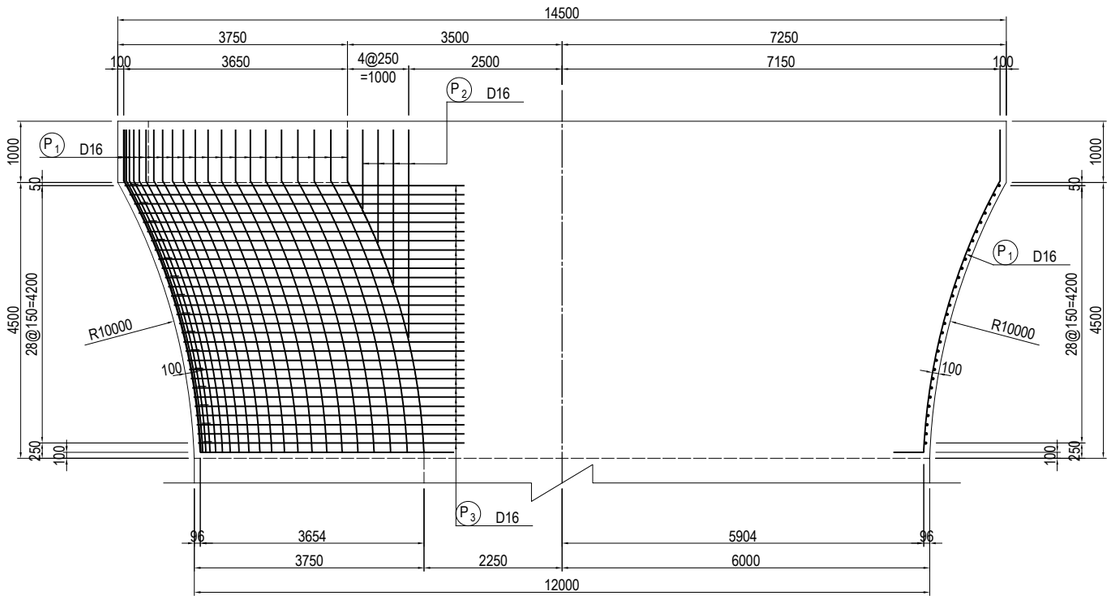
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 PIER (3)	1
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2105

BAR ARRANGEMENT OF P11 PIER (4) S=1:100

BEAM

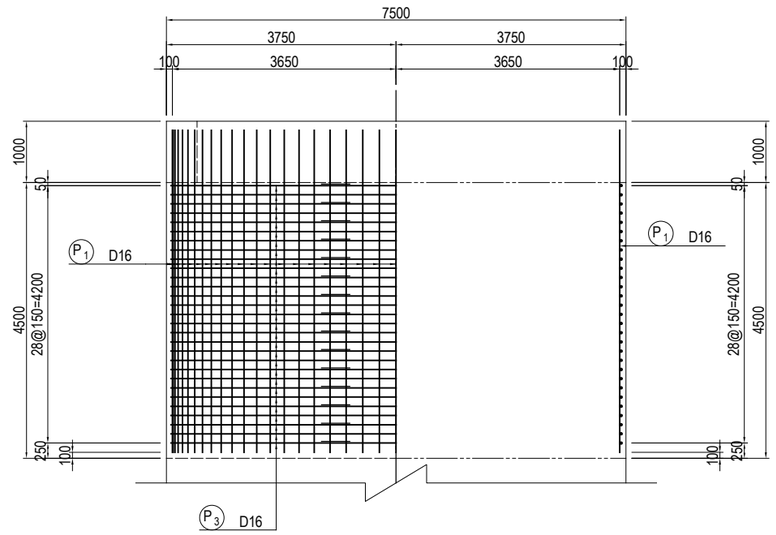
FRONT ELEVATION 1 - 1

SECTION 2 - 2



SIDE ELEVATION 3 - 3

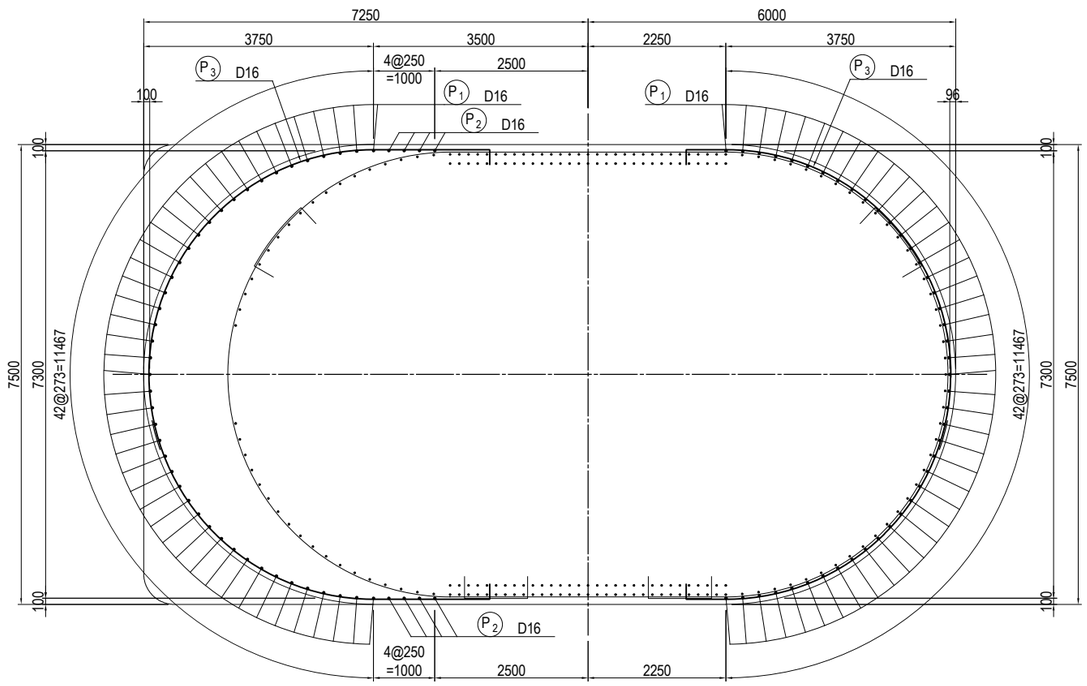
SECTION 4 - 4



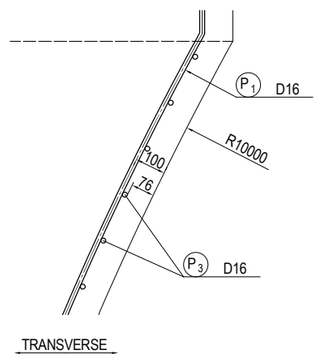
PLAN

5 - 5

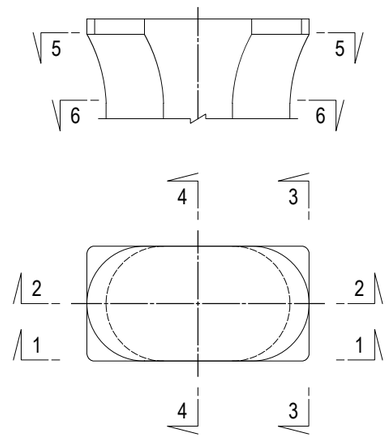
6 - 6



DETAIL OF WIDENED PART S=1:20



MARKING DIAGRAM



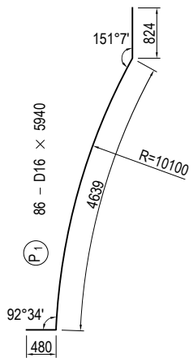
USE MATERIALS

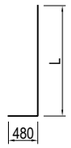
	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

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	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 PIER (4)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野裕一	29. Nov.2017		P1-CS-2106

BAR ARRANGEMENT OF P11 PIER (5) S=1:100

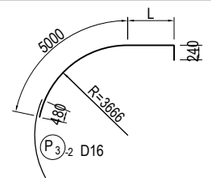
BEAM





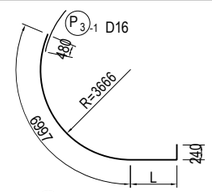
P2 16 – D16 × 2720 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
P2 1	D16	4	1271	1751
2	"	4	1826	2306
3	"	4	2494	2974
4	"	4	3371	3851
AVE		16		2721



P3-1 58 – D16 × 6340 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
P3-1 1	D16	2	1859	7099
2	"	2	1779	7019
3	"	2	1703	6943
4	"	2	1629	6869
5	"	2	1559	6799
6	"	2	1492	6732
7	"	2	1428	6668
8	"	2	1366	6606
9	"	2	1307	6547
10	"	2	1251	6491
11	"	2	1198	6438
12	"	2	1147	6387
13	"	2	1099	6339
14	"	2	1054	6294
15	"	2	1011	6251
16	"	2	970	6210
17	"	2	932	6172
18	"	2	897	6137
19	"	2	863	6103
20	"	2	833	6073
21	"	2	804	6044
22	"	2	778	6018
23	"	2	754	5994
24	"	2	733	5973
25	"	2	714	5954
26	"	2	697	5937
27	"	2	682	5922
28	"	2	670	5910
29	"	2	660	5900
AVE		58		6339



P3-2 58 – D16 × 8340 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
P3-2 1	D16	2	1859	9096
2	"	2	1779	9016
3	"	2	1703	8940
4	"	2	1629	8866
5	"	2	1559	8796
6	"	2	1492	8729
7	"	2	1428	8665
8	"	2	1366	8603
9	"	2	1307	8544
10	"	2	1251	8488
11	"	2	1198	8435
12	"	2	1147	8384
13	"	2	1099	8336
14	"	2	1054	8291
15	"	2	1011	8248
16	"	2	970	8207
17	"	2	932	8169
18	"	2	897	8134
19	"	2	863	8100
20	"	2	833	8070
21	"	2	804	8041
22	"	2	778	8015
23	"	2	754	7991
24	"	2	733	7970
25	"	2	714	7951
26	"	2	697	7934
27	"	2	682	7919
28	"	2	670	7907
29	"	2	660	7897
AVE		58		8336

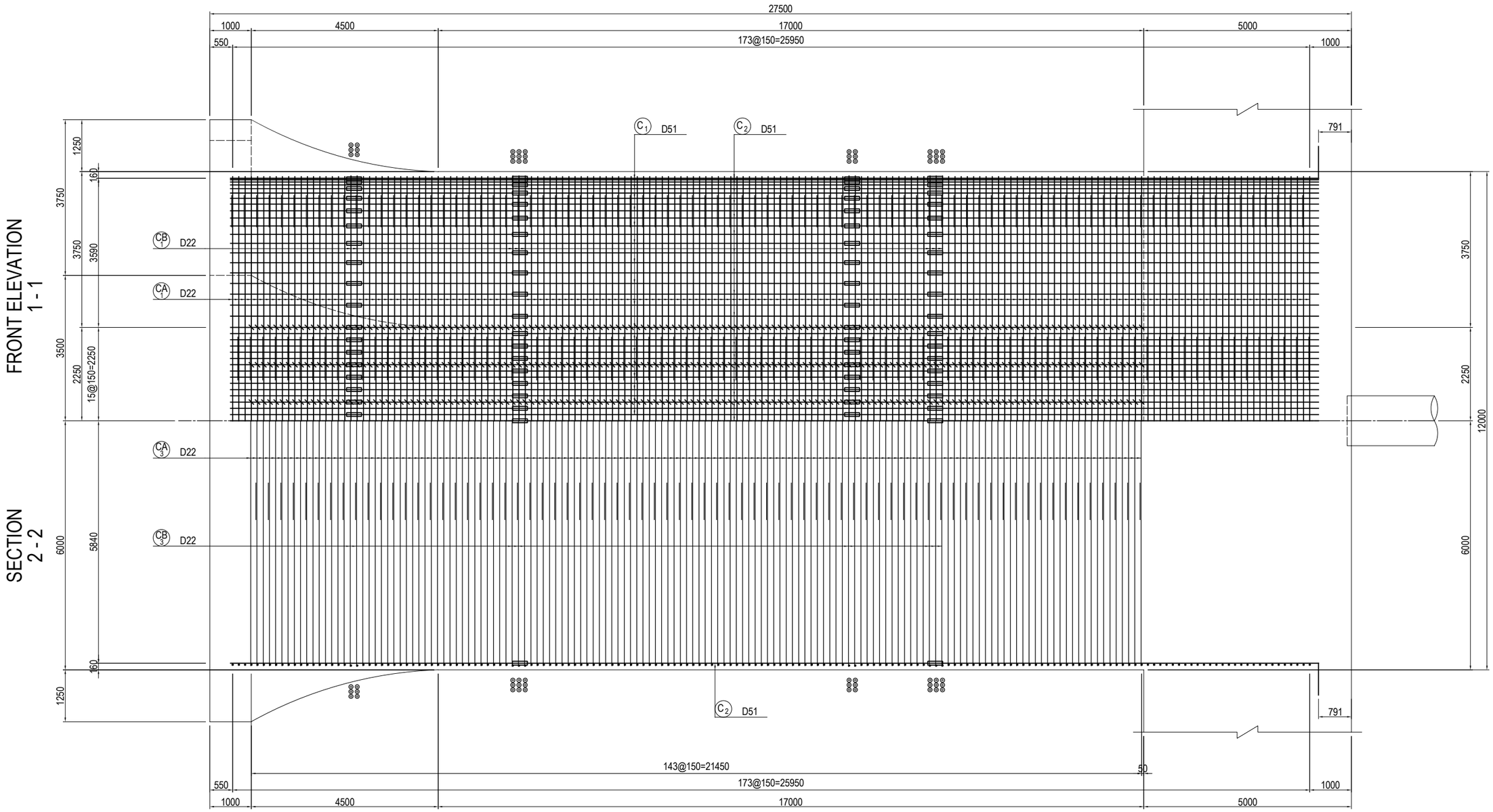
USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

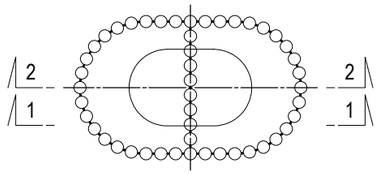
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
				NAME	SIGNATURE / DATE
				PREPARED BY	T.TOMODA 友田富雄 27. Nov.2017
				CHECKED BY	T. HAYAKAWA 早川知邦 28. Nov.2017
				APPROVED BY	Y. SANO 佐野祐一 29. Nov.2017
				DRAWING TITLE	BAR ARRANGEMENT OF P11 PIER (5)
				PACKAGE	1
				DWG No.	P1-CS-2107

BAR ARRANGEMENT OF P11 PIER (6) S=1:100

COLUMN



MARKING DIAGRAM



Notes) 1. ⊙⊙⊙ : This mark indicates hoop arranged in the location of mechanical joint.
2. —▭— : This mark indicates a mechanical joint.

USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm^2	SD345

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
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.

	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川和男	28. Nov.2017
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017

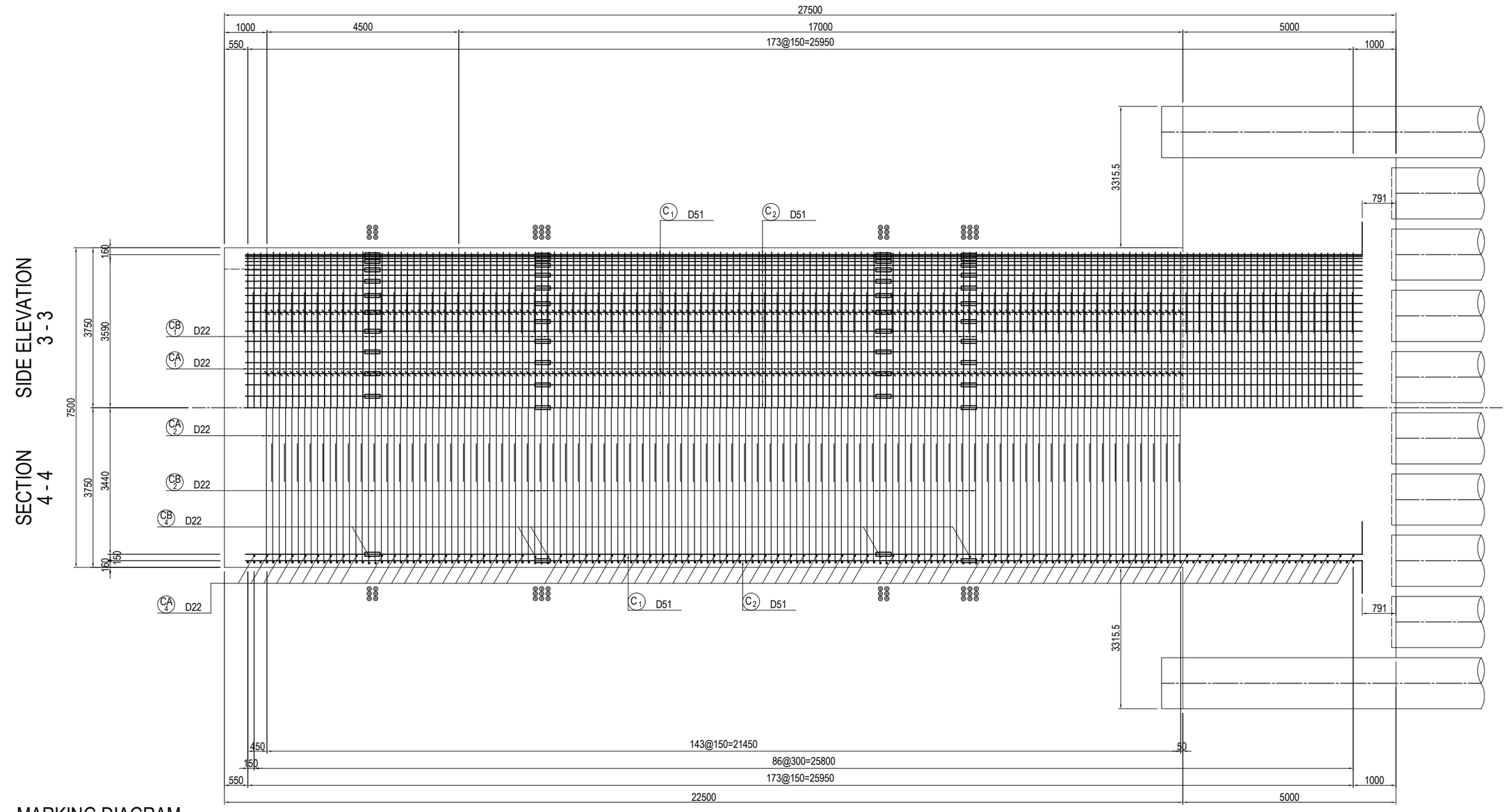
DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF P11 PIER (6)	1
	DWG No.
	P1-CS-2108

BAR ARRANGEMENT OF P11 PIER (7) S=1:100

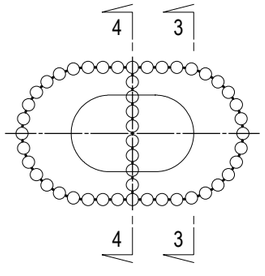
COLUMN

SIDE ELEVATION 3 - 3

SECTION 4 - 4



MARKING DIAGRAM



Notes) 1. ⊙⊙⊙ : This mark indicates hoop arranged in the location of mechanical joint.
2. —▭— : This mark indicates a mechanical joint.

USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

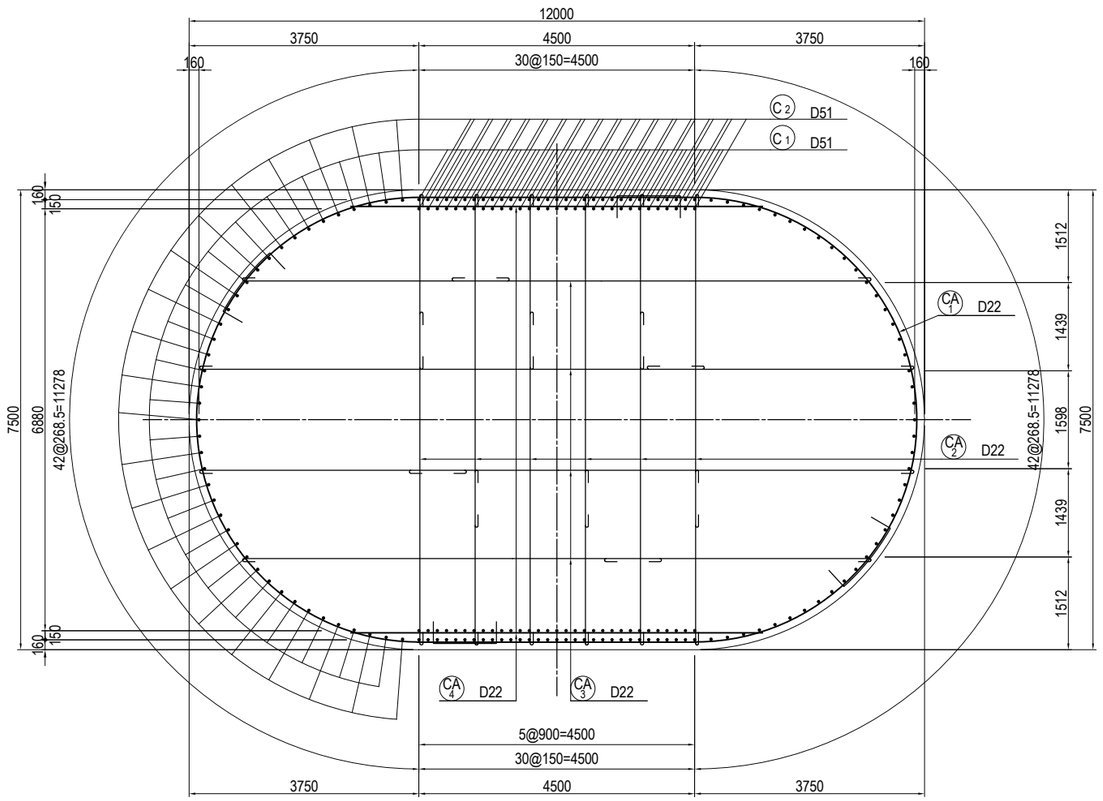
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 PIER (7)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2109

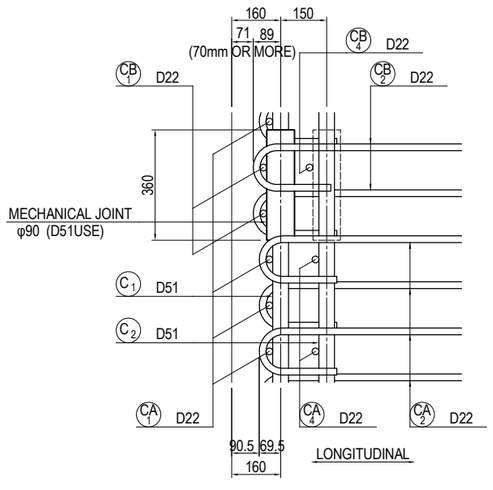
BAR ARRANGEMENT OF P11 PIER (8) S=1:100

COLUMN

PLAN
5 - 5

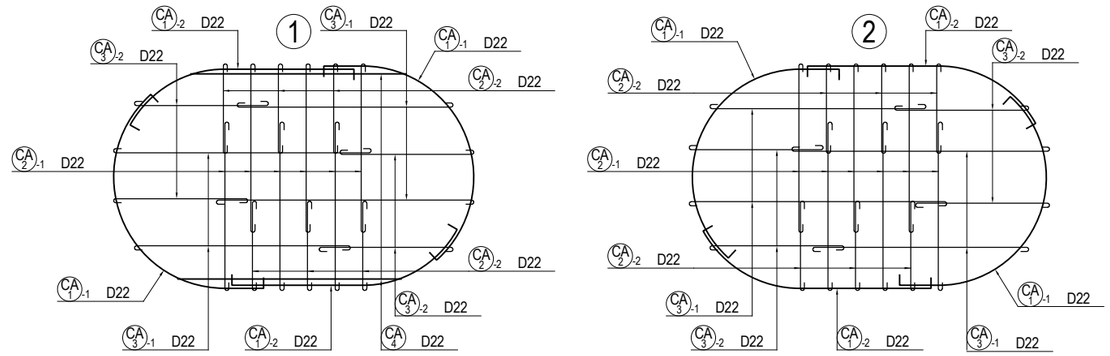


DETAIL OF COLUMN S=1:20



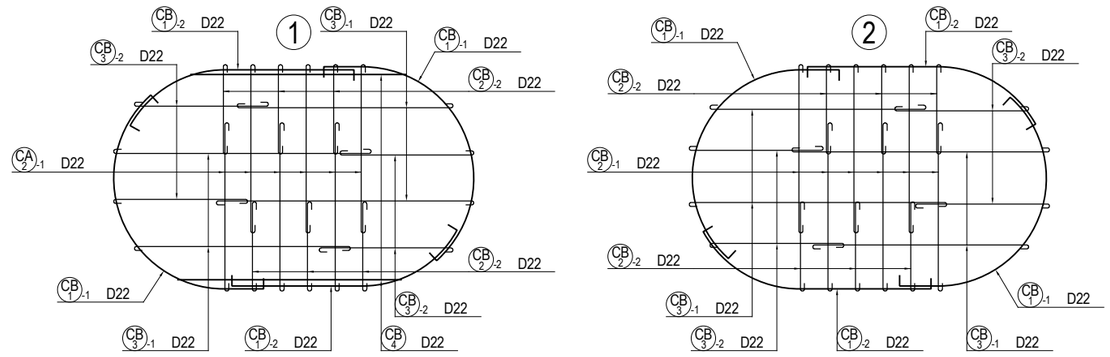
ASSEMBLY DRAWING OF HOOP
(c.t.c. 150)

【STANDARD PART】



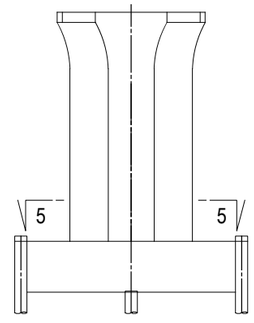
Note) CA4 : c.t.c. 300

【MECHANICAL JOINT PART】



Note) CB4 : c.t.c. 300

MARKING DIAGRAM



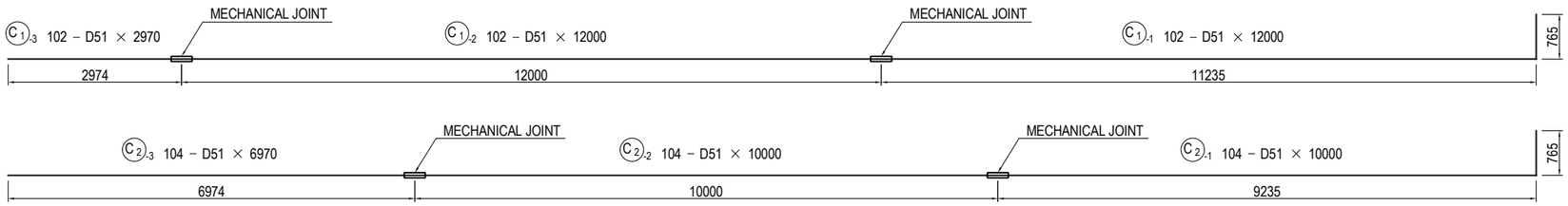
USE MATERIALS

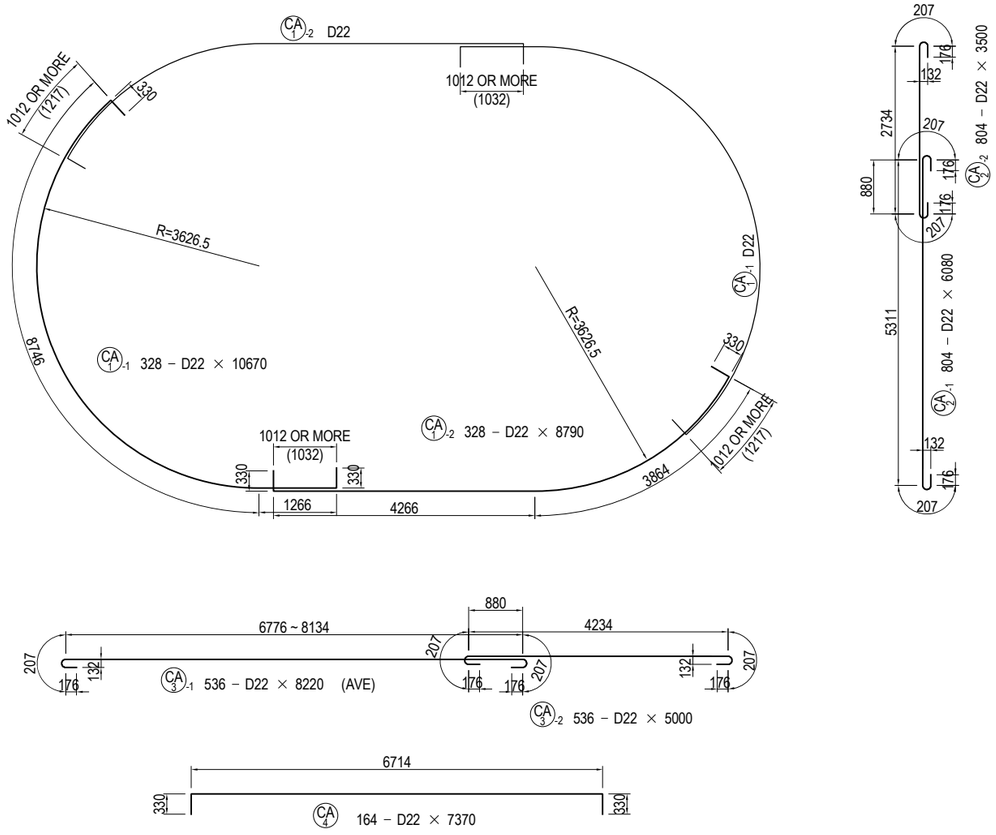
	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

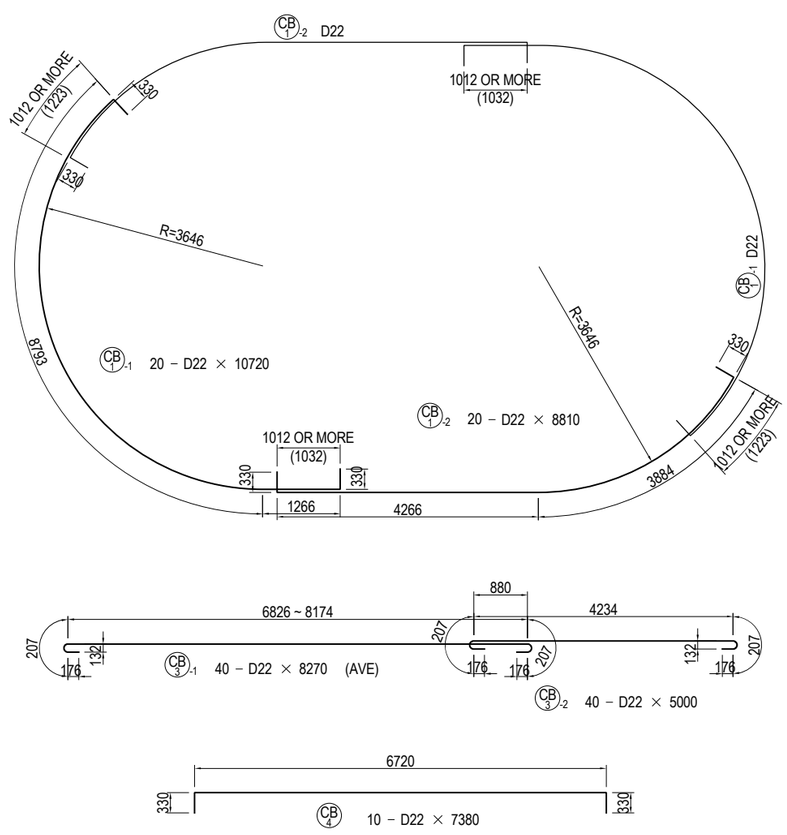
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 PIER (8)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2110

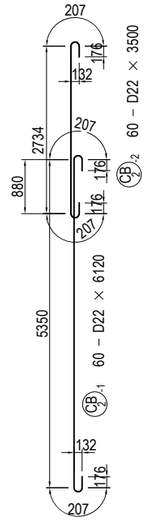
BAR ARRANGEMENT OF P11 PIER (9) S=1:100

COLUMN

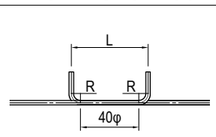








LAP LENGTH LIST OF HOOP



DIA.	R	LAP LENGTH (40φ)	L
D13	39	520	598
D16	48	640	736
D19	57	760	874
D22	66	880	1012
D25	75	1000	1150
D29	87	1160	1334
D32	96	1280	1472

Note) ⊣⊢ : This mark indicates a mechanical joint.

USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

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	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 PIER (9)	1
CHECKED BY	T. HAYAKAWA	早川和男	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017		P1-CS-2111

BAR ARRANGEMENT OF P11 PIER (10) NOT TO SCALE

BAR SCHEDULE

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
B 1-1	D32	4500	18	6.23	28.04	505	
1-2	"	12000	18	"	74.76	1346	
2-1	"	12000	18	"	74.76	1346	
2-2	"	5000	18	"	31.15	561	
3-1	"	3960	8	"	24.67	197	(AVE)
3-2	"	12000	8	"	74.76	598	
4-1	"	12000	8	"	74.76	598	
4-2	"	4500	8	"	28.04	224	(AVE)
5	"	2230	20	"	13.89	278	
6	"	2770	20	"	17.26	345	
7	"	5810	8	"	36.20	290	
8	"	6350	8	"	39.56	316	
9	D16	8160	6	1.56	12.73	76	
10-1	"	9000	6	"	14.04	84	
10-2	"	5000	6	"	7.80	47	"
11	"	1500	4	"	2.34	9	
12	"	5500	2	"	8.58	17	
					SUBTOTAL	6837 kg	
B° 1	D16	9420	10	1.56	14.70	147	
2-1	"	3500	10	"	5.46	55	
2-2	"	5350	10	"	8.35	84	"
3	"	9160	2	"	14.29	29	
4-1	"	5090	2	"	7.94	16	
4-2	"	3500	2	"	5.46	11	"
5	"	3670	36	"	5.73	206	
6	"	2060	36	"	3.21	116	
7	"	4120	60	"	6.43	386	
8	"	2510	60	"	3.92	235	
					SUBTOTAL	1285 kg	
R 1-1	D16	5540	48	1.56	8.64	415	
1-2	"	3500	48	"	5.46	262	"
2	"	5000	28	"	7.80	218	
3	"	6000	14	"	9.36	131	
4	"	6000	4	"	9.36	37	
					SUBTOTAL	1063 kg	
P 1	D16	5940	86	1.56	9.27	797	
2	"	2720	16	"	4.24	68	(AVE)
3-1	"	6340	58	"	9.89	574	(AVE)
3-2	"	8340	58	"	13.01	755	(AVE)
					SUBTOTAL	2194 kg	

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
C 1-1	D51	12000	102	15.9	190.80	19462	(102)
1-2	"	12000	102	"	190.80	19462	(102)
1-3	"	2970	102	"	47.22	4816	
2-1	"	10000	104	"	159.00	16536	(104)
2-2	"	10000	104	"	159.00	16536	(104)
2-3	"	6970	104	"	110.82	11525	
					SUBTOTAL	88337 kg	
CA 1-1	D22	10670	328	3.04	32.44	10640	
1-2	"	8790	328	"	26.72	8764	
2-1	"	6080	804	"	18.48	14858	
2-2	"	3500	804	"	10.64	8555	"
3-1	"	8220	536	"	24.99	13395	(AVE)
3-2	"	5000	536	"	15.20	8147	"
4	"	7370	164	"	22.40	3674	
					SUBTOTAL	68033 kg	
CB 1-1	D22	10720	20	3.04	32.59	652	
1-2	"	8810	20	"	26.78	536	
2-1	"	6120	60	"	18.60	1116	
2-2	"	3500	60	"	10.64	638	"
3-1	"	8270	40	"	25.14	1006	(AVE)
3-2	"	5000	40	"	15.20	608	"
4	"	7380	10	"	22.44	224	
					SUBTOTAL	4780 kg	

			(MECHANICAL JOINT)
	D51	88337 kg	(412)
	D32	6604 "	
	D22	72813 "	
	D16	4775 "	
	TOTAL	172529 kg	(412)

USE MATERIALS

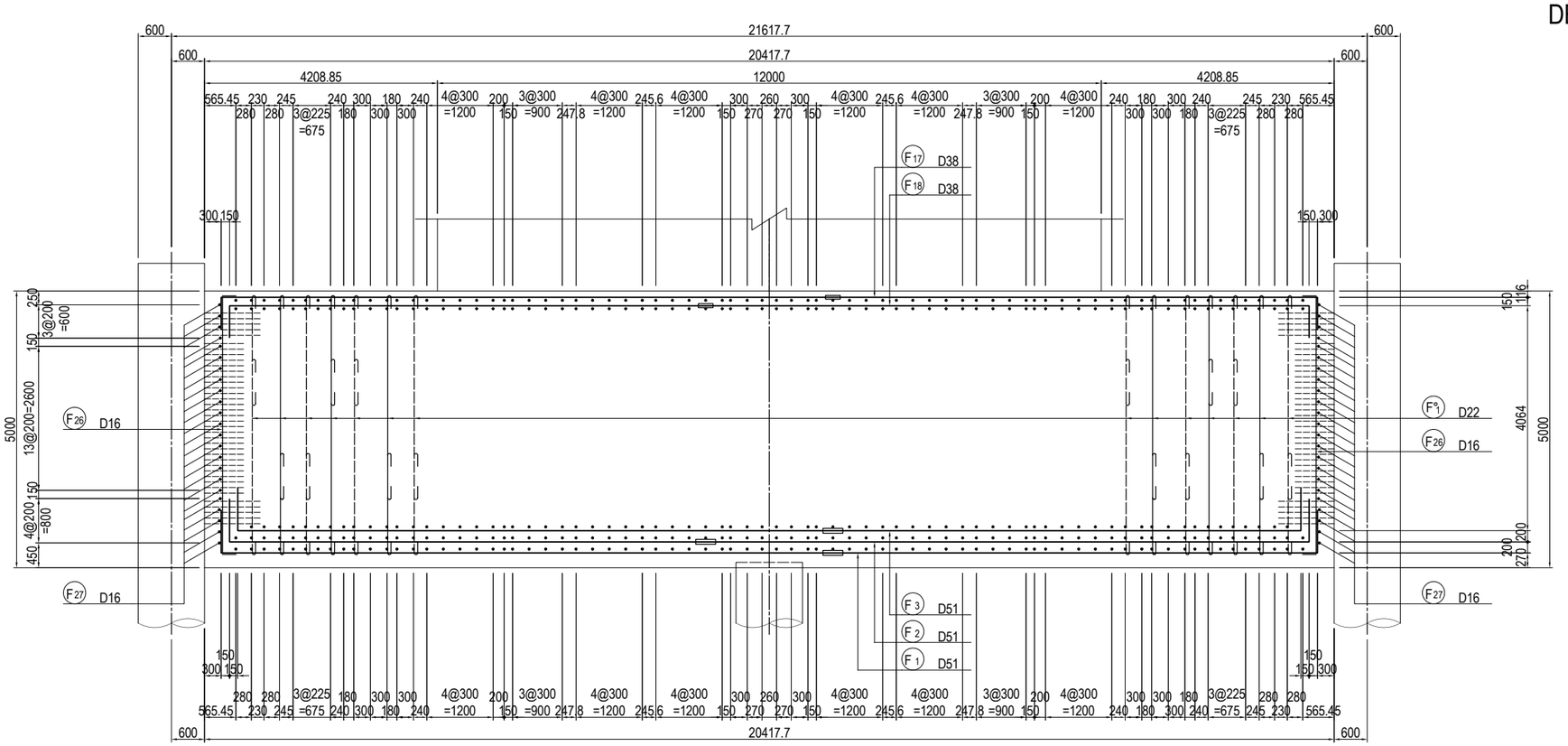
	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm^2	SD345

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	T.TOMODA	友田智雄	27. Nov.2017	BAR ARRANGEMENT OF P11 PIER (10)	1
CHECKED BY	T. HAYAKAWA	早川知矛	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2112

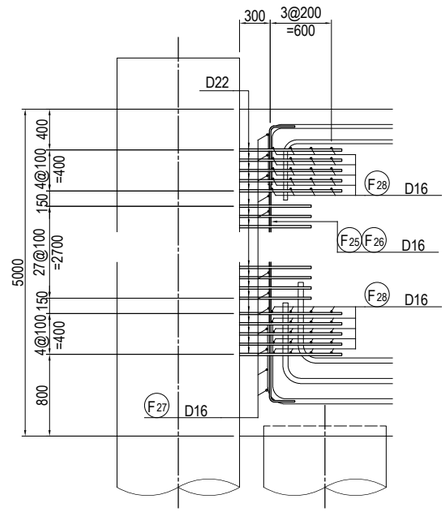
BAR ARRANGEMENT OF P11 FOOTING (1) S=1:100

SECTION
1 - 1

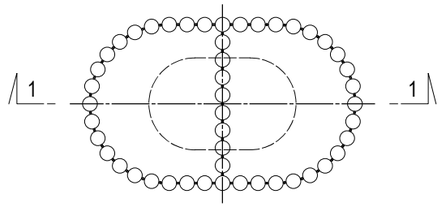


DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING

S=1:60



MARKING DIAGRAM



Note) —⊟— : MECHANICAL JOINT

USE MATERIALS

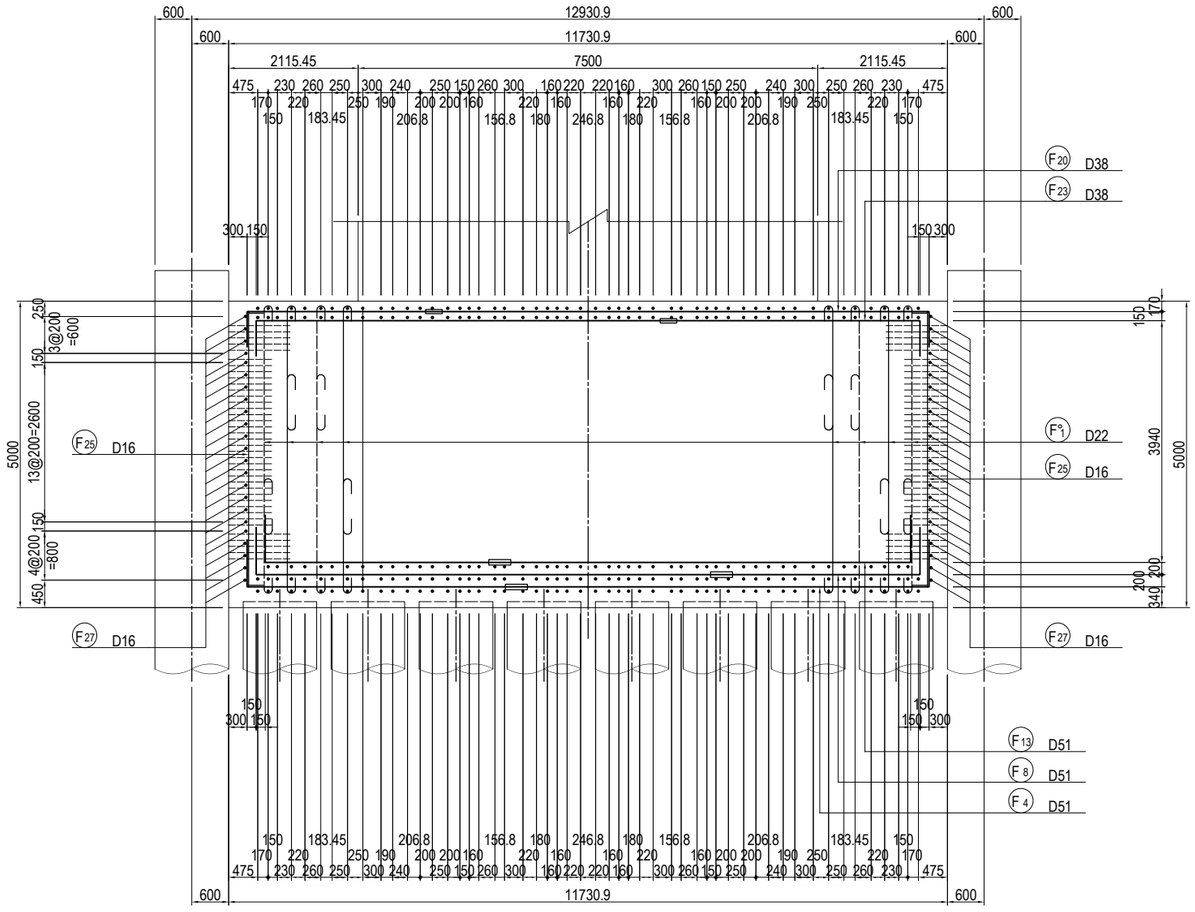
	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
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.

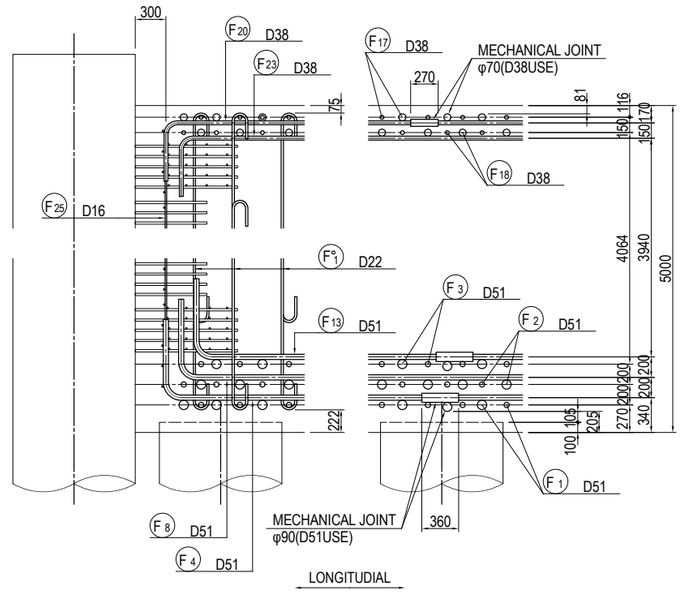
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (1)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2113

BAR ARRANGEMENT OF P11 FOOTING (2) S=1:100

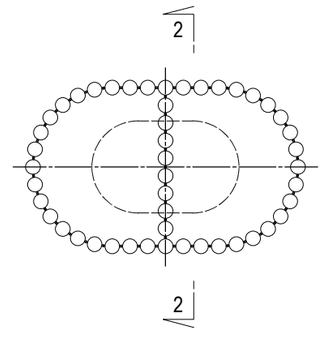
SECTION 2 - 2



DETAIL OF PILE CAP S=1:60



MARKING DIAGRAM



USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

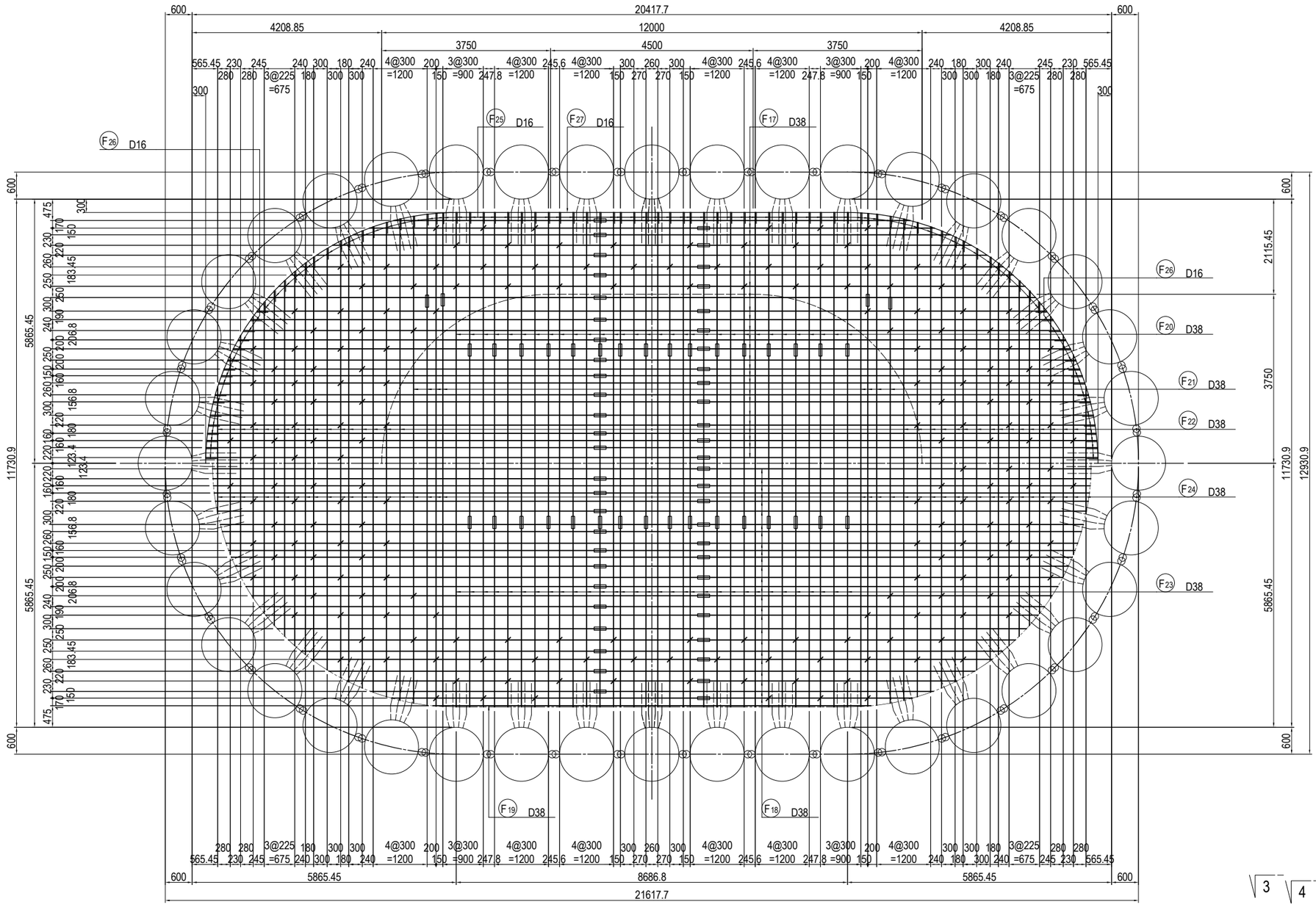
Note) —⊟— : MECHANICAL JOINT

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: T.TOMODA 友田富雄 27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (2) / 1
				CHECKED BY: T. HAYAKAWA 早川知邦 28. Nov.2017	DWG No.
				APPROVED BY: Y. SANO 佐野雄一 29. Nov.2017	P1-CS-2114

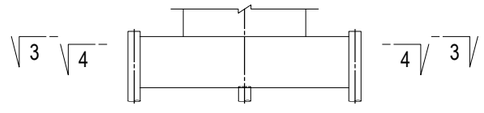
BAR ARRANGEMENT OF P11 FOOTING (3) S=1:100

PLAN 3 - 3

PLAN 4 - 4



MARKING DIAGRAM



Note) —⊟— : MECHANICAL JOINT

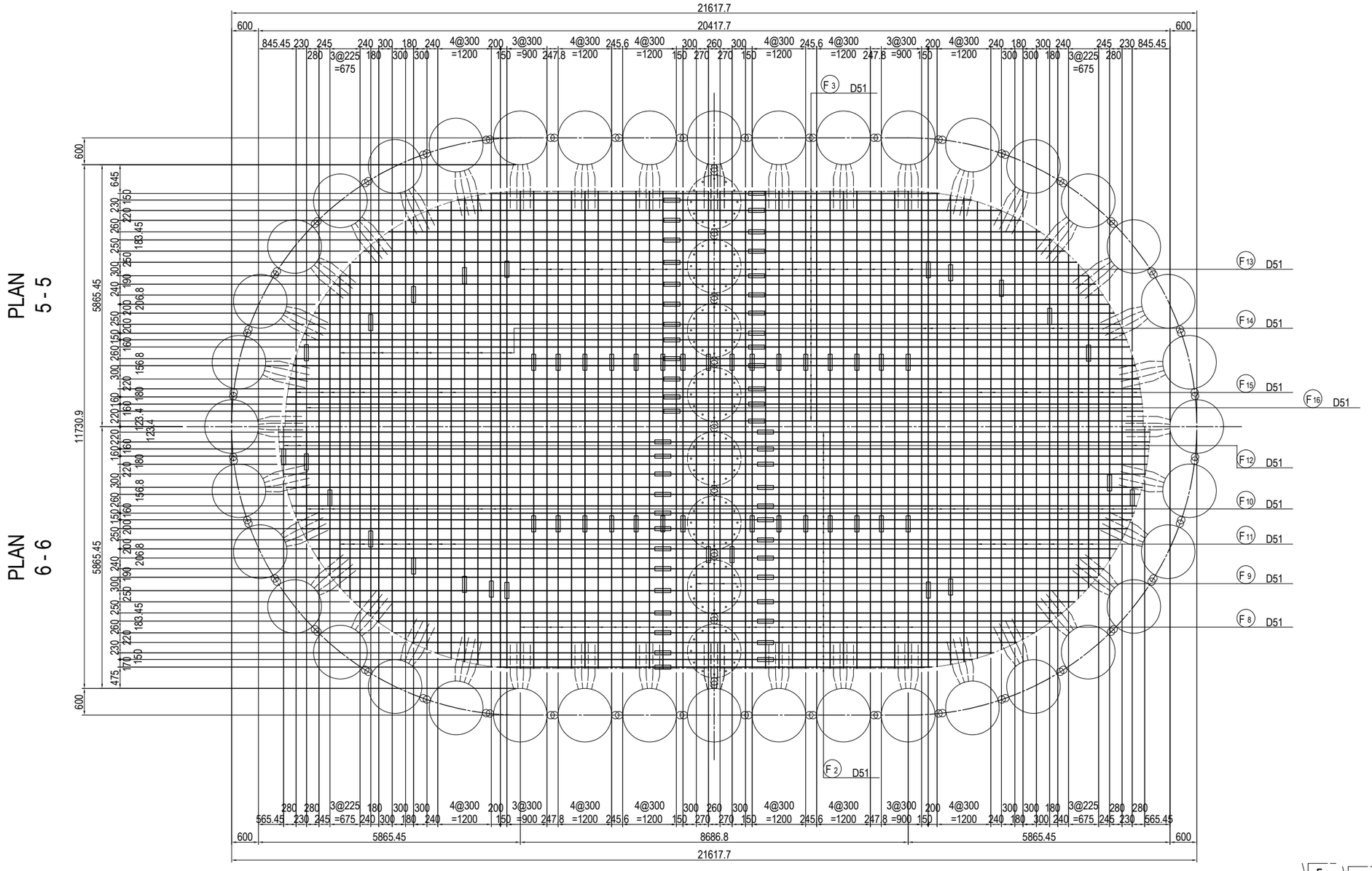
USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
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.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (3)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野裕一	29. Nov.2017		P1-CS-2115

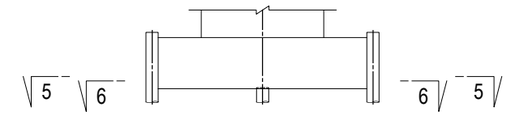
BAR ARRANGEMENT OF P11 FOOTING (4) S=1:100



PLAN 5 - 5

PLAN 6 - 6

MARKING DIAGRAM



USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

Note) ⟷ : MECHANICAL JOINT

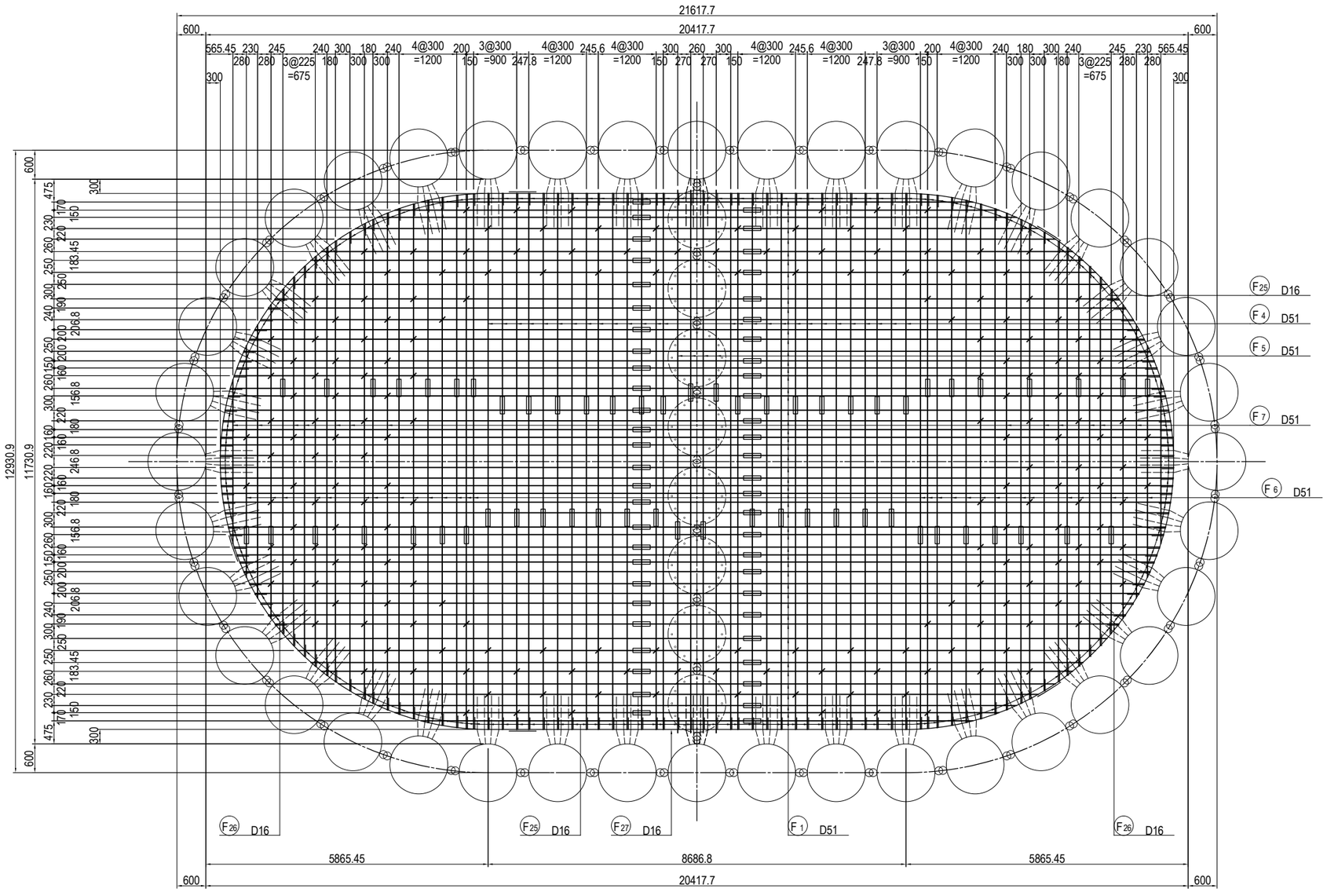
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (4)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2116

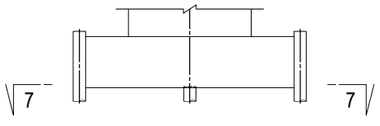
BAR ARRANGEMENT OF P11 FOOTING (5) S=1:100

PLAN

7 - 7



MARKING DIAGRAM



USE MATERIALS

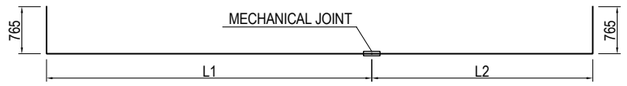
	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

Note) —⊟— : MECHANICAL JOINT

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
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.		

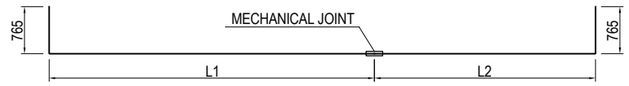
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (5)	1
CHECKED BY	T. HAYAKAWA	早川知矛	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2117

BAR ARRANGEMENT OF P11 FOOTING (6) S=1:100



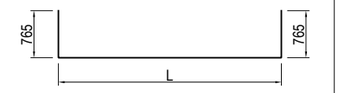
(F1)-1 52 – D51 × 10680 (AVE)　　(F1)-2 52 – D51 × 8380 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F1 -1 1	D51	2	11057	11822	F1 -2 1	D51	2	8757	9522
2	"	2	11048	11813	2	"	2	8748	9513
3	"	2	11036	11801	3	"	2	8736	9501
4	"	2	11019	11784	4	"	2	8719	9484
5	"	2	10995	11760	5	"	2	8695	9460
6	"	2	10956	11721	6	"	2	8656	9421
7	"	2	10889	11654	7	"	2	8589	9354
8	"	2	10847	11612	8	"	2	8547	9312
9	"	2	10766	11531	9	"	2	8466	9231
10	"	2	10710	11475	10	"	2	8410	9175
11	"	2	10651	11416	11	"	2	8351	9116
12	"	2	10566	11331	12	"	2	8266	9031
13	"	2	10445	11210	13	"	2	8145	8910
14	"	2	10338	11103	14	"	2	8038	8803
15	"	2	10215	10980	15	"	2	7915	8680
16	"	2	10056	10821	16	"	2	7756	8521
17	"	2	9917	10682	17	"	2	7617	8382
18	"	2	9671	10436	18	"	2	7371	8136
19	"	2	9437	10202	19	"	2	7137	7902
20	"	2	9171	9936	20	"	2	6871	7636
21	"	2	8952	9717	21	"	2	6652	7417
22	"	2	8596	9361	22	"	2	6296	7061
23	"	2	8240	9005	23	"	2	5940	6705
24	"	2	7788	8553	24	"	2	5488	6253
25	"	2	7422	8187	25	"	2	5122	5887
26	"	2	6878	7643	26	"	2	4578	5343
AVE		52		10675	AVE		52		8375



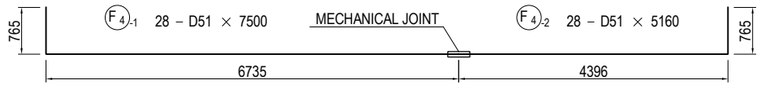
(F6)-1 28 – D51 × 7010 (AVE)　　(F6)-2 28 – D51 × 3950 (AVE)

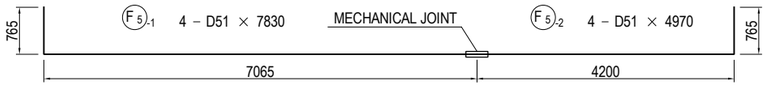
MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F6 -1 1	D51	2	7087	7852	F6 -2 1	D51	2	4027	4792
2	"	2	7077	7842	2	"	2	4017	4782
3	"	2	7057	7822	3	"	2	3997	4762
4	"	2	7014	7779	4	"	2	3954	4719
5	"	2	6953	7718	5	"	2	3893	4658
6	"	2	6875	7640	6	"	2	3815	4580
7	"	2	6779	7544	7	"	2	3719	4484
8	"	2	6556	7321	8	"	2	3496	4261
9	"	2	6467	7232	9	"	2	3407	4172
10	"	2	5974	6739	10	"	2	2914	3679
11	"	2	5783	6548	11	"	2	2723	3488
12	"	2	5105	5870	12	"	2	2045	2810
13	"	2	4791	5556	13	"	2	1731	2496
14	"	2	3933	4698	14	"	2	873	1638
AVE		28		7012	AVE		28		3952



(F7) 14 – D51 × 9220 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F7 1	D51	2	10316	11846
2	"	2	9537	11067
3	"	2	9149	10679
4	"	2	8104	9634
5	"	2	7656	9186
6	"	2	5667	7197
7	"	2	3397	4927
AVE		14		9219



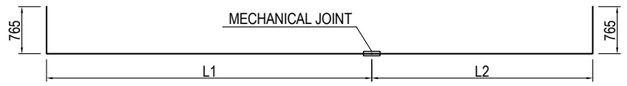


USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

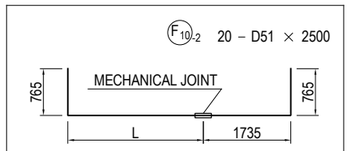
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (6)	1
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2118

BAR ARRANGEMENT OF P11 FOOTING (7) S=1:100



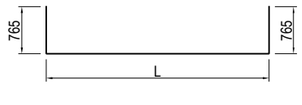
(F2)-1 52 – D51 × 10450 (AVE)　　(F2)-2 52 – D51 × 8150 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F2 -1 1	D51	2	10907	11672	F2 -2 1	D51	2	8607	9372
2	〃	2	10898	11663	2	〃	2	8598	9363
3	〃	2	10885	11650	3	〃	2	8585	9350
4	〃	2	10868	11633	4	〃	2	8568	9333
5	〃	2	10843	11608	5	〃	2	8543	9308
6	〃	2	10803	11568	6	〃	2	8503	9268
7	〃	2	10734	11499	7	〃	2	8434	9199
8	〃	2	10691	11456	8	〃	2	8391	9156
9	〃	2	10608	11373	9	〃	2	8308	9073
10	〃	2	10549	11314	10	〃	2	8249	9014
11	〃	2	10489	11254	11	〃	2	8189	8954
12	〃	2	10401	11166	12	〃	2	8101	8866
13	〃	2	10276	11041	13	〃	2	7976	8741
14	〃	2	10164	10929	14	〃	2	7864	8629
15	〃	2	10037	10802	15	〃	2	7737	8502
16	〃	2	9872	10637	16	〃	2	7572	8337
17	〃	2	9727	10492	17	〃	2	7427	8192
18	〃	2	9469	10234	18	〃	2	7169	7934
19	〃	2	9223	9988	19	〃	2	6923	7688
20	〃	2	8940	9705	20	〃	2	6640	7405
21	〃	2	8705	9470	21	〃	2	6405	7170
22	〃	2	8318	9083	22	〃	2	6018	6783
23	〃	2	7922	8687	23	〃	2	5622	6387
24	〃	2	7395	8160	24	〃	2	5095	5860
25	〃	2	6934	7699	25	〃	2	4634	5399
26	〃	2	6013	6778	26	〃	2	3713	4478
AVE		52		10445	AVE		52		8145



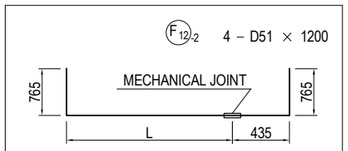
(F10)-1 20 – D51 × 7980 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F10 -1 1	D51	2	9079	9844
2	〃	2	9058	9823
3	〃	2	9018	9783
4	〃	2	8928	9693
5	〃	2	8803	9568
6	〃	2	7984	8749
7	〃	2	6775	7540
8	〃	2	4939	5704
9	〃	2	4261	5026
10	〃	2	3318	4083
AVE		20		7981



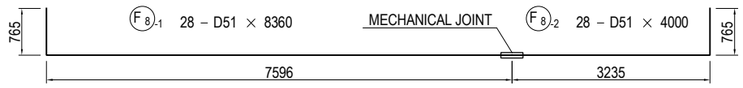
(F11) 18 – D51 × 10540 (AVE)

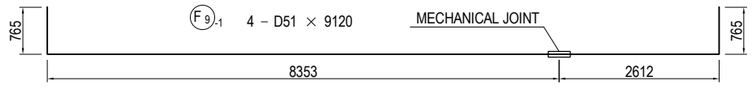
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F11 1	D51	2	10378	11908
2	〃	2	10179	11709
3	〃	2	9992	11522
4	〃	2	9534	11064
5	〃	2	9185	10715
6	〃	2	8781	10311
7	〃	2	8109	9639
8	〃	2	7687	9217
9	〃	2	7213	8743
AVE		18		10536



(F12)-1 4 – D51 × 3470 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F12 -1 1	D51	2	3628	4393
2	〃	2	1789	2554
AVE		4		3474





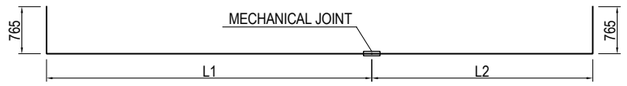
(F9)-2 4 – D51 × 3380

USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

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	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (7)	1
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2119

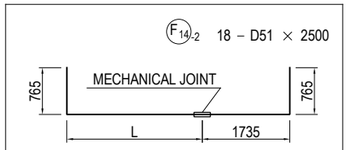
BAR ARRANGEMENT OF P11 FOOTING (8) S=1:100



(F3)-1 50 – D51 × 10170 (AVE)

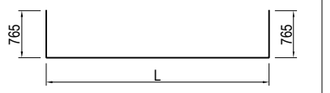
(F3)-2 50 – D51 × 8270 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F3 -1 1	D51	2	10557	11322	F3 -2 1	D51	2	8657	9422
2	"	2	10548	11313	2	"	2	8648	9413
3	"	2	10535	11300	3	"	2	8635	9400
4	"	2	10517	11282	4	"	2	8617	9382
5	"	2	10491	11256	5	"	2	8591	9356
6	"	2	10450	11215	6	"	2	8550	9315
7	"	2	10379	11144	7	"	2	8479	9244
8	"	2	10335	11100	8	"	2	8435	9200
9	"	2	10249	11014	9	"	2	8349	9114
10	"	2	10188	10953	10	"	2	8288	9053
11	"	2	10126	10891	11	"	2	8226	8991
12	"	2	10035	10800	12	"	2	8135	8900
13	"	2	9906	10671	13	"	2	8006	8771
14	"	2	9790	10555	14	"	2	7890	8655
15	"	2	9657	10422	15	"	2	7757	8522
16	"	2	9485	10250	16	"	2	7585	8350
17	"	2	9333	10098	17	"	2	7433	8198
18	"	2	9062	9827	18	"	2	7162	7927
19	"	2	8801	9566	19	"	2	6901	7666
20	"	2	8499	9264	20	"	2	6599	7364
21	"	2	8245	9010	21	"	2	6345	7110
22	"	2	7819	8584	22	"	2	5919	6684
23	"	2	7366	8131	23	"	2	5466	6231
24	"	2	6713	7478	24	"	2	4813	5578
25	"	2	5980	6745	25	"	2	4080	4845
AVE		50		10168	AVE		50		8268



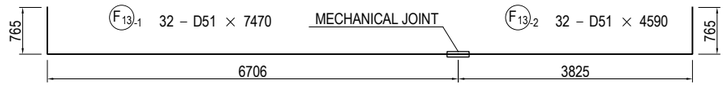
(F14)-1 18 – D51 × 8360 (AVE)

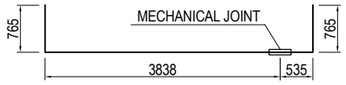
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F14 -1 1	D51	2	8779	9544
2	"	2	8757	9522
3	"	2	8623	9388
4	"	2	8495	9260
5	"	2	7931	8696
6	"	2	7649	8414
7	"	2	6674	7439
8	"	2	6390	7155
9	"	2	5019	5784
AVE		18		8356



(F15) 20 – D51 × 9350 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F15 1	D51	2	10450	11980
2	"	2	10064	11594
3	"	2	9860	11390
4	"	2	9191	10721
5	"	2	8829	10359
6	"	2	7704	9234
7	"	2	7258	8788
8	"	2	6176	7706
9	"	2	5435	6965
10	"	2	3178	4708
AVE		20		9345





(F16)-1 2 – D51 × 4600 (F16)-2 2 – D51 × 1300

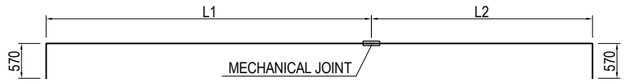
USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
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.

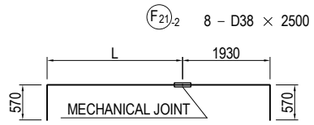
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (8)	1
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2120

BAR ARRANGEMENT OF P11 FOOTING (9) S=1:100



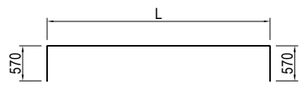
F17-1 52 – D38 × 10480 (AVE)　　F17-2 52 – D38 × 8180 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F17-1 1	D38	2	11057	11627	F17-2 1	D38	2	8757	9327
2	〃	2	11048	11618	2	〃	2	8748	9318
3	〃	2	11036	11606	3	〃	2	8736	9306
4	〃	2	11019	11589	4	〃	2	8719	9289
5	〃	2	10995	11565	5	〃	2	8695	9265
6	〃	2	10956	11526	6	〃	2	8656	9226
7	〃	2	10889	11459	7	〃	2	8589	9159
8	〃	2	10847	11417	8	〃	2	8547	9117
9	〃	2	10766	11336	9	〃	2	8466	9036
10	〃	2	10710	11280	10	〃	2	8410	8980
11	〃	2	10651	11221	11	〃	2	8351	8921
12	〃	2	10566	11136	12	〃	2	8266	8836
13	〃	2	10445	11015	13	〃	2	8145	8715
14	〃	2	10338	10908	14	〃	2	8038	8608
15	〃	2	10215	10785	15	〃	2	7915	8485
16	〃	2	10056	10626	16	〃	2	7756	8326
17	〃	2	9917	10487	17	〃	2	7617	8187
18	〃	2	9671	10241	18	〃	2	7371	7941
19	〃	2	9437	10007	19	〃	2	7137	7707
20	〃	2	9171	9741	20	〃	2	6871	7441
21	〃	2	8952	9522	21	〃	2	6652	7222
22	〃	2	8596	9166	22	〃	2	6296	6866
23	〃	2	8240	8810	23	〃	2	5940	6510
24	〃	2	7788	8358	24	〃	2	5488	6058
25	〃	2	7422	7992	25	〃	2	5122	5692
26	〃	2	6878	7448	26	〃	2	4578	5148
AVE		52		10480	AVE		52		8180



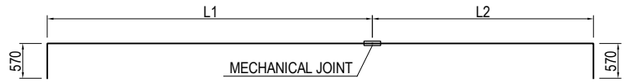
F21-1 8 – D38 × 9700 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F21-1 1	D38	2	9185	9755
2	〃	2	9164	9734
3	〃	2	9125	9695
4	〃	2	9038	9608
AVE		8		9698



F22 34 – D38 × 9470 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F22 1	D38	2	10847	11987
2	〃	2	10691	11831
3	〃	2	10498	11638
4	〃	2	10316	11456
5	〃	2	10052	11192
6	〃	2	9873	11013
7	〃	2	9537	10677
8	〃	2	9149	10289
9	〃	2	8889	10029
10	〃	2	8506	9646
11	〃	2	8104	9244
12	〃	2	7656	8796
13	〃	2	7151	8291
14	〃	2	6522	7662
15	〃	2	5667	6807
16	〃	2	4806	5946
17	〃	2	3397	4537
AVE		34		9473

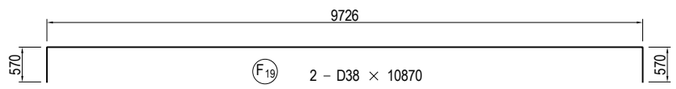


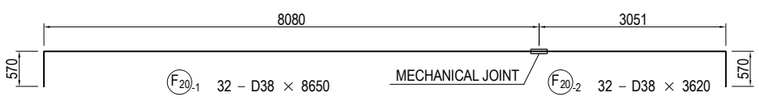
F18-1 50 – D38 × 10400 (AVE)　　F18-2 50 – D38 × 8100 (AVE)

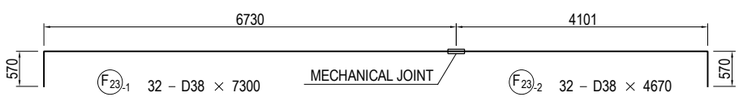
MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F18-1 1	D38	2	10907	11477	F18-2 1	D38	2	8607	9177
2	〃	2	10898	11468	2	〃	2	8598	9168
3	〃	2	10885	11455	3	〃	2	8585	9155
4	〃	2	10868	11438	4	〃	2	8568	9138
5	〃	2	10843	11413	5	〃	2	8543	9113
6	〃	2	10803	11373	6	〃	2	8503	9073
7	〃	2	10734	11304	7	〃	2	8434	9004
8	〃	2	10691	11261	8	〃	2	8391	8961
9	〃	2	10608	11178	9	〃	2	8308	8878
10	〃	2	10549	11119	10	〃	2	8249	8819
11	〃	2	10489	11059	11	〃	2	8189	8759
12	〃	2	10401	10971	12	〃	2	8101	8671
13	〃	2	10276	10846	13	〃	2	7976	8546
14	〃	2	10164	10734	14	〃	2	7864	8434
15	〃	2	10037	10607	15	〃	2	7737	8307
16	〃	2	9872	10442	16	〃	2	7572	8142
17	〃	2	9727	10297	17	〃	2	7427	7997
18	〃	2	9469	10039	18	〃	2	7169	7739
19	〃	2	9223	9793	19	〃	2	6923	7493
20	〃	2	8940	9510	20	〃	2	6640	7210
21	〃	2	8705	9275	21	〃	2	6405	6975
22	〃	2	8318	8888	22	〃	2	6018	6588
23	〃	2	7922	8492	23	〃	2	5622	6192
24	〃	2	7395	7965	24	〃	2	5095	5665
25	〃	2	6934	7504	25	〃	2	4634	5204
AVE		50		10396	AVE		50		8096

F24 42 – D38 × 9560 (AVE)

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F24 1	D38	2	10814	11954
2	〃	2	10793	11933
3	〃	2	10753	11893
4	〃	2	10663	11803
5	〃	2	10538	11678
6	〃	2	10378	11518
7	〃	2	10179	11319
8	〃	2	9992	11132
9	〃	2	9719	10859
10	〃	2	9534	10674
11	〃	2	9185	10325
12	〃	2	8781	9921
13	〃	2	8510	9650
14	〃	2	8109	9249
15	〃	2	7687	8827
16	〃	2	7213	8353
17	〃	2	6674	7814
18	〃	2	5996	7136
19	〃	2	5053	6193
20	〃	2	4063	5203
21	〃	2	2224	3364
AVE		42		9562





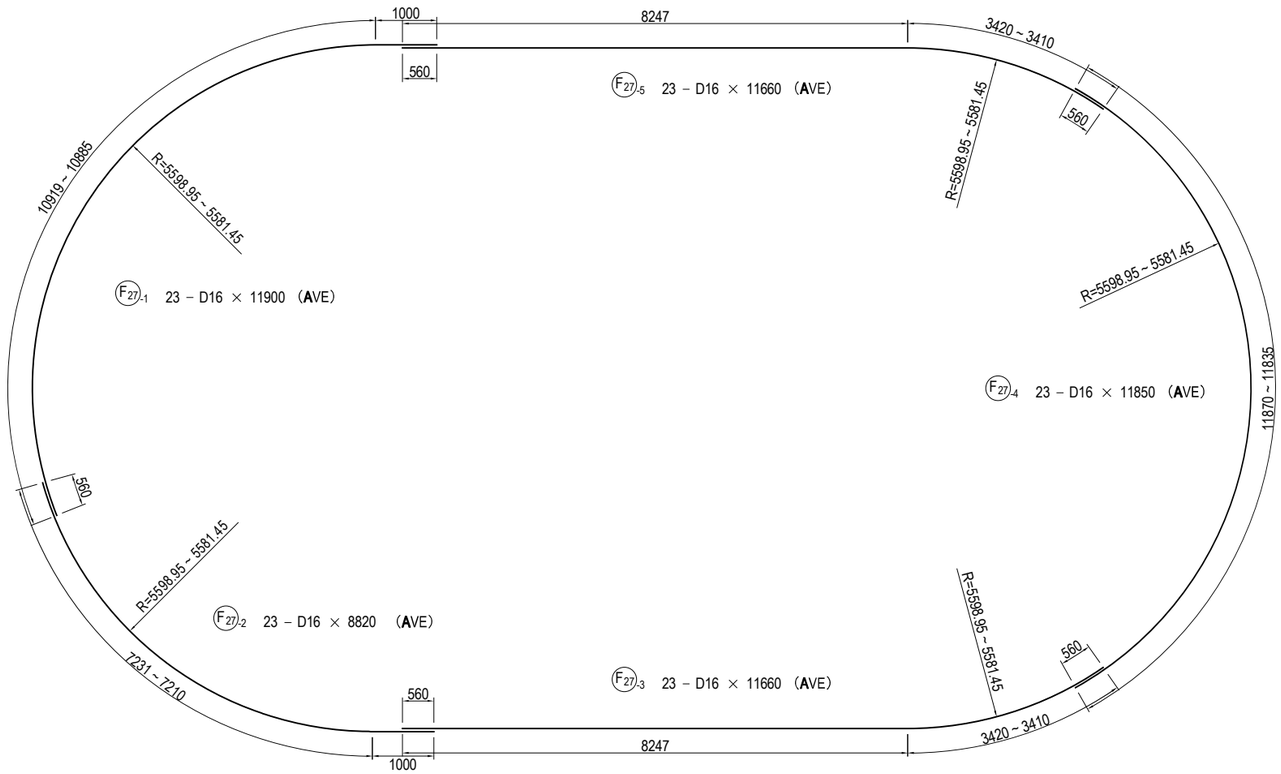


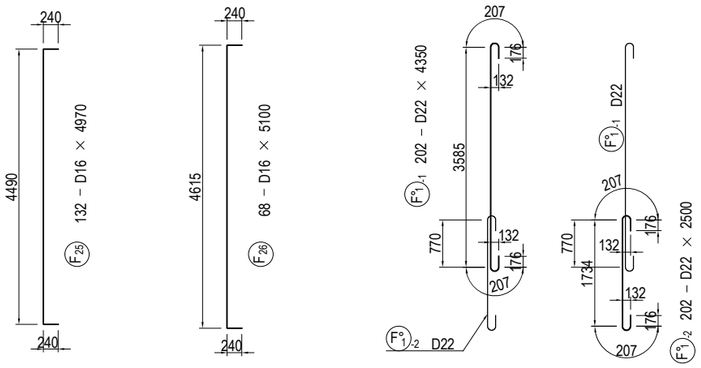
USE MATERIALS

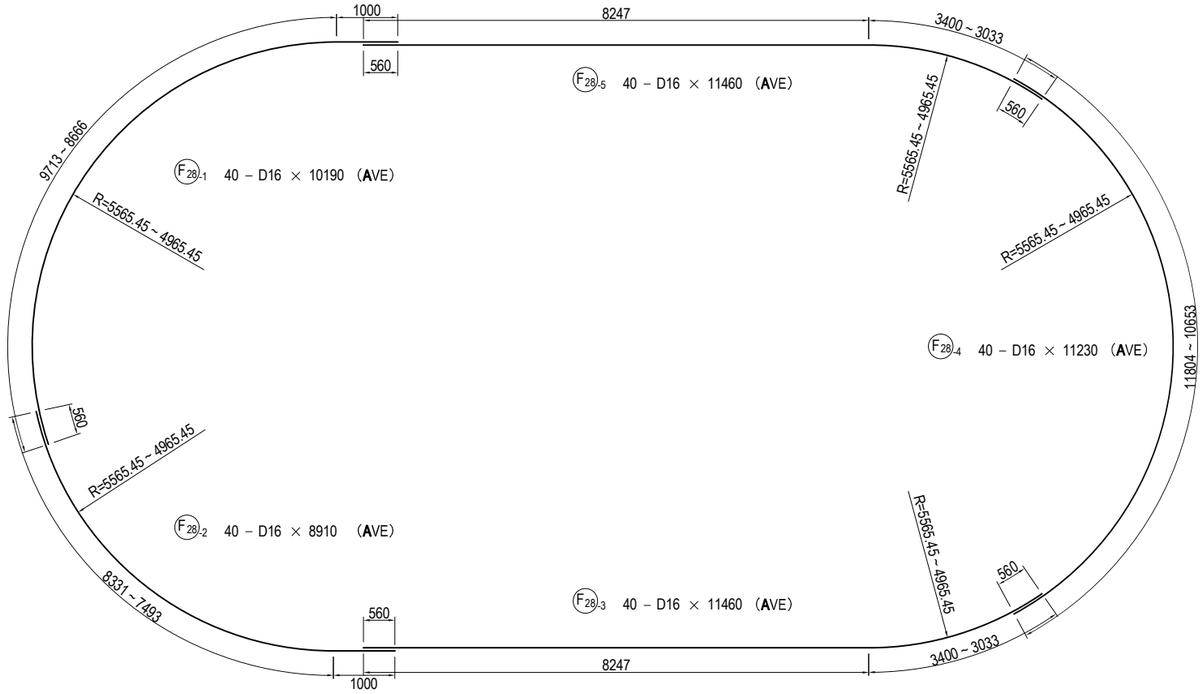
	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

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	T.TOMODA	友田智雄	27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (9)	1
CHECKED BY	T. HAYAKAWA	早川知弘	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2121

BAR ARRANGEMENT OF P111 FOOTING (10) S=1:100







Note) The joint position of the reinfocing bar is rotated 180 degrees for each step arranged.

USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

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	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (10)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2122

BAR ARRANGEMENT OF P11 FOOTING (11) NOT TO SCALE

BAR SCHEDULE

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
F 1-1	D51	10680	52	15.9	169.81	8830	(52) (AVE)
1-2	"	8380	52	"	133.24	6928	(AVE)
2-1	"	10450	52	"	166.16	8640	(52) (AVE)
2-2	"	8150	52	"	129.59	6739	(AVE)
3-1	"	10170	50	"	161.70	8085	(50) (AVE)
3-2	"	8270	50	"	131.49	6575	(AVE)
4-1	"	7500	28	"	119.25	3339	(28)
4-2	"	5160	28	"	82.04	2297	
5-1	"	7830	4	"	124.50	498	(4)
5-2	"	4970	4	"	79.02	316	
6-1	"	7010	28	"	111.46	3121	(28) (AVE)
6-2	"	3950	28	"	62.81	1759	(AVE)
7	"	9220	14	"	146.60	2052	(AVE)
8-1	"	8360	28	"	132.92	3722	(28)
8-2	"	4000	28	"	63.60	1781	
9-1	"	9120	4	"	145.01	580	(4)
9-2	"	3380	4	"	53.74	215	
10-1	"	7980	20	"	126.88	2538	(20) (AVE)
10-2	"	2500	20	"	39.75	795	
11	"	10540	18	"	167.59	3017	(AVE)
12-1	"	3470	4	"	55.17	221	(4) (AVE)
12-2	"	1200	4	"	19.08	76	
13-1	"	7470	32	"	118.77	3801	(32)
13-2	"	4590	32	"	72.98	2335	
14-1	"	8360	18	"	132.92	2393	(18) (AVE)
14-2	"	2500	18	"	39.75	716	
15	"	9350	20	"	148.67	2973	(AVE)
16-1	"	4600	2	"	73.14	146	(2)
16-2	"	1300	2	"	20.67	41	
17-1	D38	10480	52	8.95	93.80	4878	(52) (AVE)
17-2	"	8180	52	"	73.21	3807	(AVE)
18-1	"	10400	50	"	93.08	4654	(50) (AVE)
18-2	"	8100	50	"	72.50	3625	(AVE)
19	"	10870	2	"	97.29	195	
20-1	"	8650	32	"	77.42	2477	(32)
20-2	"	3620	32	"	32.40	1037	
21-1	"	9700	8	"	86.82	695	(8) (AVE)
21-2	"	2500	8	"	22.38	179	
22	"	9470	34	"	84.76	2882	(AVE)
23-1	"	7300	32	"	65.34	2091	(32)
23-2	"	4670	32	"	41.80	1338	
24	"	9560	42	"	85.56	3594	(AVE)

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
F 25	D16	4970	132	1.56	7.75	1023	
26	"	5100	68	"	7.96	541	
27-1	"	11900	23	"	18.56	427	(AVE)
27-2	"	8820	23	"	13.76	316	(AVE)
27-3	"	11660	23	"	18.19	418	(AVE)
27-4	"	11850	23	"	18.49	425	(AVE)
27-5	"	11660	23	"	18.19	418	(AVE)
28-1	"	10190	40	"	15.90	636	(AVE)
28-2	"	8910	40	"	13.90	556	(AVE)
28-3	"	11460	40	"	17.88	715	(AVE)
28-4	"	11230	40	"	17.52	701	(AVE)
28-5	"	11460	40	"	17.88	715	(AVE)
					SUBTOTAL	122872 kg	
F° 1-1	D22	4350	202	3.04	13.22	2670	
1-2	"	2500	202	"	7.60	1535	
					SUBTOTAL	4205 kg	

(MECHANICAL JOINT)

D51	84529 kg		(322)
D38	31452 "		(174)
D22	4205 "		
D16	6891 "		
TOTAL	127077 kg		(496)

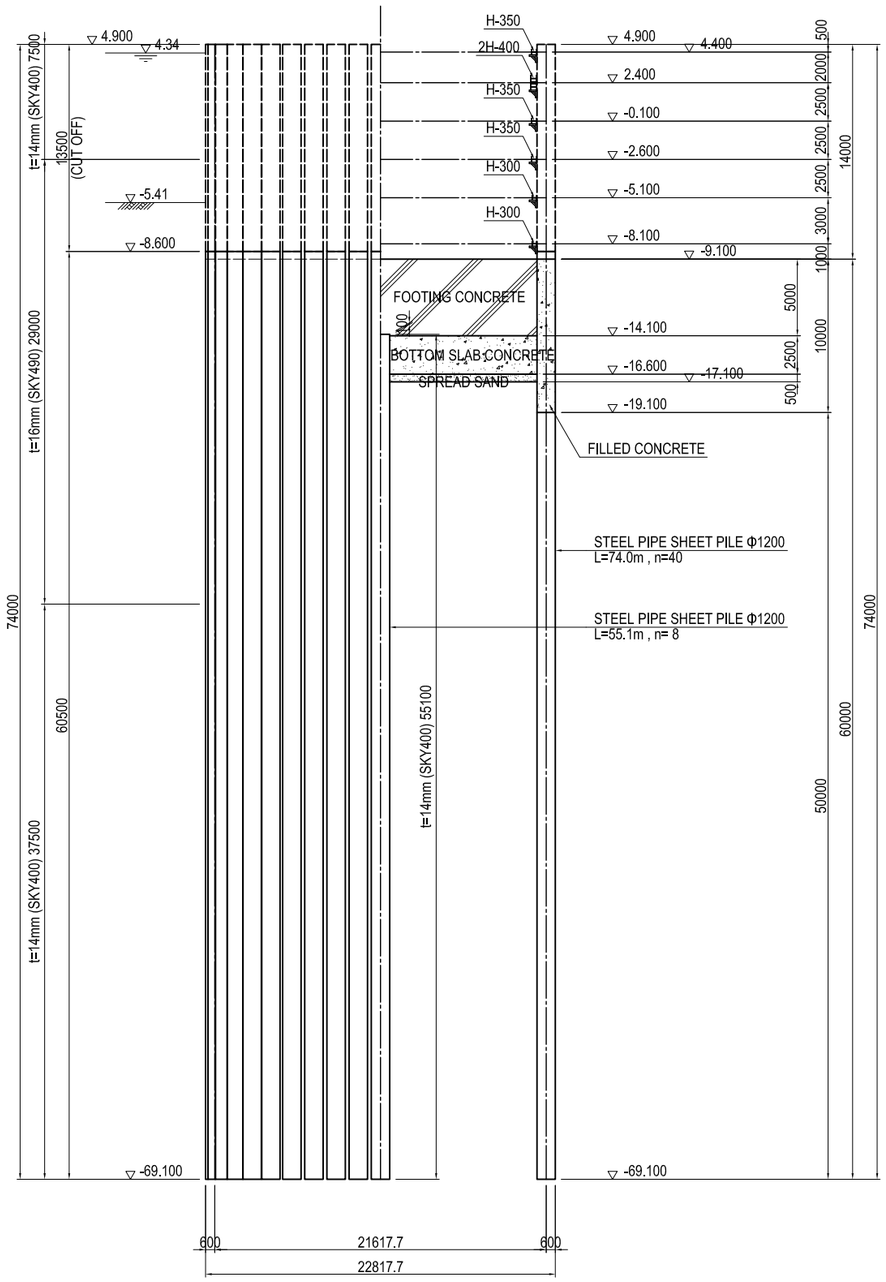
USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

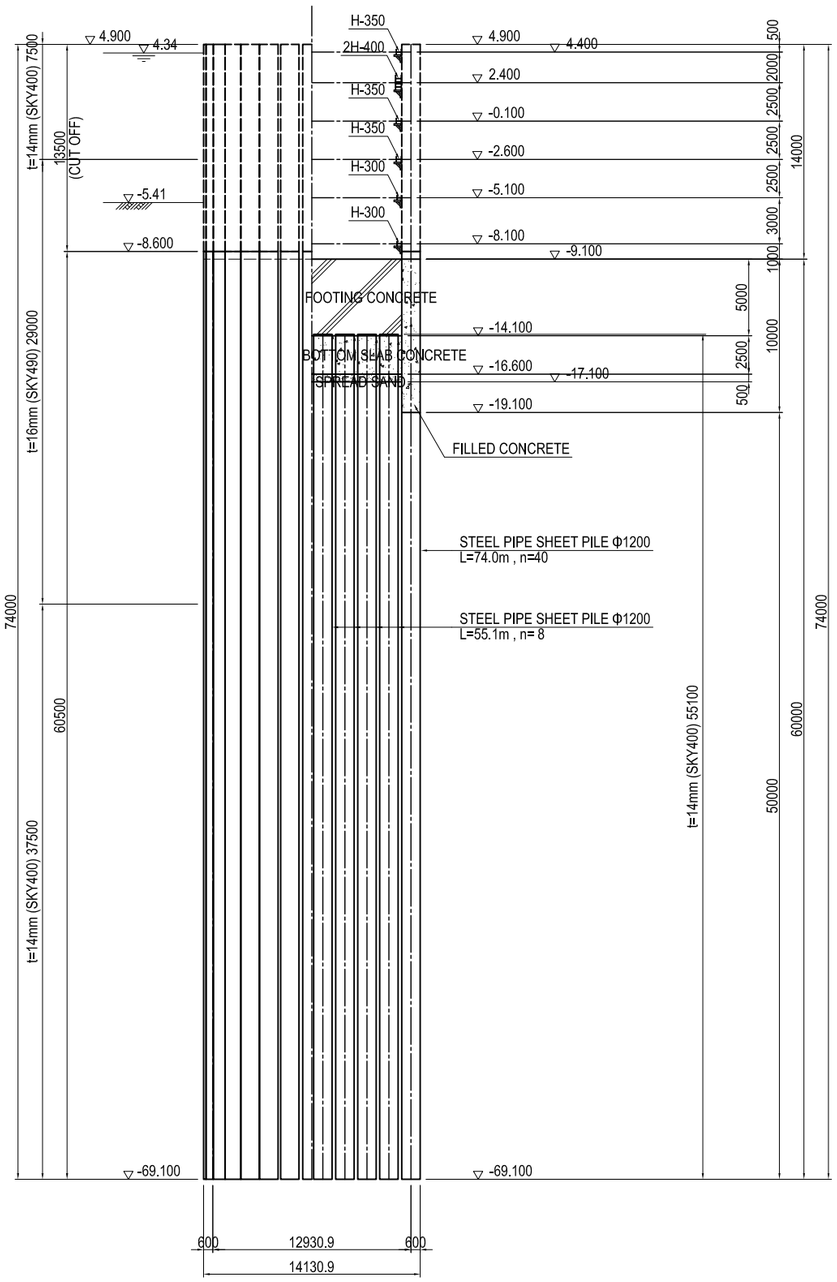
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P11 FOOTING (11)	1
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2123

GENERAL DRAWING OF STEEL PIPE SHEET PILE FOUNDATION OF P11 PIER S=1:400

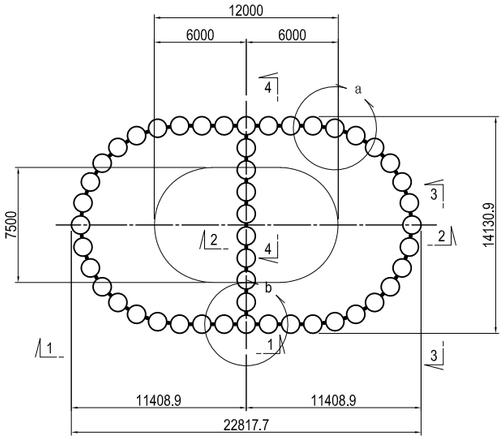
FRONT ELEVATION
1 - 1　　2 - 2



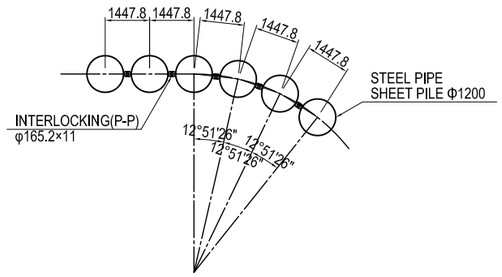
SIDE ELEVATION
3 - 3　　4 - 4



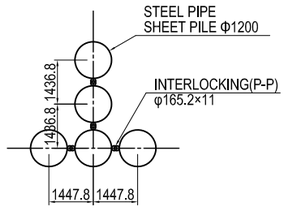
PLAN



DETAIL a S=1:200



DETAIL b S=1:200



USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

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	T.TOMODA / 27. Nov.2017
				CHECKED BY	T. HAYAKAWA / 28. Nov.2017
				APPROVED BY	Y. SANO / 29. Nov.2017

DRAWING TITLE: GENERAL DRAWING OF STEEL PIPE SHEET PILE FOUNDATION OF P11 PIER

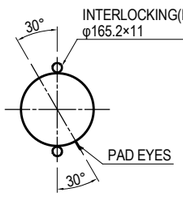
PACKAGE: 1

DWG No.: P1-CS-2124

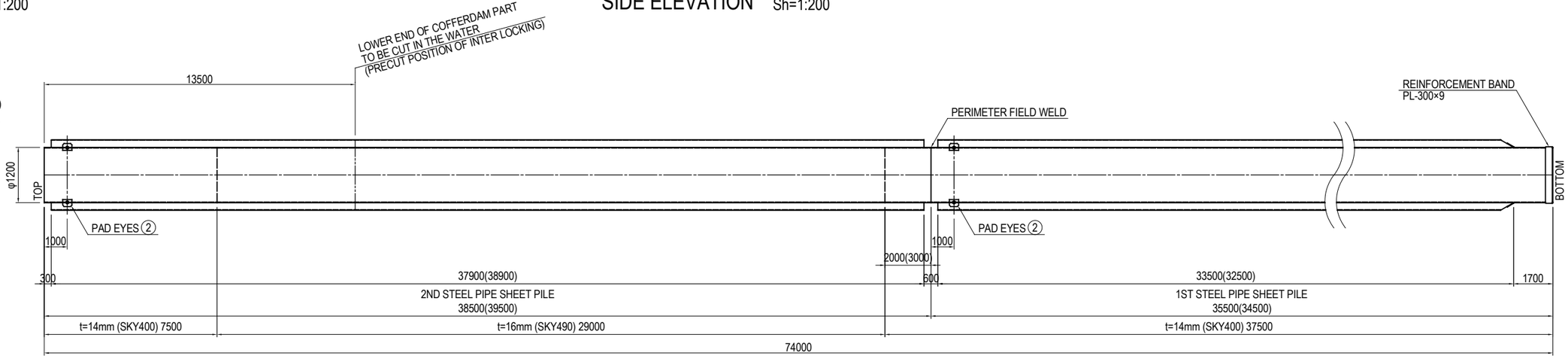
DETAIL OF STEEL PIPE SHEET PILE OF P11 PIER（1）

CROSS SECTION S=1:200

TYPE A
（TYPE **B**）

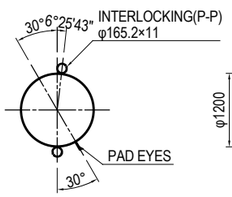


SIDE ELEVATION Sv=1:100 Sh=1:200

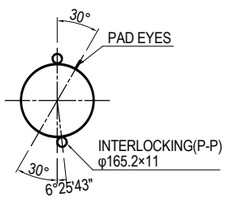


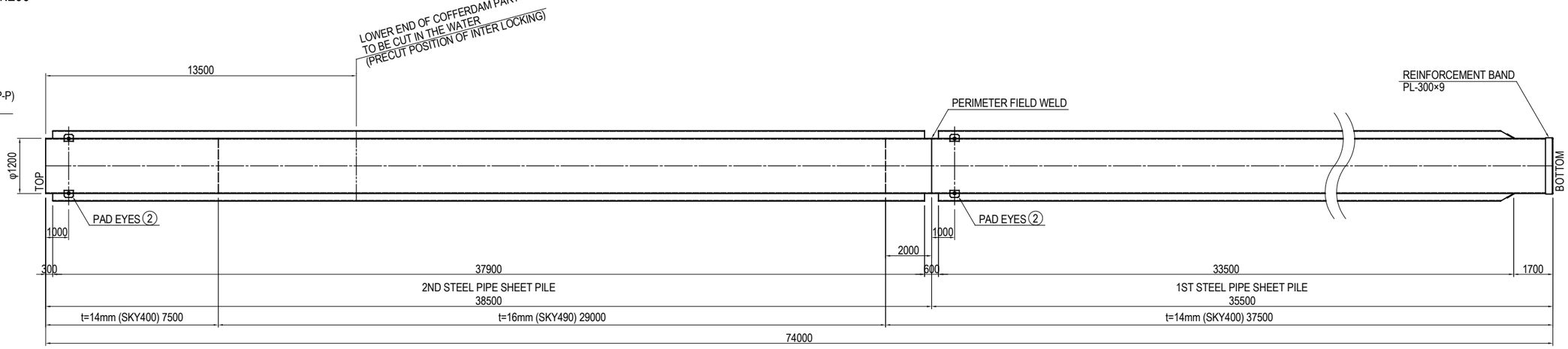
CROSS SECTION S=1:200

TYPE C

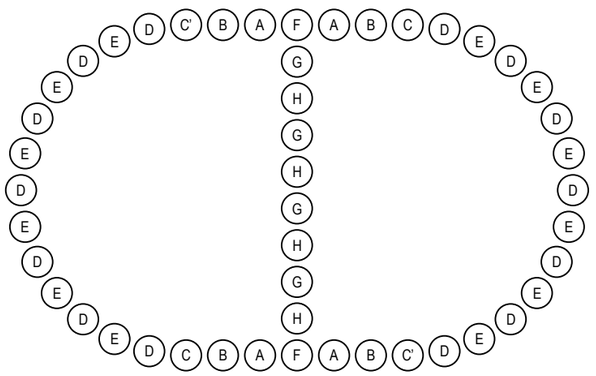


TYPE C'



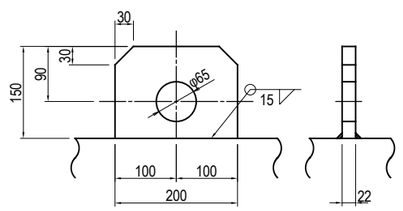


STEEL PIPE SHEET PILE TYPE AND POSITION

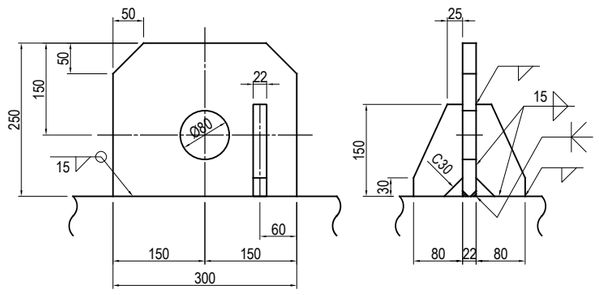


DETAIL OF EYES S=1:10

PAD EYES ① **PL-200**x150x22（SM**490A**）



PAD EYES ② **PL-300**x250x22（SM**490A**）



Note: Drawing of Pad Eye (metal fitting for hanging) and the position of perimeter field weld can be used for reference only.

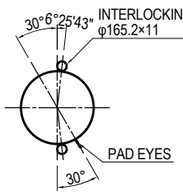
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	**DETAIL OF STEEL PIPE SHEET PILE OF P11 PIER**（1）	1
CHECKED BY	T. HAYAKAWA	早川和男	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2125

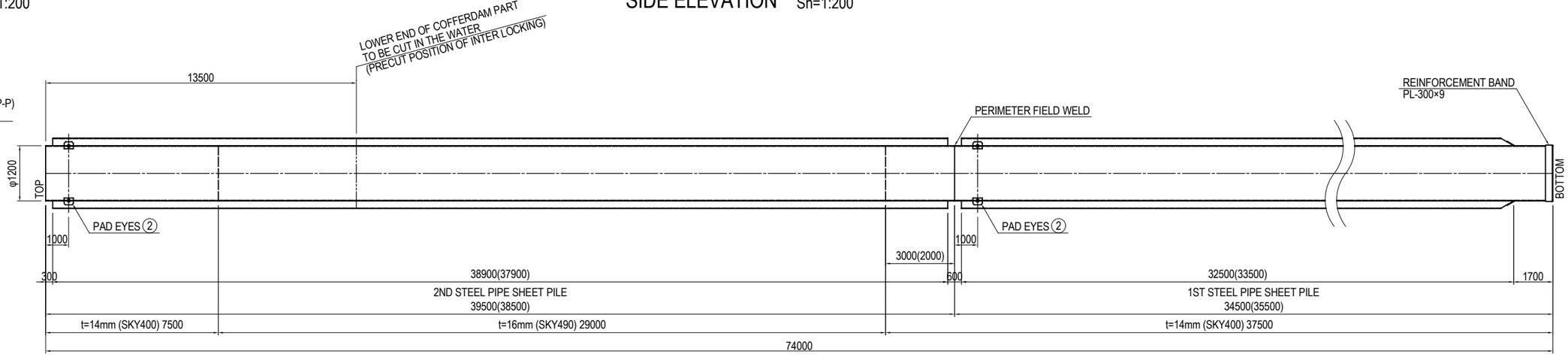
DETAIL OF STEEL PIPE SHEET PILE OF P11 PIER（2）

CROSS SECTION S=1:200

TYPE D
（TYPE E）

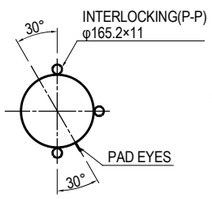


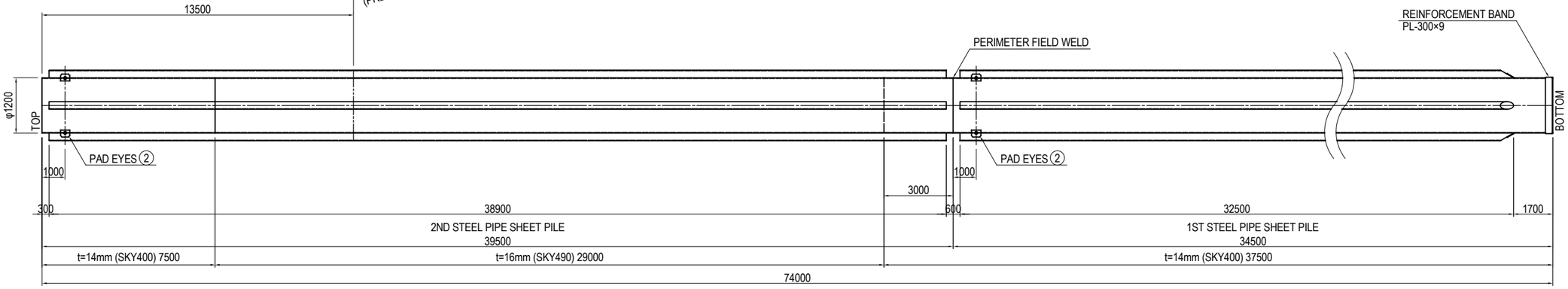
SIDE ELEVATION Sv=1:100 Sh=1:200



CROSS SECTION S=1:200

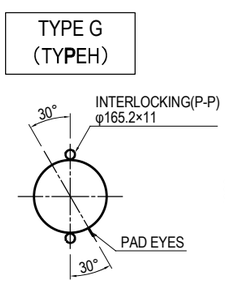
TYPE F

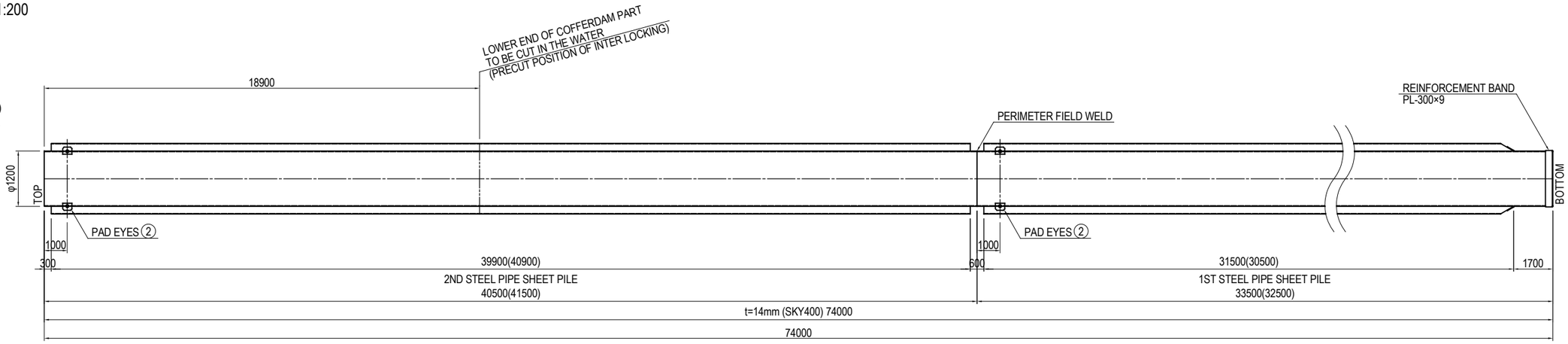




CROSS SECTION S=1:200

TYPE G
（TYPEH）





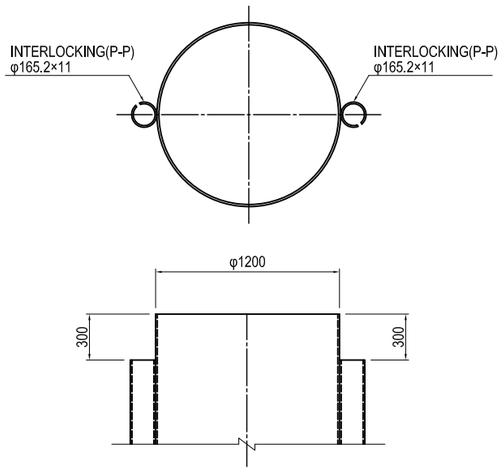
Note: Drawing of Pad Eye (metal fitting for hanging) and the position of perimeter field weld can be used for reference only.

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.		

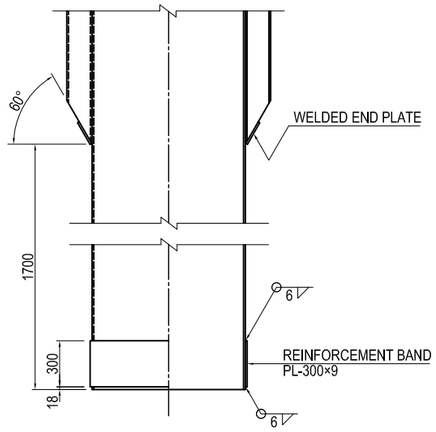
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	DETAIL OF STEEL PIPE SHEET PILE OF P11 PIER（2）	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2126

DETAIL OF INTERLOCKING OF STEEL PIPE SHEET PILE OF P11 PIER

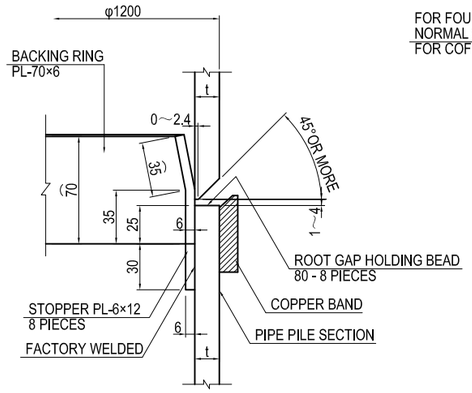
DETAIL OF STEEL PIPE SHEET PILE TOP S=1:40



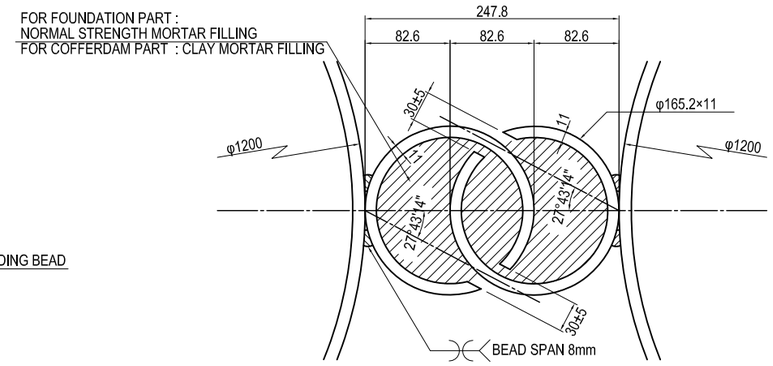
DETAIL OF STEEL PIPE SHEET PILE TOE S=1:40



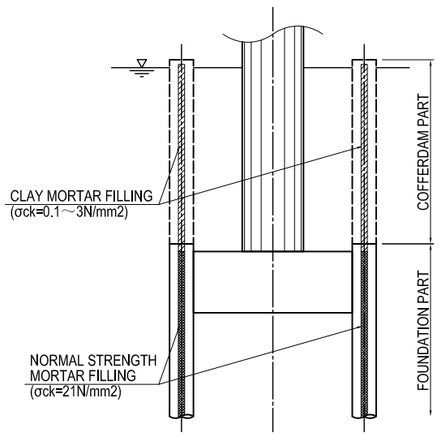
DETAIL OF PERIMETER FIELD WELDING OF STEEL PIPE SHEET PILE S=1:4



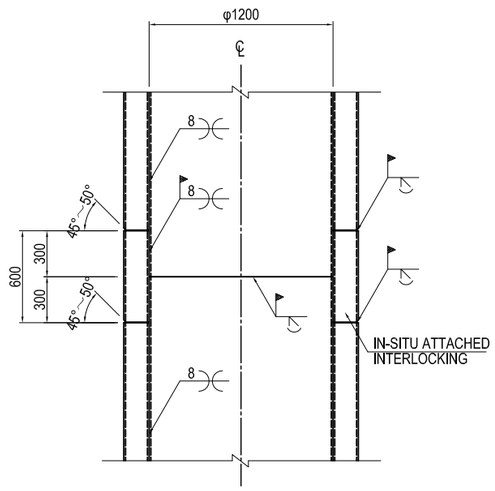
DETAIL OF CONNECTED INTERLOCKING(P-P) S=1:6



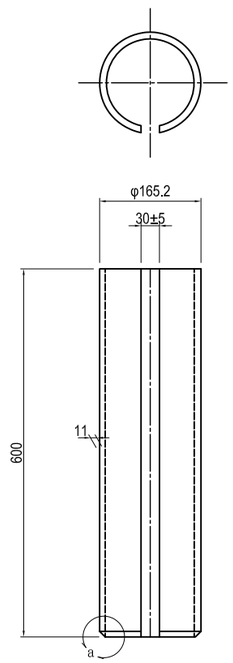
TREATMENT OF STEEL PIPE SHEET PILE INTERLOCKING



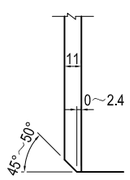
DETAIL OF IN-SITU LONGITUDINAL WELDING PART S=1:40



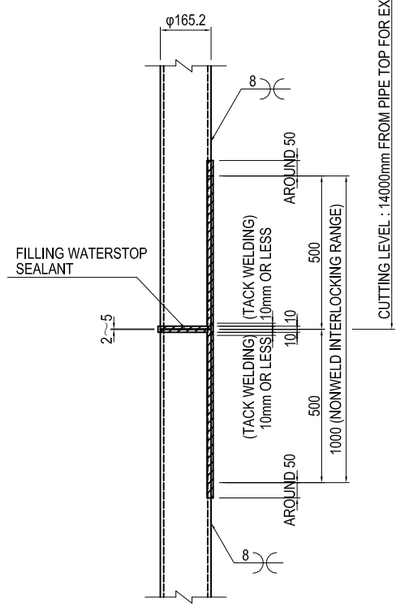
DETAIL OF IN-SITU ATTACHED INTERLOCKING S=1:10



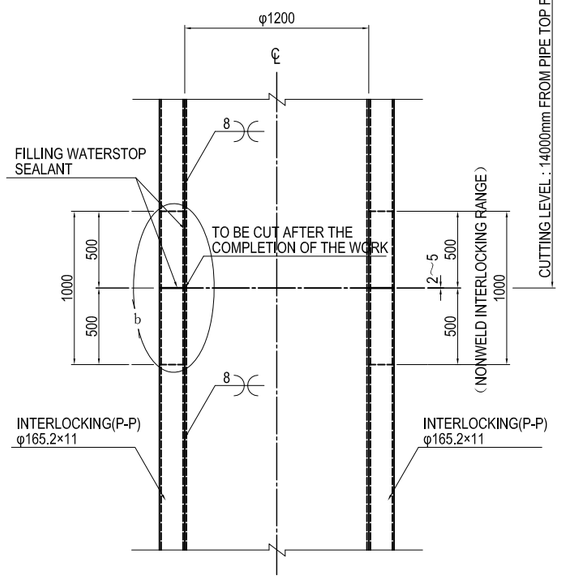
DETAIL a



DETAIL b



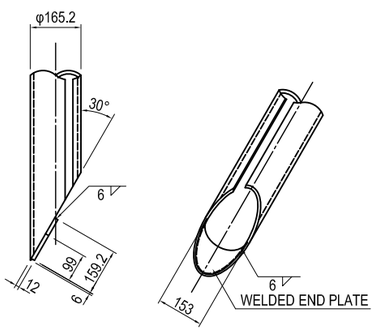
DETAIL OF PRECUT INTERRLOCKING S=1:40



CUTTING LEVEL : 14000mm FROM PIPE TOP FOR EXTERNAL-WALL SHEET PILING

CUTTING LEVEL : 14000mm FROM PIPE TOP FOR EXTERNAL-WALL SHEET PILING

DETAIL OF INTERRLOCKING TOE S=1:20

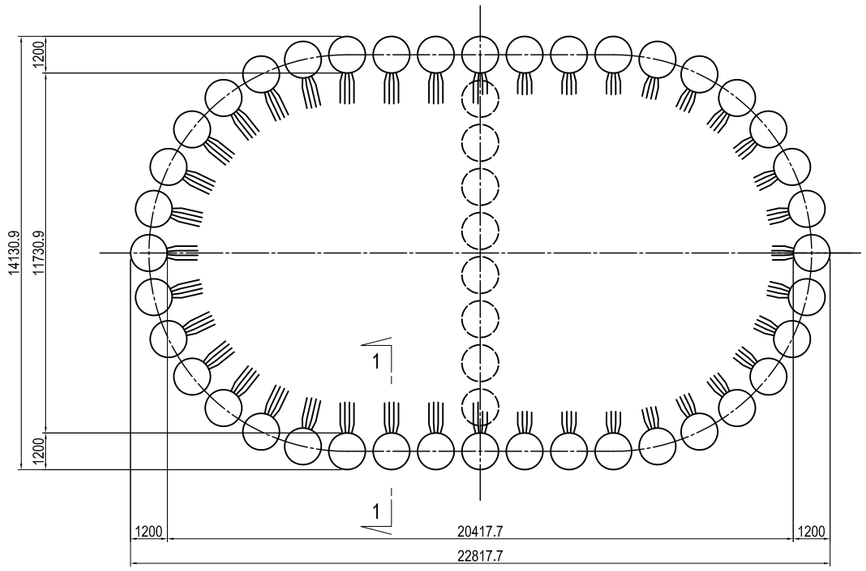


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	DETAIL OF INTERLOCKING OF STEEL PIPE SHEET PILE OF P11 PIER	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017		P1-CS-2127

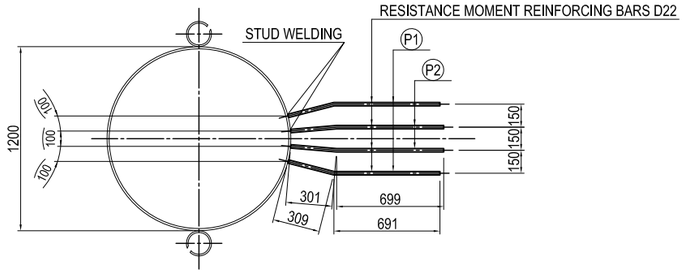
DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING OF P11 PIER

PLAN S=1:200

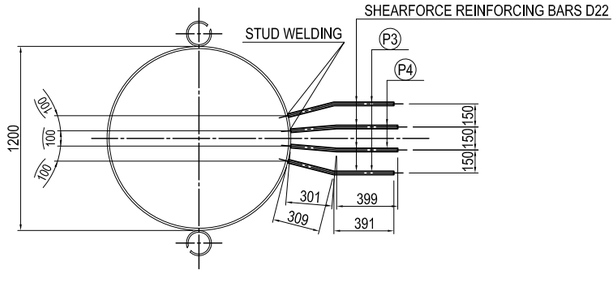


CROSS SECTION OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND REINFORCING BARS S=1:40

3 - 3 CROSS SECTION
(RESISTANCE MOMENT REINFORCING BARS CONNECTION PART)

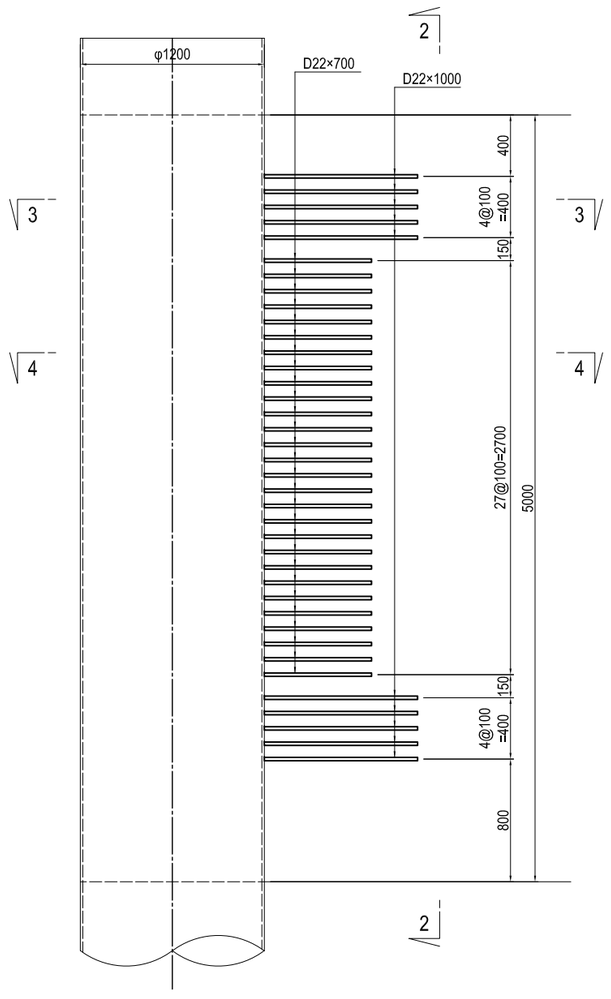


4 - 4 CROSS SECTION
(SHEARFORCE REINFORCING BARS CONNECTION PART)

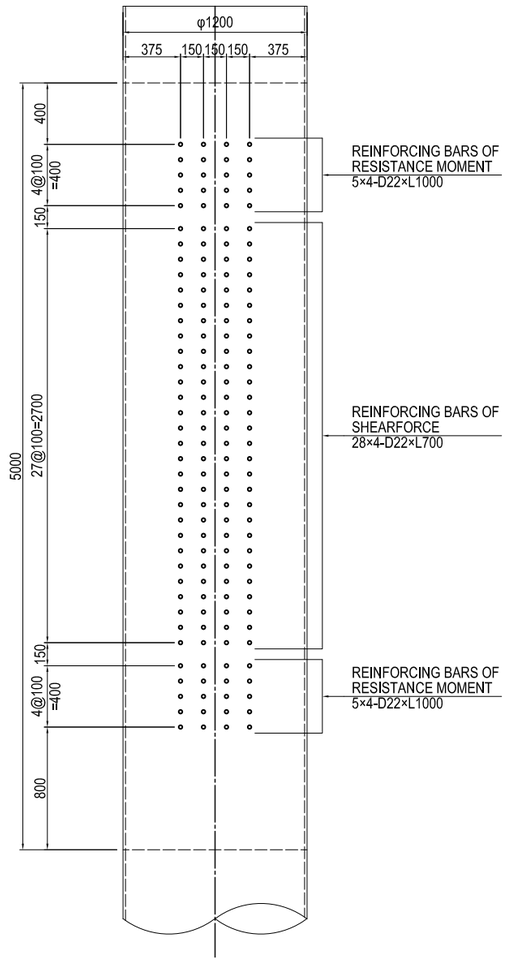


DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING S=1:40

1 - 1 CROSS SECTION



2 - 2 CROSS SECTION



FABRICATION OF REINFORCING BARS S=1:40

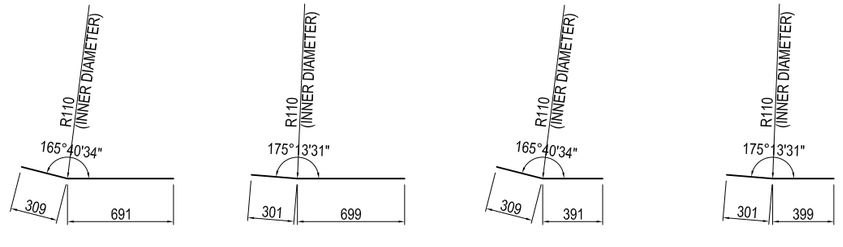


TABLE OF REINFORCING BARS

MARK	TYPE	LENGTH (mm)	PIECES (piece)	UNIT WEIGHT (kg/m)	UNIT WEIGHT (kg/piece)	WEIGHT (kg)	GRADE	MEMO
P1	D22	1000	800	3.04	3.04	2432	SD345 for STUD WELDING	
P2	D22	1000	800	3.04	3.04	2432	SD345 for STUD WELDING	
P3	D22	700	2240	3.04	2.13	4771	SD345 for STUD WELDING	
P4	D22	700	2240	3.04	2.13	4771	SD345 for STUD WELDING	
					D22	14406	kg	
					TOTAL WEIGHT	14406	kg	

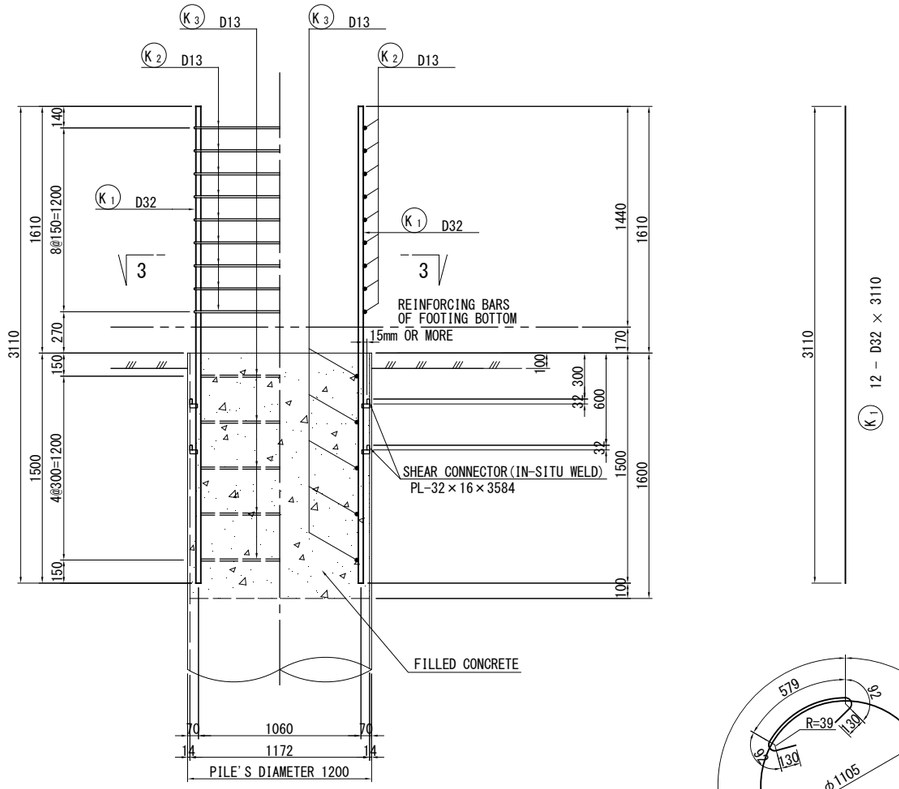
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田智雄	27. Nov.2017	DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING OF P11 PIER	1
CHECKED BY	T. HAYAKAWA	早川知子	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2128

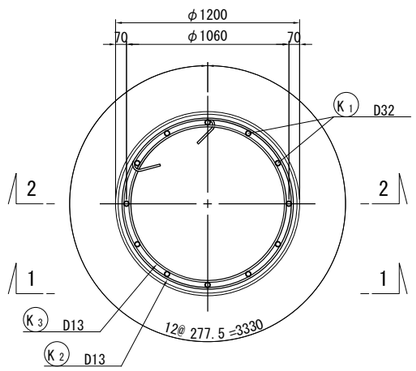
DETAIL OF PILE TOP CONNECTION TO THE BASE CONCRETE OF P11 PIER S=1:40

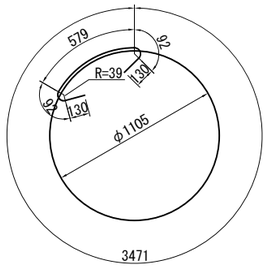
DETAIL OF PILE TOP

1 - 1　　2 - 2

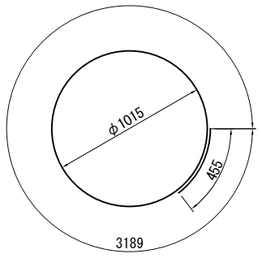


3 - 3





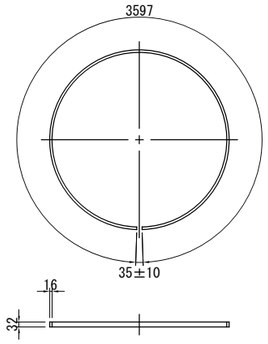
K2　9 - D13 × 4490



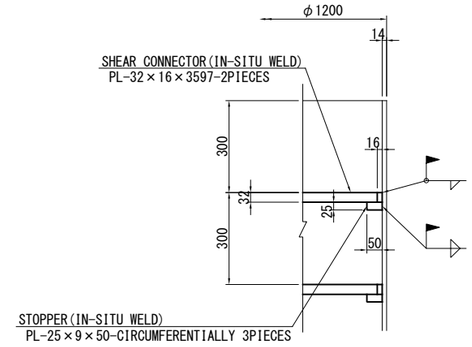
K3　5 - D13 × 3640

DETAIL OF ATTACHMENT OF SHEAR CONNECTOR

CENTER OF LENGTH



SETTING IN THE FIELD S=1:20



MATERIAL LIST

WEIGHT/EA.

MARKS	SECTION SIZE	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	MATERIAL	REMARKS
PILE TOP ACCOMPANYING ITEMS								
PL	PL-32*16	3597	2	4.019	14.456	28.9	SS400	SHEAR CONNECTOR
PL	PL-25*9	50	6	1.766	0.088	0.5	SS400	STOPPER
REINFORCEMENT								
K1	D32	3110	12	6.23	19.38	233	SD345	|
K2	D13	4490	9	0.995	4.47	40	SD345	○
K3	D13	3640	5	0.995	3.62	18	SD345	○
Total						291		
FILLED CONCRETE　(σck = 24 N/mm^2)								
V = 1/4 × π × 1.172^2 × 1.600　=　1.726 m^3								

ITEM	DIVISION		UNIT CONTENT	WEIGHT/EA.	QUANTITY
NUMBER OF PILE			Number		8
PILE TOP	SS400	TOTAL	kg	29.4	235.2
REINFORCEMENT	SD345	D32	kg	233	1864
		D13	kg	58	464
		TOTAL	kg	291	2328
FILLED CONCRETE	σck = 24 N/mm^2		m^3	1.726	13.8

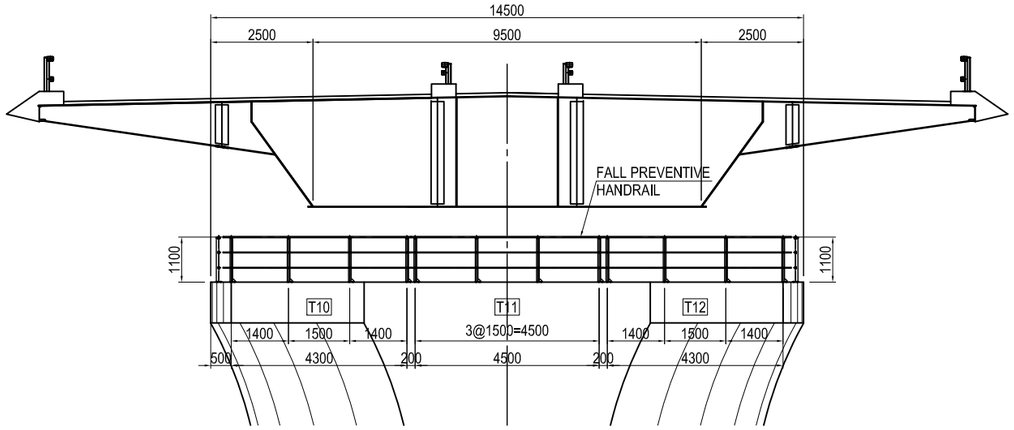
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田智雄	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川 知弘	28. Nov.2017
APPROVED BY	Y. SANO	佐野 雄一	29. Nov.2017

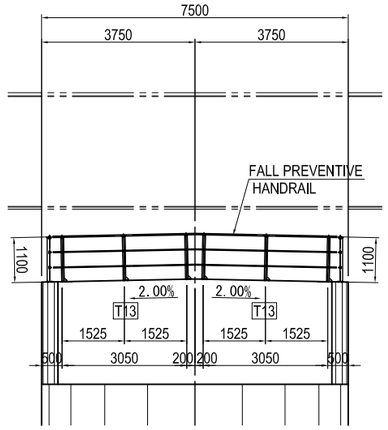
DRAWING TITLE	PACKAGE
DETAIL OF PILE TOP CONNECTION TO THE BASE CONCRETE OF P11 PIER	1
	DWG No.
	P1-CS-2129

FALL PREVENTIVE HANDRAIL OF P11 PIER (1) S=1:150

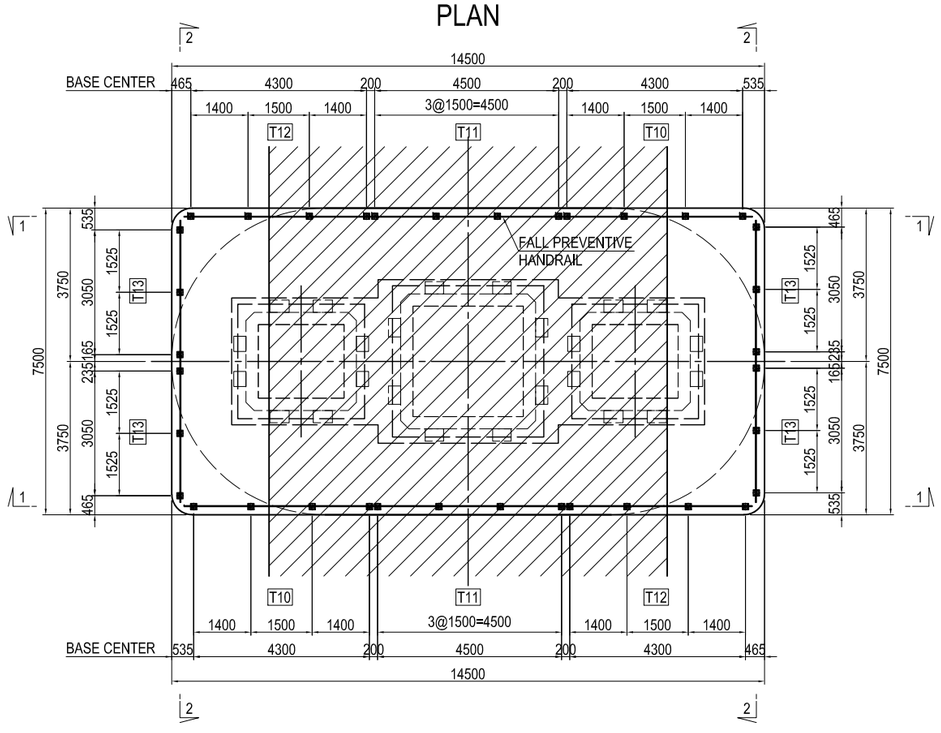
FRONT ELEVATION
1 - 1



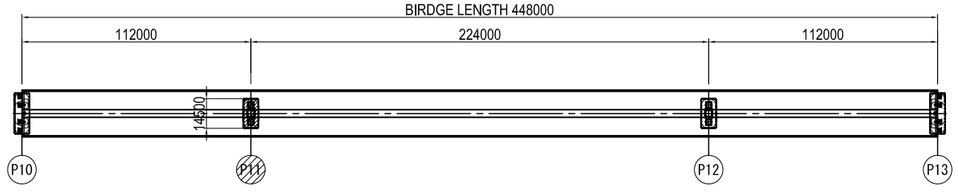
SIDE ELEVATION
2 - 2



PLAN



KEY PLAN

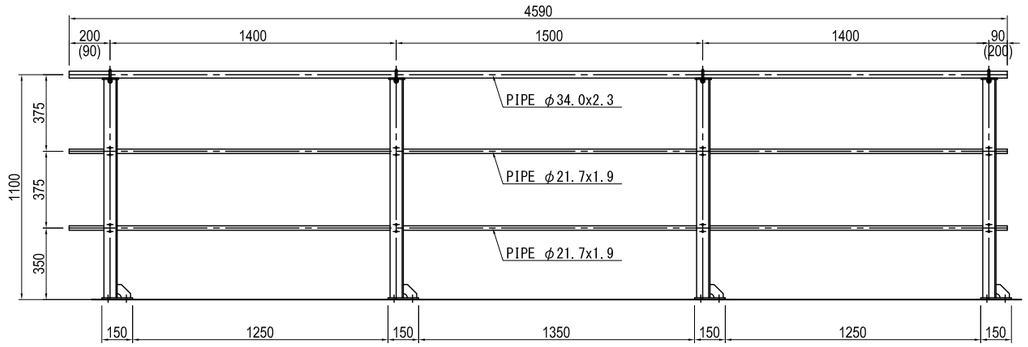


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	FALL PREVENTIVE HANDRAIL OF P11 PIER (1)	1
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017		P1-CS-2130

FALL PREVENTIVE HANDRAIL OF P11 PIER (2) S=1:30

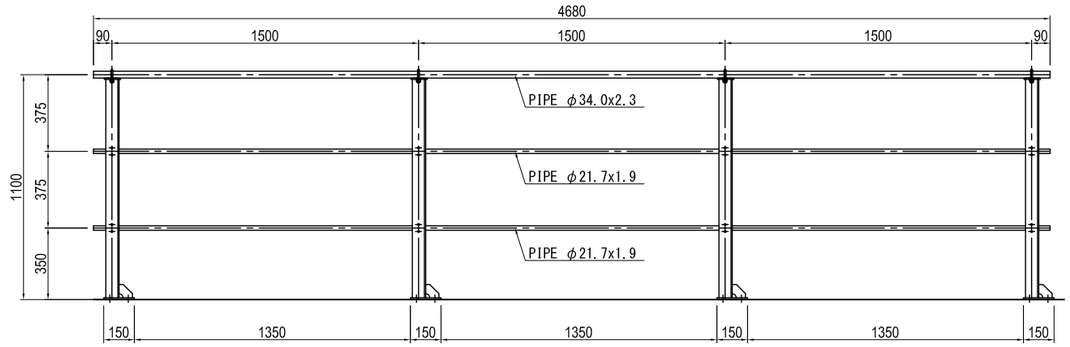
T10 (T12)



<T10,T12> Production volume : each2 (per pier)

1-PIPE φ34.0x2.3x4590 (STK400)	4-RIB PL 65x6x65 (SM400A)
2-PIPE φ21.7x1.9x4590 (STK400)	4-U.Bolt M10 Nominal25C
4-L 65x65x6x1069	8-U.Bolt M10 Nominal15C
4-PL 115x6x80 (SM400A)	16-Driving anchor M16x125
4-BASE PL 150x9x150 (SM400A)	

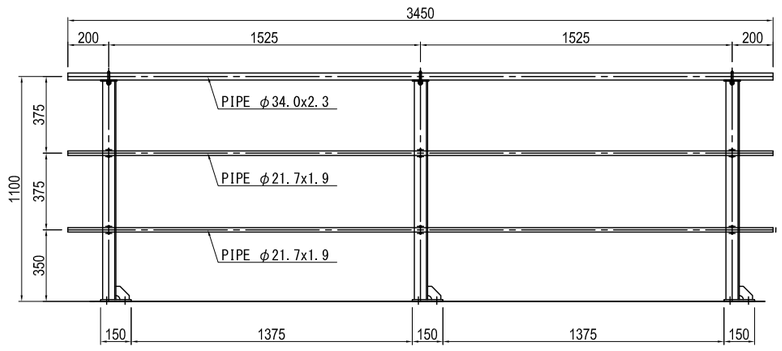
T11



<T11> Production volume : 2 (per pier)

1-PIPE φ34.0x2.3x4680 (STK400)	4-RIB PL 65x6x65 (SM400A)
2-PIPE φ21.7x1.9x4680 (STK400)	4-U.Bolt M10 Nominal25C
4-L 65x65x6x1069	8-U.Bolt M10 Nominal15C
4-PL 115x6x80 (SM400A)	16-Driving anchor M16x125
4-BASE PL 150x9x150 (SM400A)	

T13



<T13> Production volume : 4 (per pier)

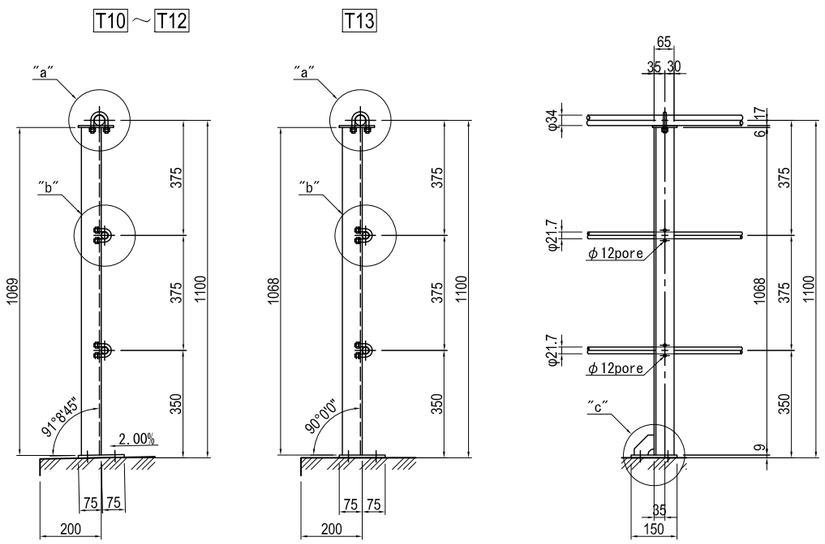
1-PIPE φ34.0x2.3x3450 (STK400)	3-RIB PL 65x6x65 (SM400A)
2-PIPE φ21.7x1.9x3450 (STK400)	3-U.Bolt M10 Nominal25C
3-L 65x65x6x1068	6-U.Bolt M10 Nominal15C
3-PL 115x6x80 (SM400A)	12-Driving anchor M16x125
3-BASE PL 150x9x150 (SM400A)	

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: 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	T.TOMODA	友田富雄	27. Nov.2017	FALL PREVENTIVE HANDRAIL OF P11 PIER (2)	1
CHECKED BY	T. HAYAKAWA	早川和男	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017		P1-CS-2131

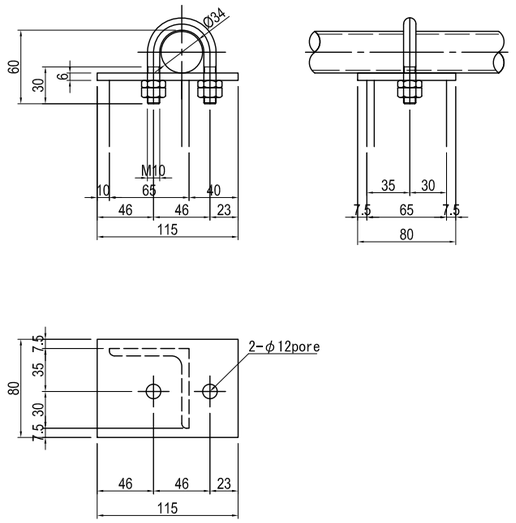
FALL PREVENTIVE HANDRAIL OF P11 PIER (3) S=1:20

DETAIL OF HANDRAIL S=1:20



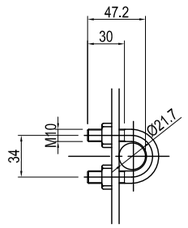
"a" DETAIL S=1:5

U.Bolt Nominal 25C

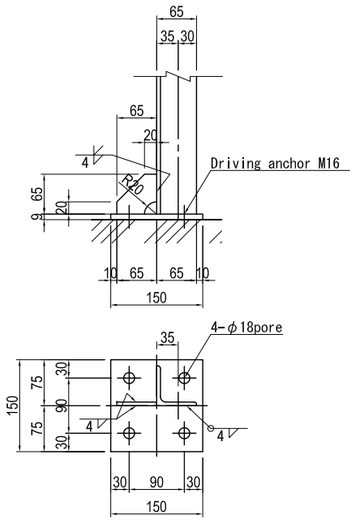


"b" DETAIL S=1:5

U.Bolt Nominal 15C



"c" DETAIL S=1:10



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.）

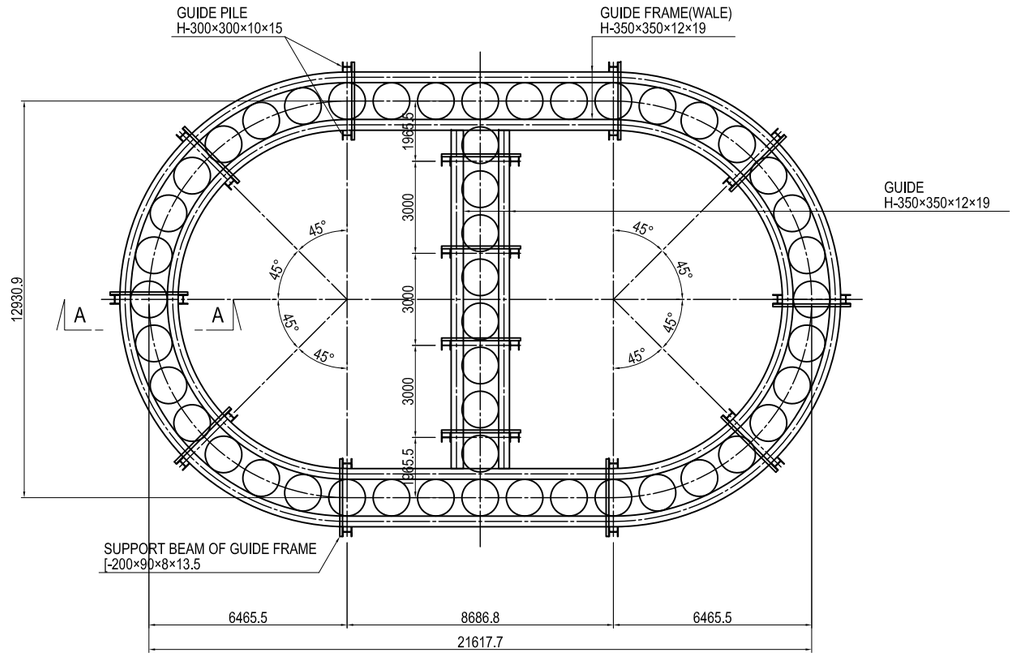
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017

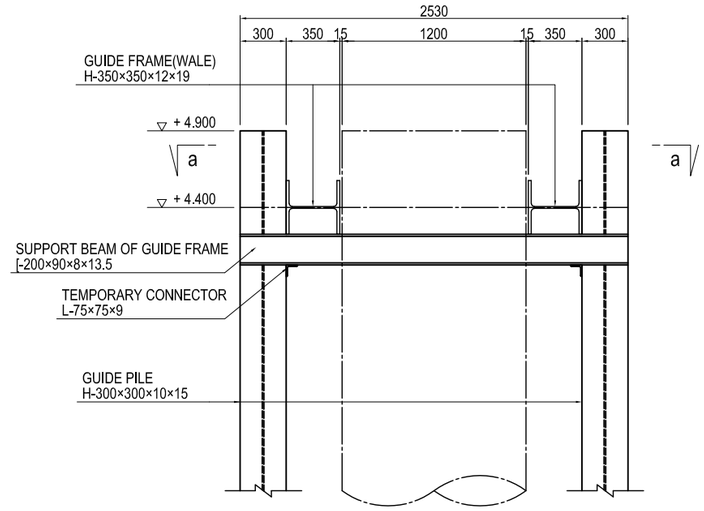
DRAWING TITLE	PACKAGE
FALL PREVENTIVE HANDRAIL OF P11 PIER (2)	1
	DWG No.
	P1-CS-2132

(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P11 PIER（1）

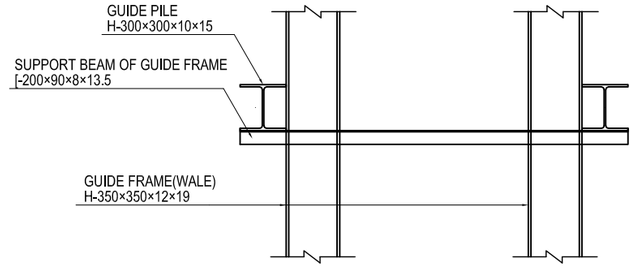
LAYOUT PLAN OF GUIDE FRAMES AND GUIDE PILES S=1:200



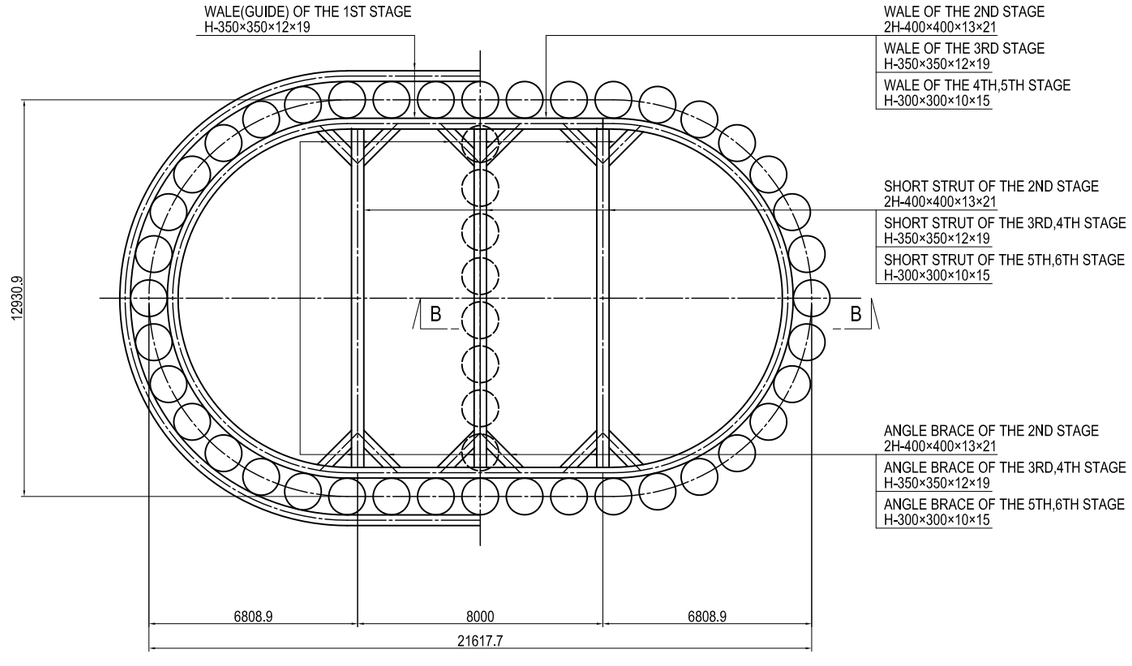
DETAIL OF ATTACHMENT OF GUIDE PILES AND GUIDE FRAMES S=1:40



a - a



LAYOUT PLAN OF STRUTS AND WALES S=1:200

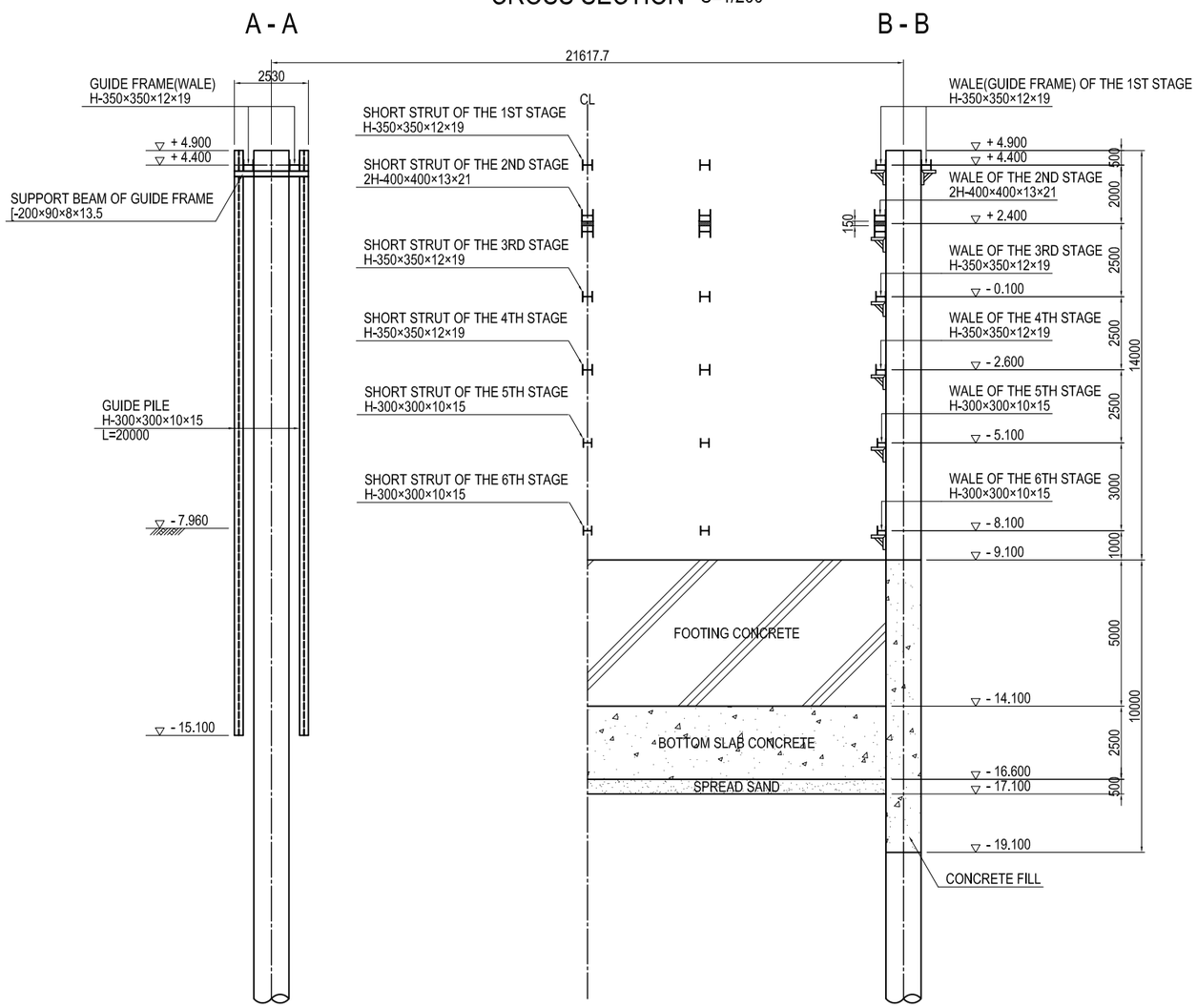


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

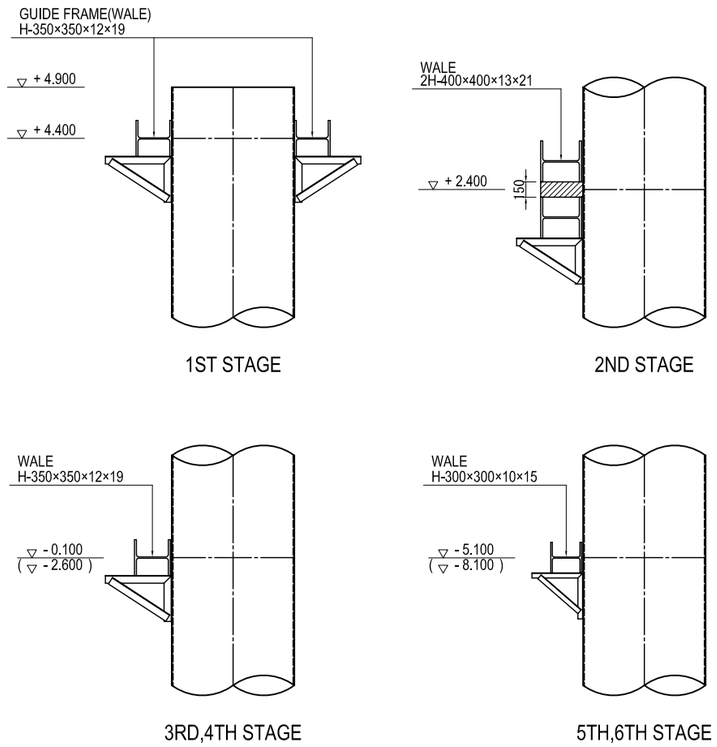
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T. HAYAKAWA		27. Nov.2017	(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P11 PIER (1)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2133

(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P11 PIER （2）

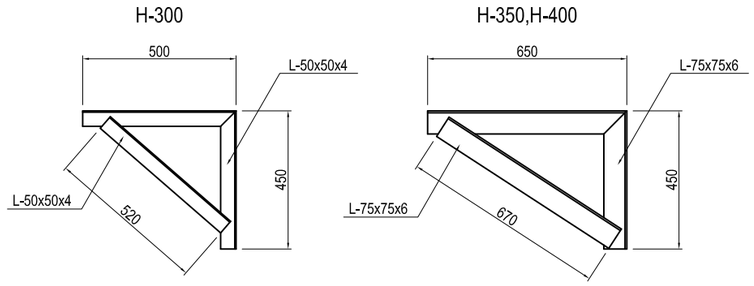
CROSS SECTION S=1/200



DETAIL OF ATTACHMENT OF WALE S=1:60



DETAIL OF BRACKET S=1:20

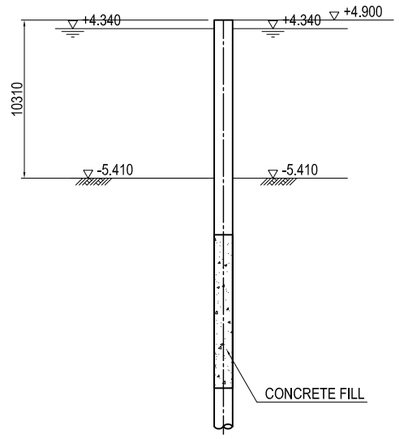


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T. HAYAKAWA		27. Nov.2017	(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P11 PIER (2)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2134

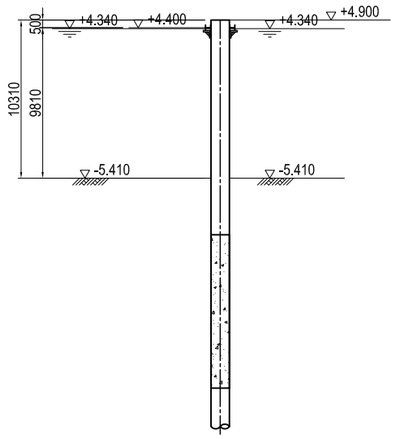
(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P11 PIER（1） S=1:400

STEP 1



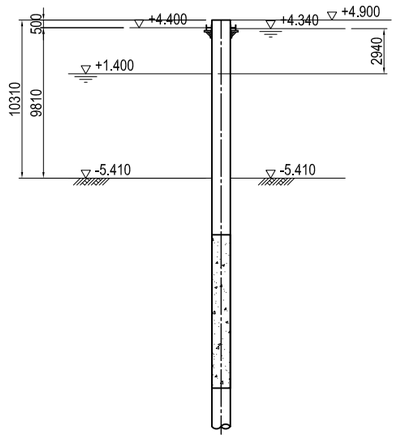
Excavate inside of exterior sheet pilles and filled with concrete as shown.

STEP 2



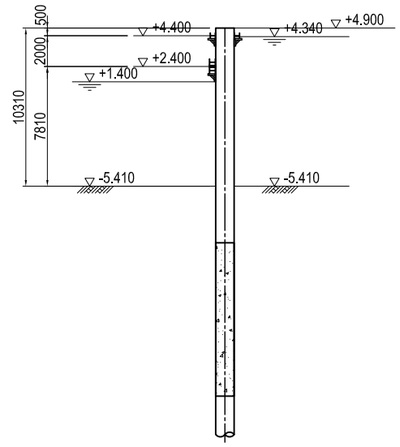
The 1st support Installation.

STEP 3



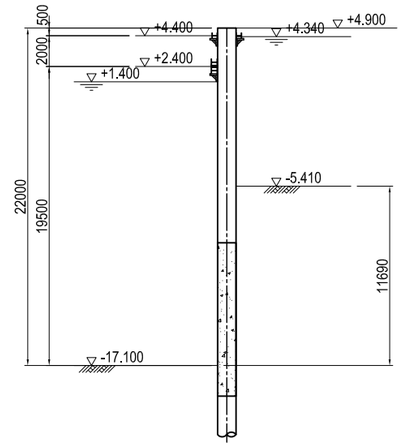
Draining the inside of cofferdam up to +1.400m level.

STEP 4



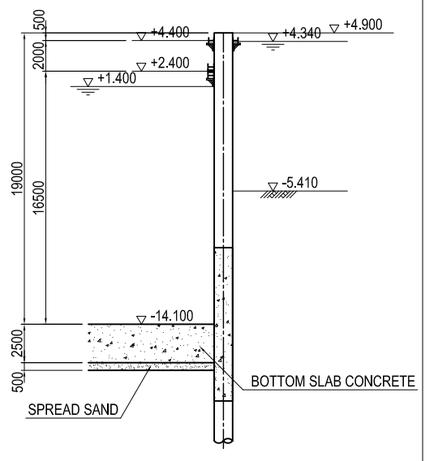
The 2nd support Installation.

STEP 5



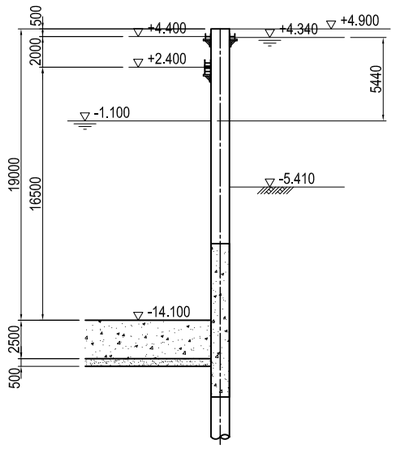
Underwater excavation up to -17.100m level.

STEP 6



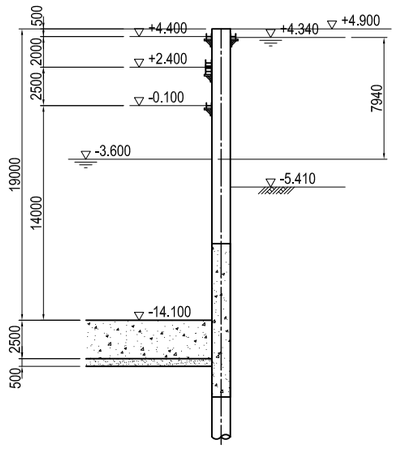
Placement of spread sand followed by casting undeawater bottom slab concrete.

STEP 7



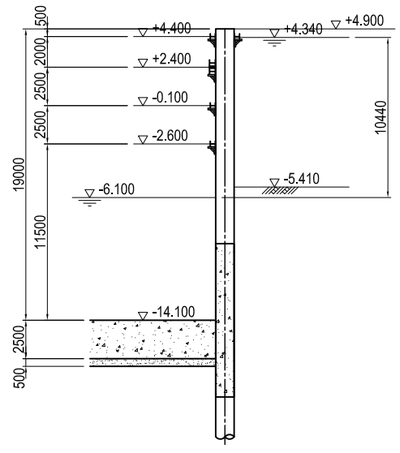
Draining the inside of cofferdam up to -1.100m level.

STEP 8



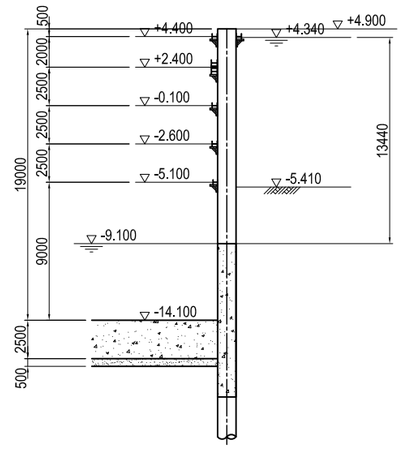
Draining the inside of cofferdam up to -3.600m level.
after the 3rd support Installation.

STEP 9



Draining the inside of cofferdam up to -6.100m level.
after the 4th support Installation.

STEP 10



Draining the inside of cofferdam up to -9.100m level.
after the 5th support Installation.

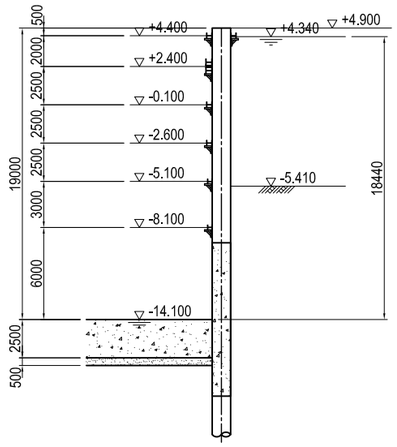
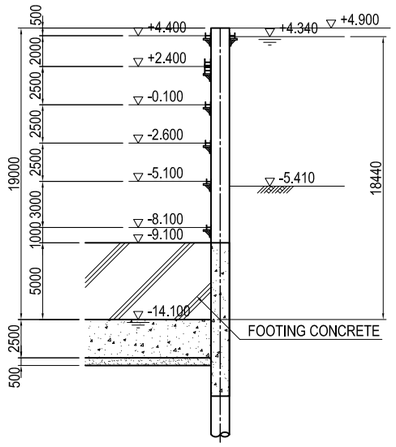
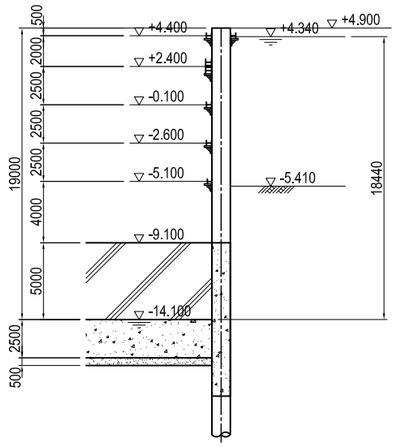
Note : This drawing can be used for reference only.

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	T. HAYAKAWA		27. Nov.2017
CHECKED BY	T. HAYAKAWA		28. Nov.2017
APPROVED BY	Y. SANO		29. Nov.2017

DRAWING TITLE	PACKAGE
(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P11 PIER（1）	1
	DWG No.
	P1-CS-2135

(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P11 PIER（2） S=1:400

STEP 11	STEP 12	STEP 13		
				
Draining the inside of cofferdam up to -14.100m level. after the 6th support Installation.	Casting of footing concrete.	The 6th support Removal.		

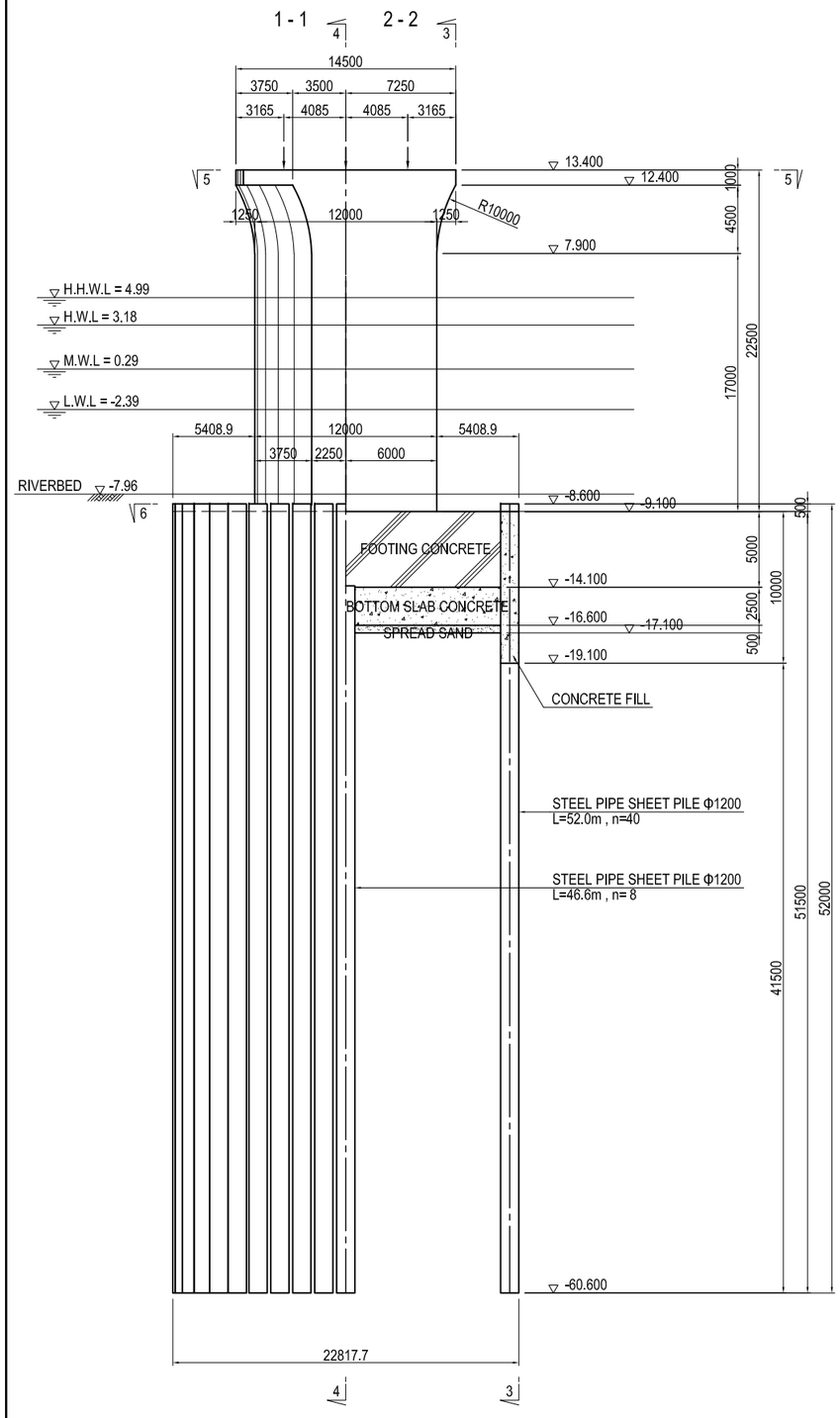
Note : This drawing can be used for reference only.

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	T. HAYAKAWA		27. Nov.2017
				CHECKED BY	T. HAYAKAWA		28. Nov.2017
				APPROVED BY	Y. SANO		29. Nov.2017

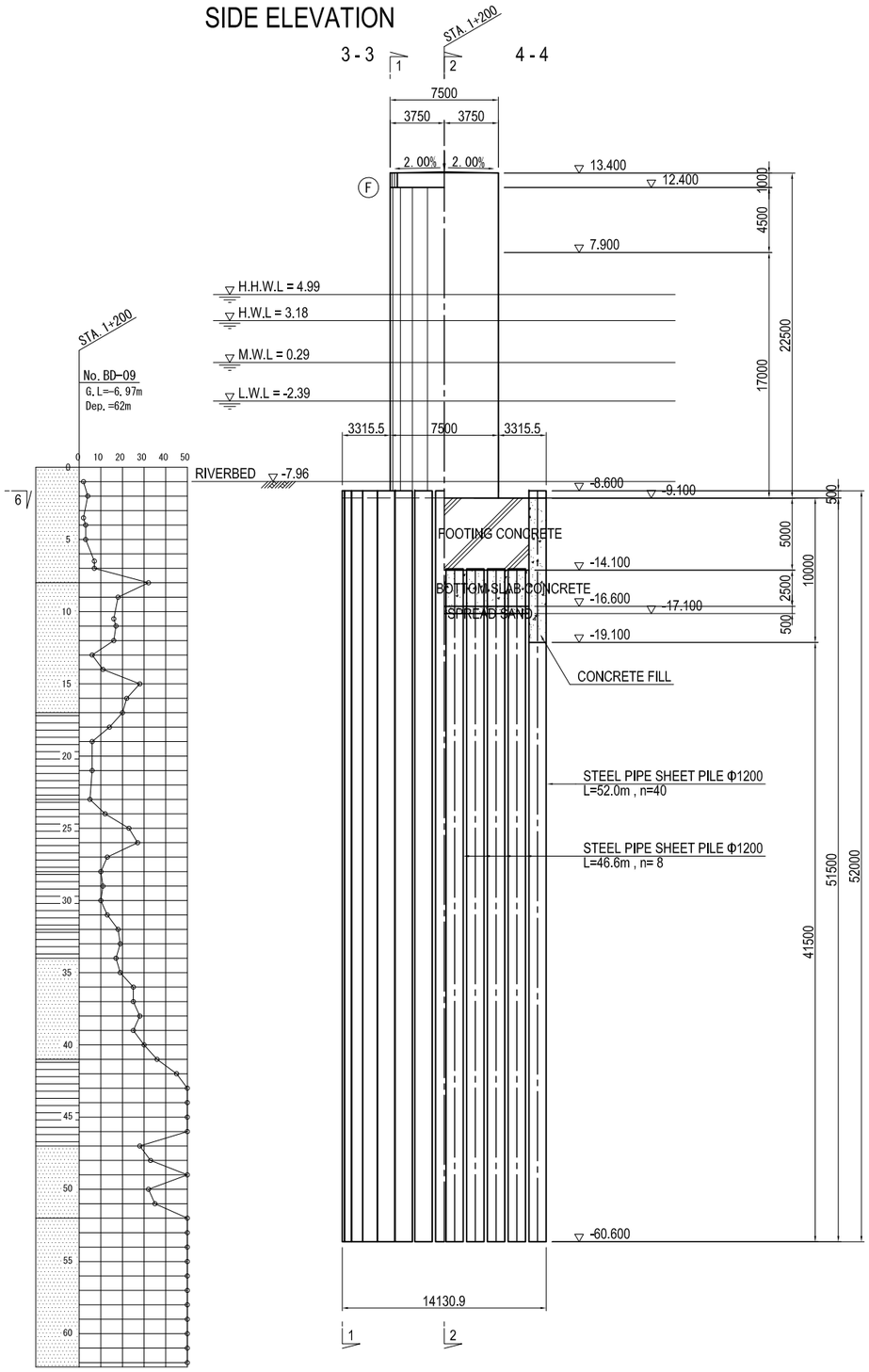
DRAWING TITLE	PACKAGE
(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P11 PIER（2）	1
	DWG No.
	P1-CS-2136

GENERAL ARRANGEMENT OF P12 PIER （1）S=1:400

FRONT ELEVATION

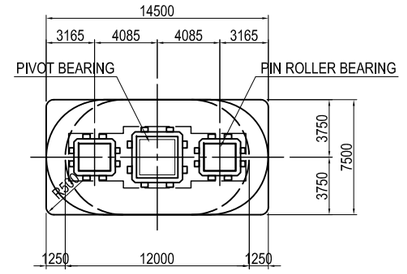


SIDE ELEVATION



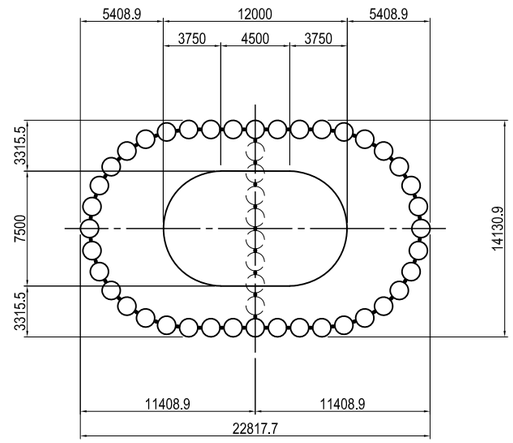
PLAN

5 - 5



PLAN

6 - 6



USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345
FOOTING	σck = 24 N/mm²	SD345

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.		

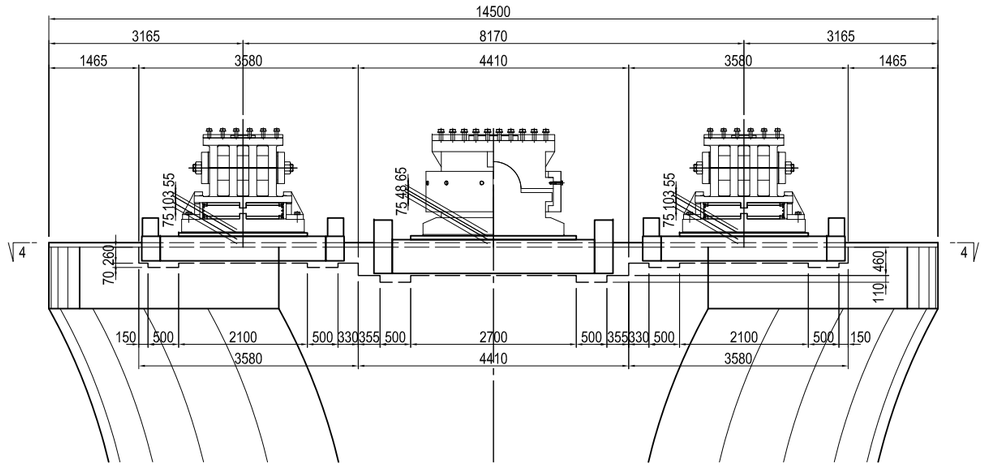
	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田智進	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017
APPROVED BY	Y. SANO	佐野 施一	29. Nov.2017

DRAWING TITLE	PACKAGE
GENERAL ARRANGEMENT OF P12 PIER（1）	1
	DWG No.
	P1-CS-2201

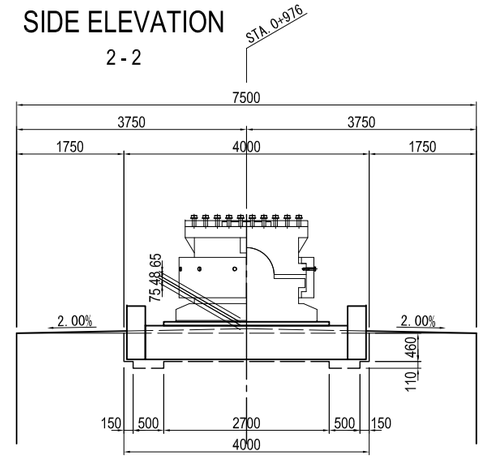
GENERAL ARRANGEMENT OF P12 PIER （2）S=1:100

DETAIL OF BEARING AND ANCHOR

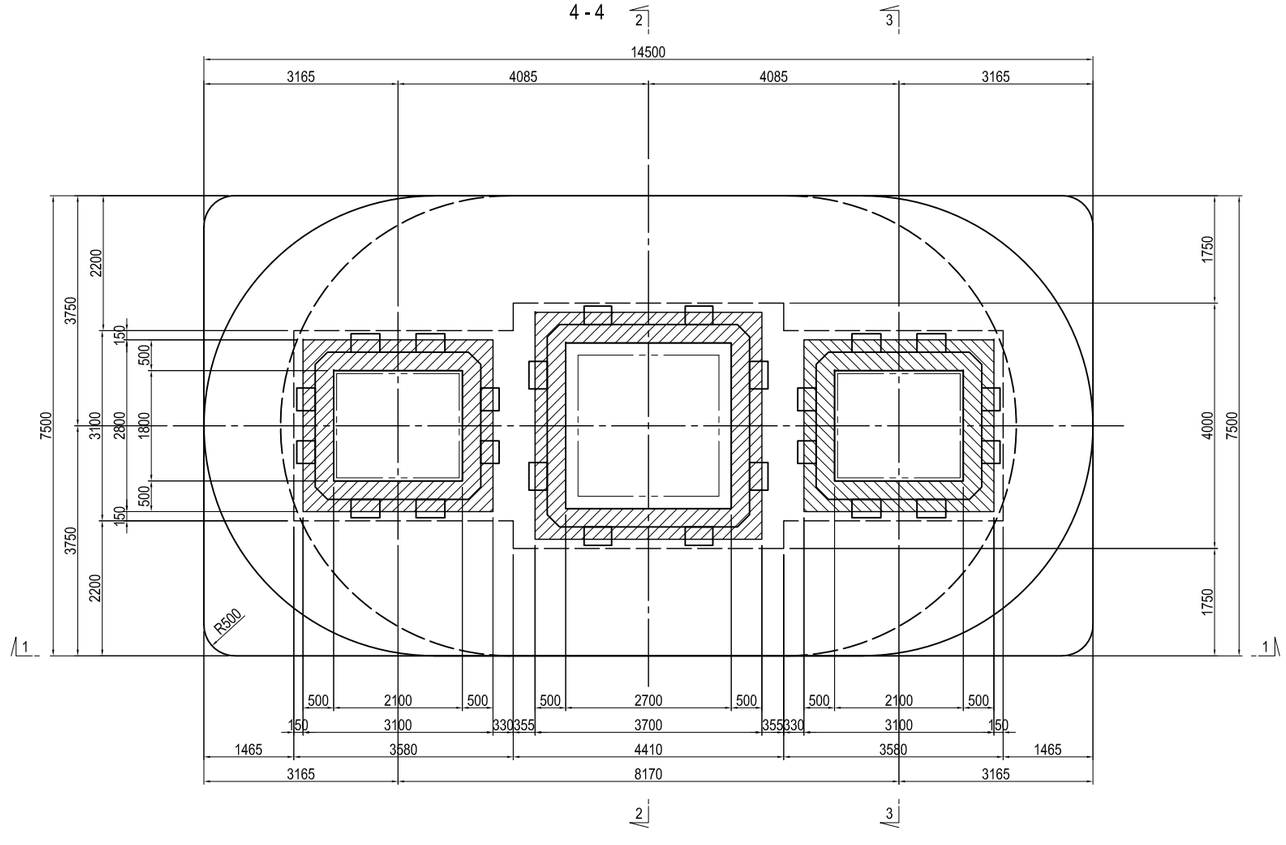
FRONT ELEVATION
1 - 1



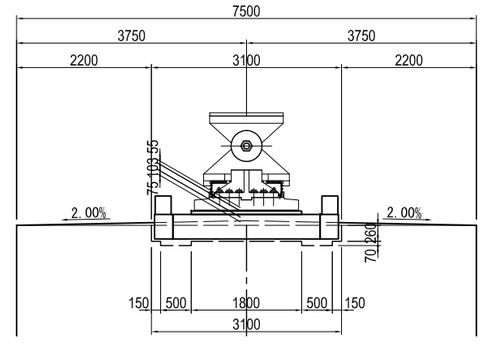
SIDE ELEVATION
2 - 2



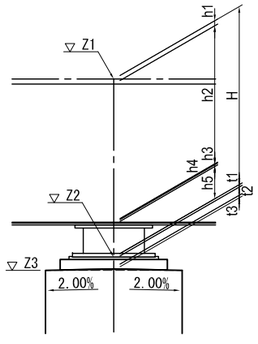
PLAN
4 - 4



3 - 3



		P12 PIER		
		SL2	CL	SR2
PROPOSED HEIGHT	Z1	17. 948	18. 030	17. 948
PAVEMENT	h1	0. 080	0. 080	0. 080
GIRDER	h2	2. 618	2. 700	2. 618
BOTTOM FLANGE	h3	0. 015	0. 015	0. 015
SOLE PLATE	h4	0. 052	0. 097	0. 052
BEARING	h5	1. 550	1. 550	1. 550
SUBTOTAL	H	4. 315	4. 442	4. 315
ELEVATION OF BEARING BOTTOM	Z2	13. 633	13. 588	13. 633
MORTAR	t1	0. 055	0. 065	0. 055
BEARING BASE	t2	0. 103	0. 048	0. 103
DRAINAGE INCLINE	t3	0. 075	0. 075	0. 075
ELEVATION OF PIER TOP	Z3	13. 400	13. 400	13. 400



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.		

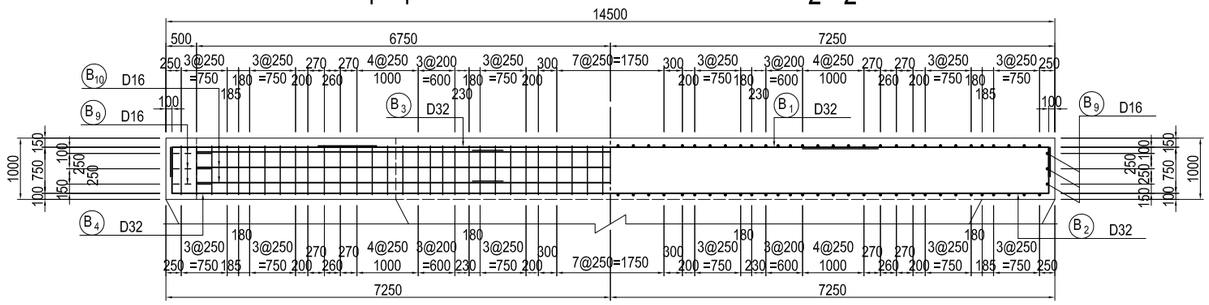
	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田智進	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017

DRAWING TITLE	PACKAGE
GENERAL ARRANGEMENT OF P12 PIER（2）	1
	DWG No.
	P1-CS-2202

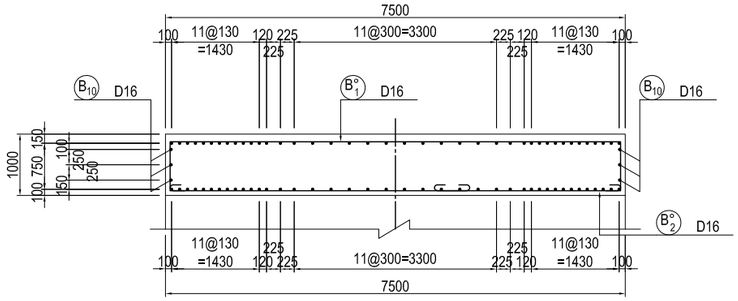
BAR ARRANGEMENT OF P12 PIER (1) S=1:100

BEAM

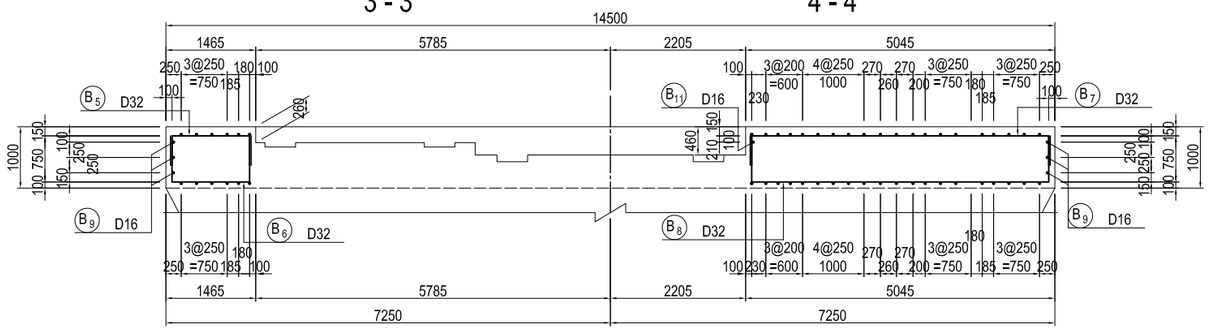
FRONT ELEVATION 1 - 1



SECTION 2 - 2



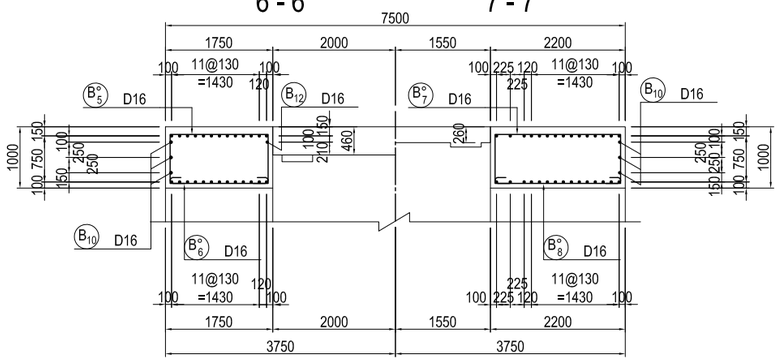
SECTION 3 - 3



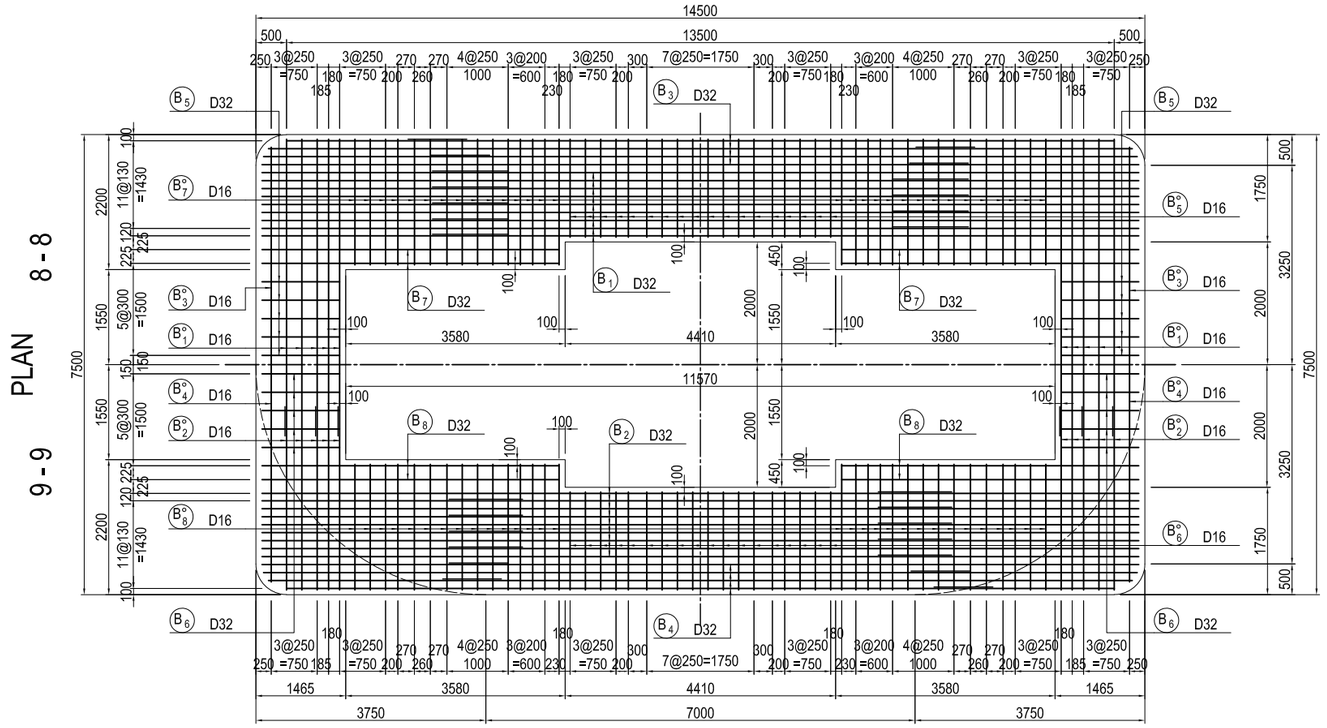
SECTION 4 - 4

SECTION 6 - 6

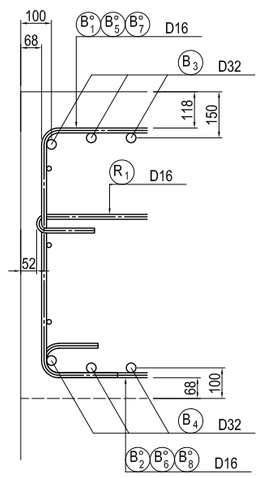
SECTION 7 - 7



PLAN 8 - 8 / 9 - 9

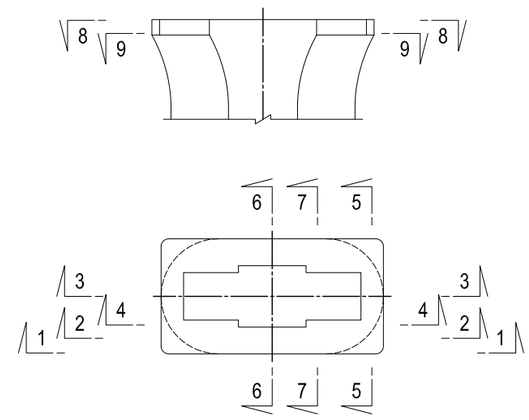


DETAIL OF BEAM S=1:20



LONGITUDINAL

MARKING DIAGRAM



USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

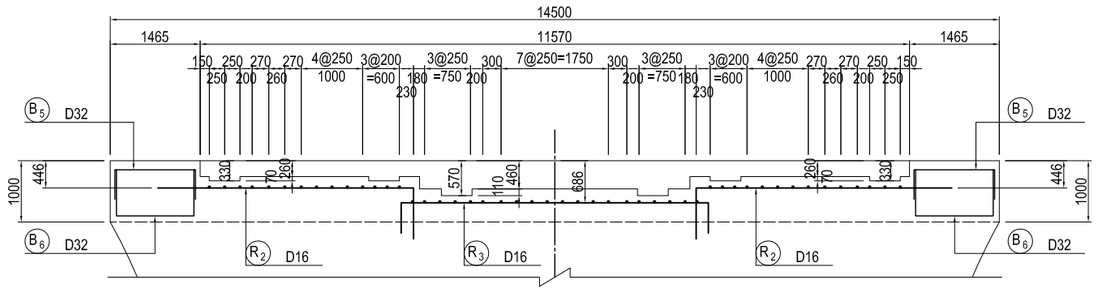
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P12 PIER (1)	1
CHECKED BY	T. HAYAKAWA	平川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2203

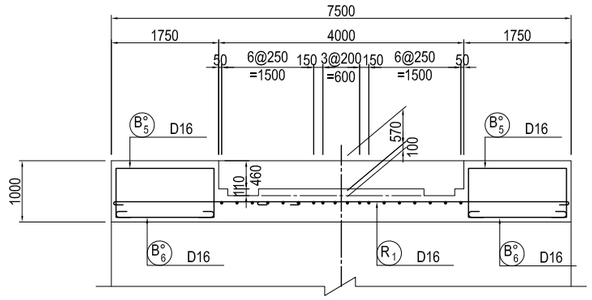
BAR ARRANGEMENT OF P12 PIER (2) S=1:100

BEAM

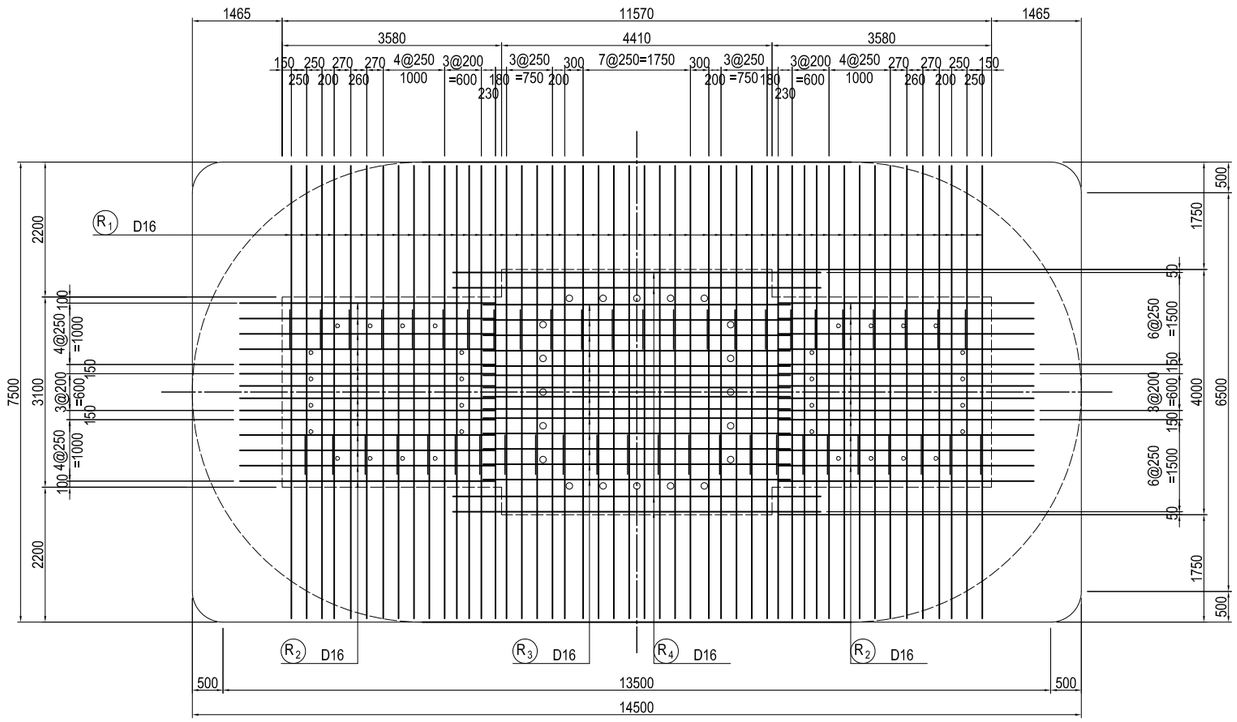
SECTION A - A



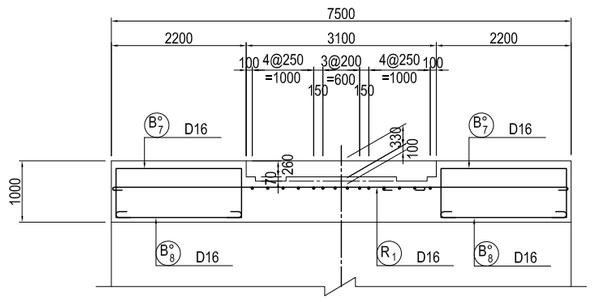
SECTION C - C

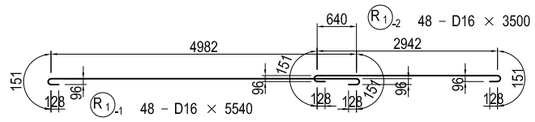


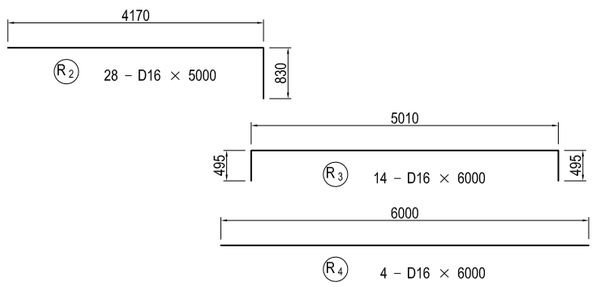
PLAN B - B



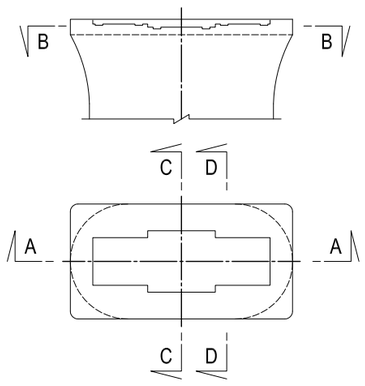
SECTION D - D







MARKING DIAGRAM



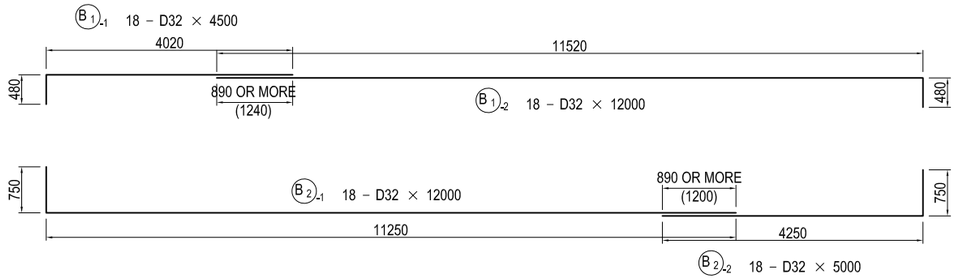
USE MATERIALS

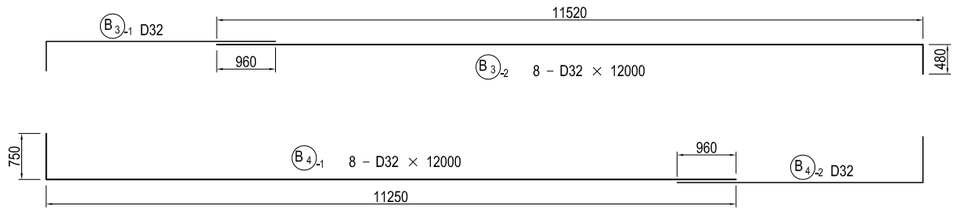
	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm 2	SD345

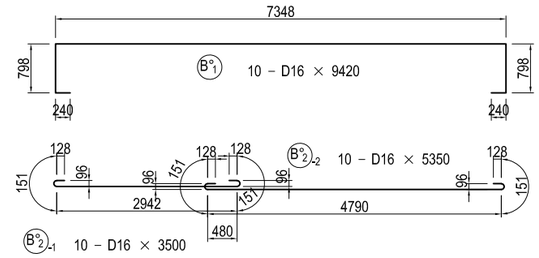
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田智雄	27. Nov.2017	BAR ARRANGEMENT OF P12 PIER (2)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2204

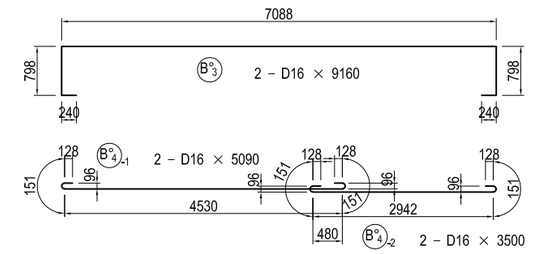
BAR ARRANGEMENT OF P12 PIER (3) S=1:100

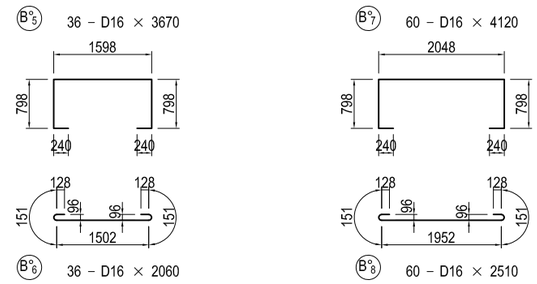
BEAM

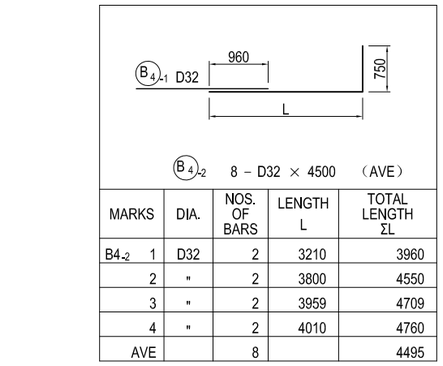






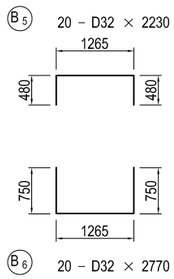


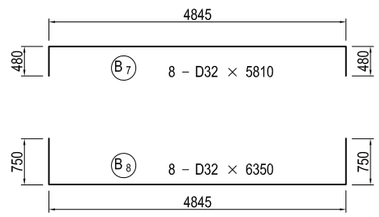


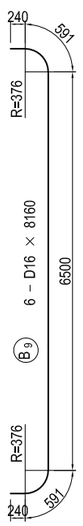


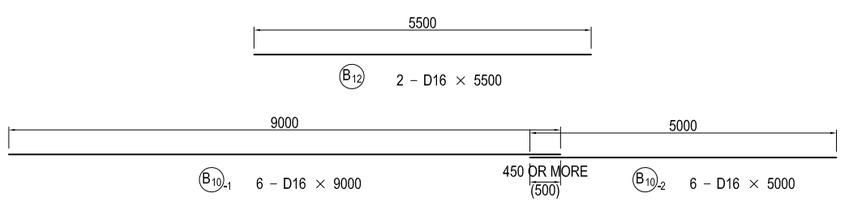
MARKS		DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
B3-1	1	D32	2	2940	3420
	2	"	2	3530	4010
	3	"	2	3689	4169
	4	"	2	3740	4220
AVE			8		3955

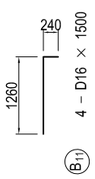
MARKS		DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
B4-2	1	D32	2	3210	3960
	2	"	2	3800	4550
	3	"	2	3959	4709
	4	"	2	4010	4760
AVE			8		4495











USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

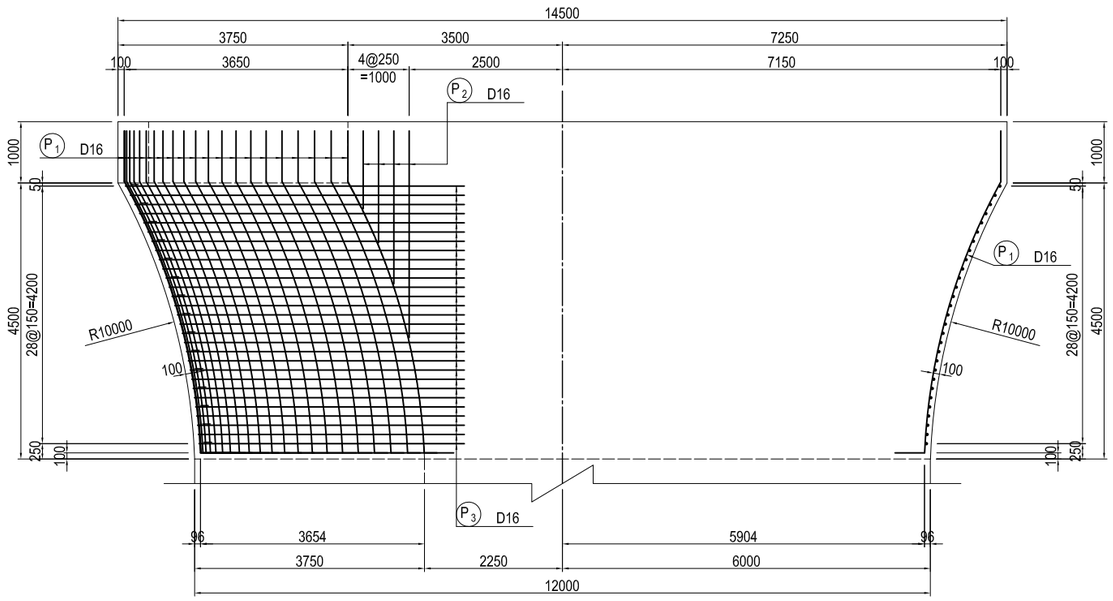
PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		
				NAME	SIGNATURE / DATE
				PREPARED BY	T.TOMODA / 27. Nov.2017
				CHECKED BY	T. HAYAKAWA / 28. Nov.2017
				APPROVED BY	Y. SANO / 29. Nov.2017
				DRAWING TITLE	BAR ARRANGEMENT OF P12 PIER (3)
				PACKAGE	1
				DWG No.	P1-CS-2205

BAR ARRANGEMENT OF P12 PIER (4) S=1:100

BEAM

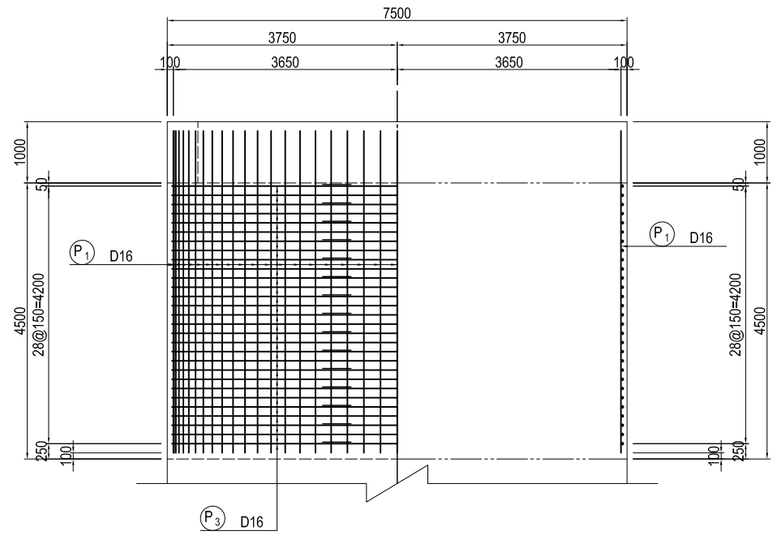
FRONT ELEVATION 1 - 1

SECTION 2 - 2



SIDE ELEVATION 3 - 3

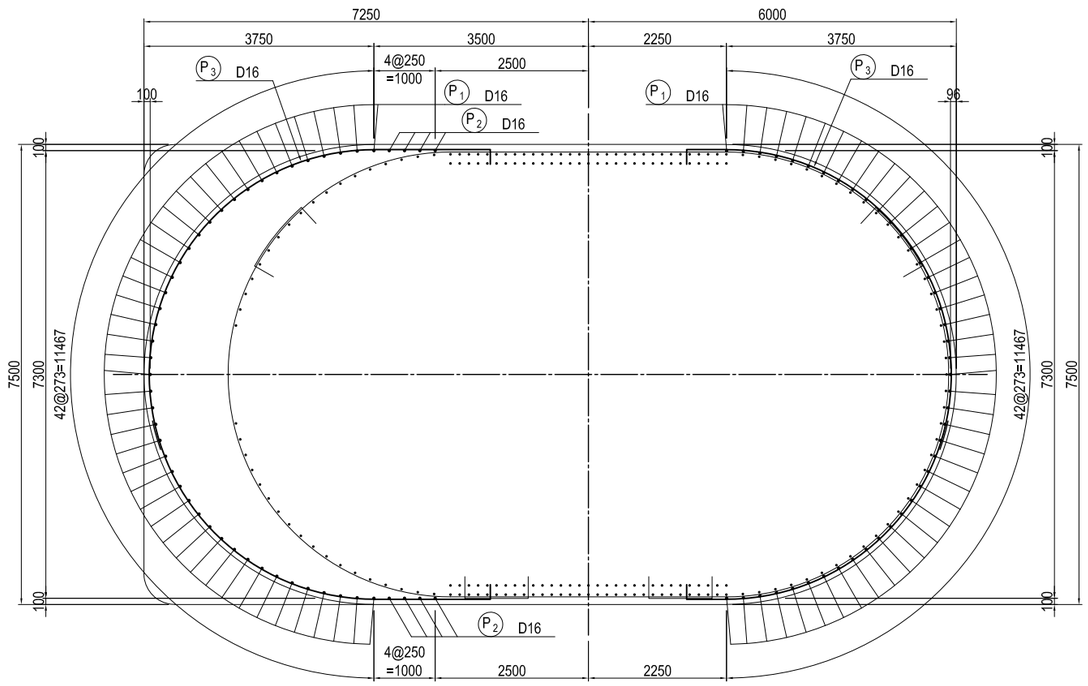
SECTION 4 - 4



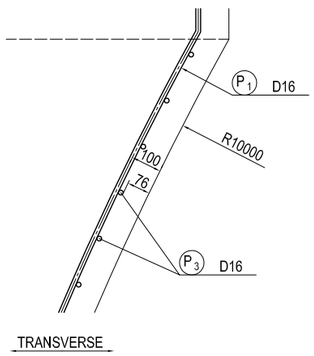
PLAN

5 - 5

6 - 6

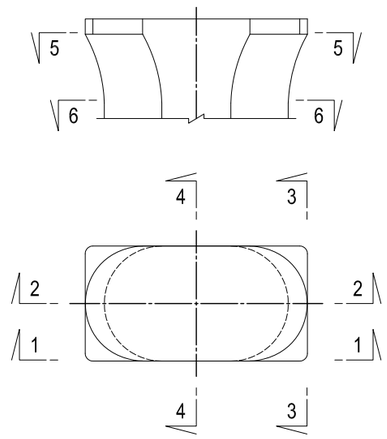


DETAIL OF WIDENED PART S=1:20



TRANSVERSE

MARKING DIAGRAM



USE MATERIALS

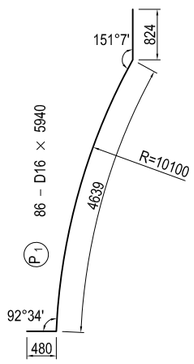
	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

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	T.TOMODA	友田智雄	27. Nov.2017	BAR ARRANGEMENT OF P12 PIER (4)	1
CHECKED BY	T. HAYAKAWA	平川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野 祐一	29. Nov.2017		P1-CS-2206

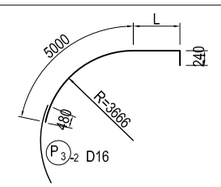
BAR ARRANGEMENT OF P12 PIER (5) S=1:100

BEAM



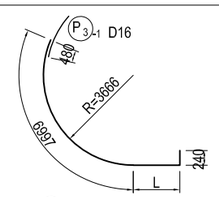
P2 16 – D16 × 2720 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
P2 1	D16	4	1271	1751
2	"	4	1826	2306
3	"	4	2494	2974
4	"	4	3371	3851
AVE		16		2721



P3-1 58 – D16 × 6340 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
P3-1 1	D16	2	1859	7099
2	"	2	1779	7019
3	"	2	1703	6943
4	"	2	1629	6869
5	"	2	1559	6799
6	"	2	1492	6732
7	"	2	1428	6668
8	"	2	1366	6606
9	"	2	1307	6547
10	"	2	1251	6491
11	"	2	1198	6438
12	"	2	1147	6387
13	"	2	1099	6339
14	"	2	1054	6294
15	"	2	1011	6251
16	"	2	970	6210
17	"	2	932	6172
18	"	2	897	6137
19	"	2	863	6103
20	"	2	833	6073
21	"	2	804	6044
22	"	2	778	6018
23	"	2	754	5994
24	"	2	733	5973
25	"	2	714	5954
26	"	2	697	5937
27	"	2	682	5922
28	"	2	670	5910
29	"	2	660	5900
AVE		58		6339



P3-2 58 – D16 × 8340 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
P3-2 1	D16	2	1859	9096
2	"	2	1779	9016
3	"	2	1703	8940
4	"	2	1629	8866
5	"	2	1559	8796
6	"	2	1492	8729
7	"	2	1428	8665
8	"	2	1366	8603
9	"	2	1307	8544
10	"	2	1251	8488
11	"	2	1198	8435
12	"	2	1147	8384
13	"	2	1099	8336
14	"	2	1054	8291
15	"	2	1011	8248
16	"	2	970	8207
17	"	2	932	8169
18	"	2	897	8134
19	"	2	863	8100
20	"	2	833	8070
21	"	2	804	8041
22	"	2	778	8015
23	"	2	754	7991
24	"	2	733	7970
25	"	2	714	7951
26	"	2	697	7934
27	"	2	682	7919
28	"	2	670	7907
29	"	2	660	7897
AVE		58		8336

USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm^2	SD345

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
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.

	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017

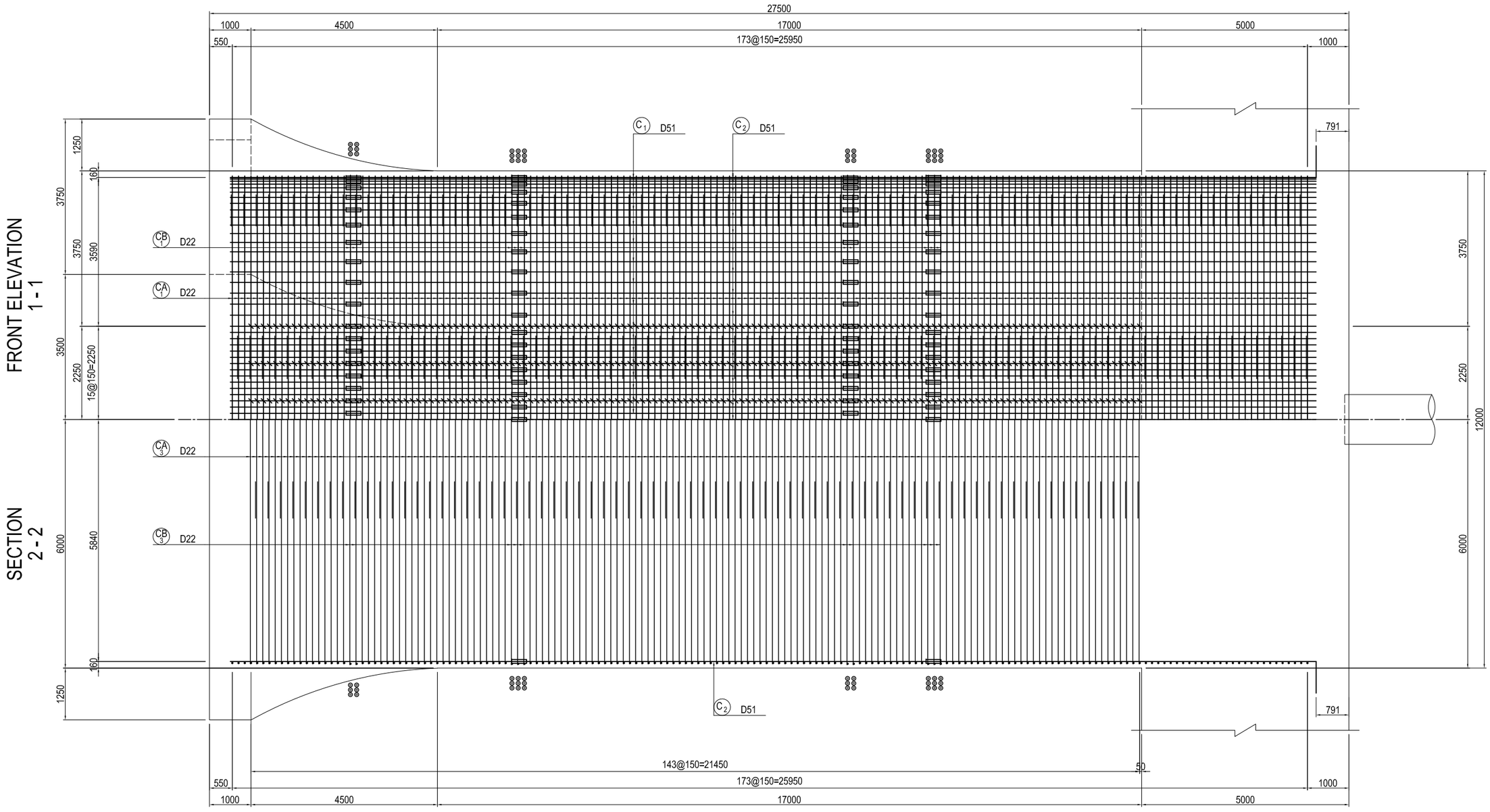
DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF P12 PIER (5)	1
	DWG No.
	P1-CS-2207

BAR ARRANGEMENT OF P12 PIER (6) S=1:100

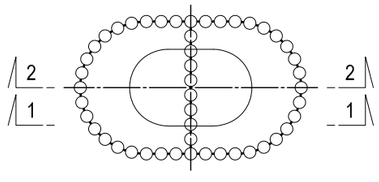
COLUMN

FRONT ELEVATION
1 - 1

SECTION
2 - 2



MARKING DIAGRAM



Notes) 1. ∞∞ : This mark indicates hoop arranged in the location of mechanical joint.
2. —▭— : This mark indicates a mechanical joint.

USE MATERIALS

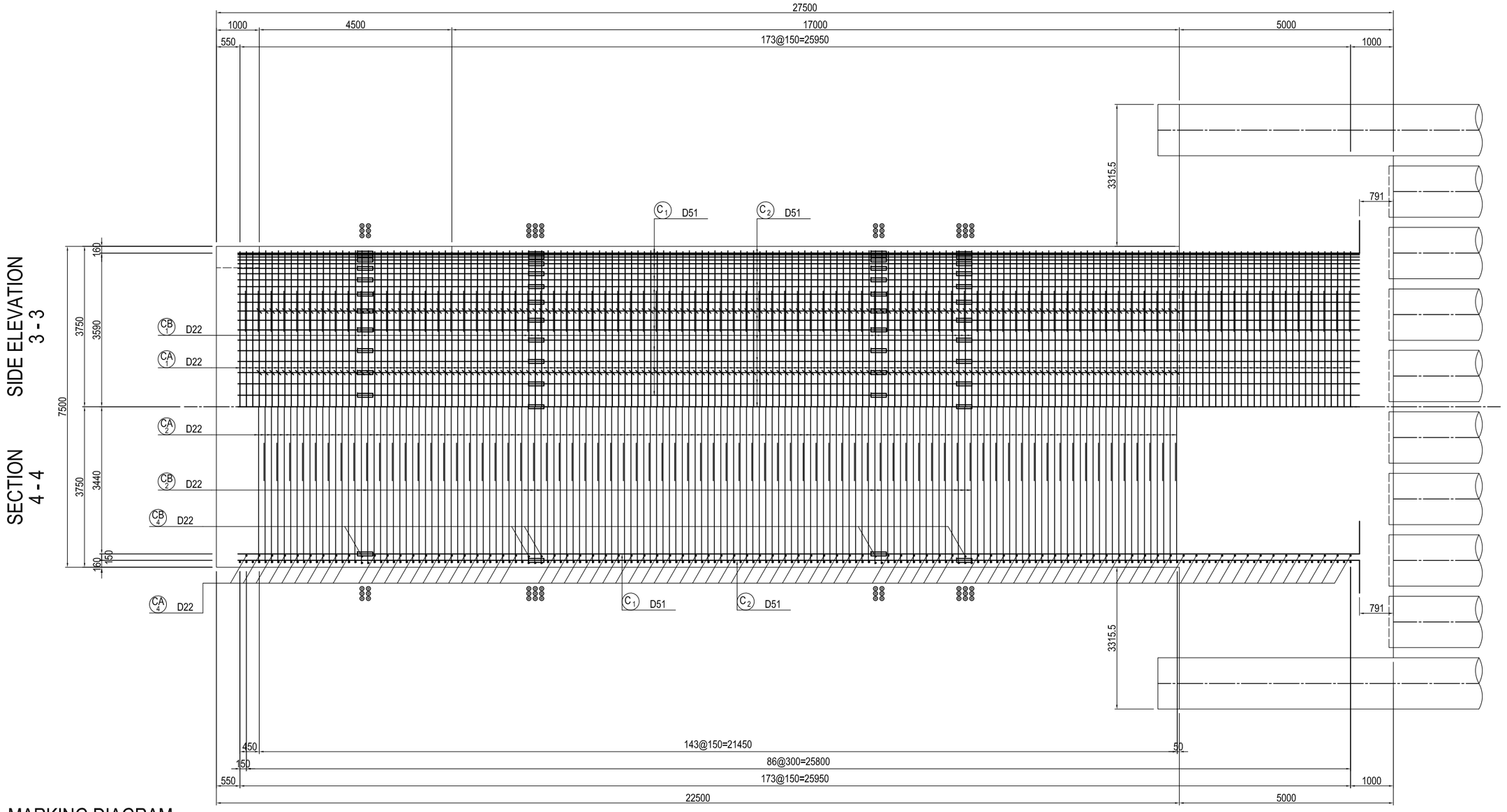
	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm^2	SD345

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
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.		

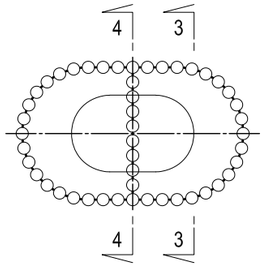
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田智進	27. Nov.2017	BAR ARRANGEMENT OF P12 PIER (6)	1
CHECKED BY	T. HAYAKAWA	早川知子	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2208

BAR ARRANGEMENT OF P12 PIER (7) S=1:100

COLUMN



MARKING DIAGRAM



Notes) 1. ∞∞ : This mark indicates hoop arranged in the location of mechanical joint.
2. —▭— : This mark indicates a mechanical joint.

USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm^2	SD345

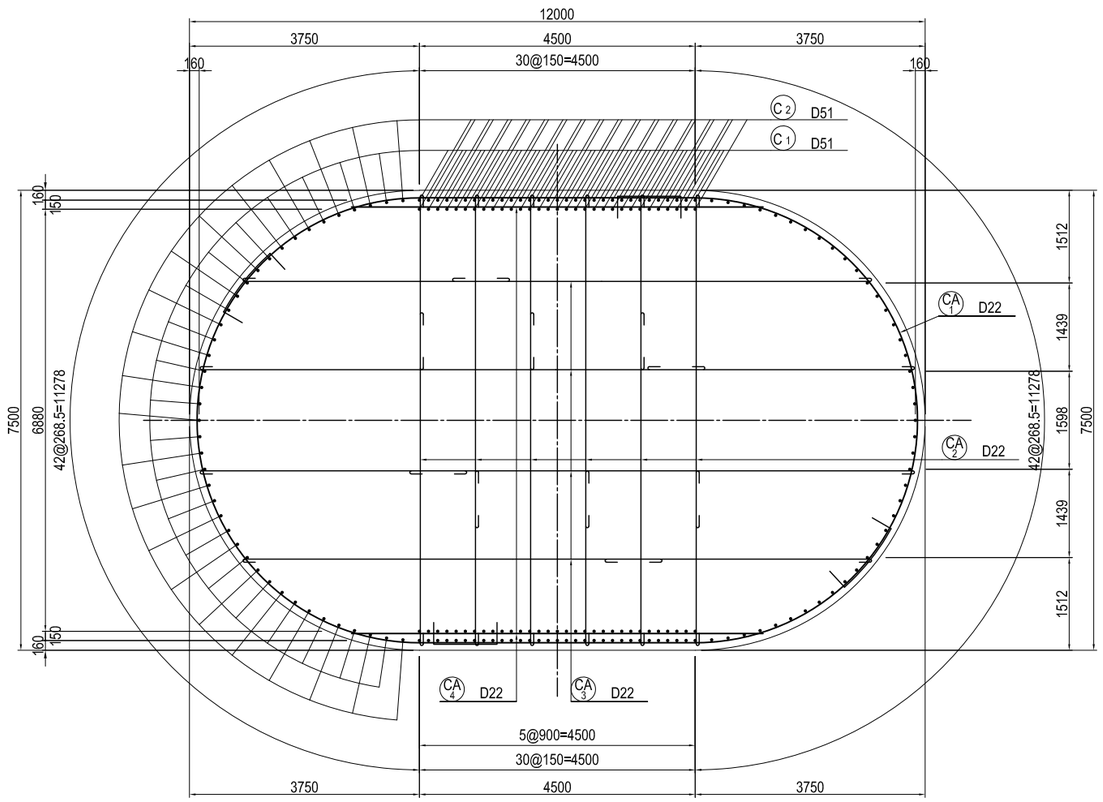
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P12 PIER (7)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2209

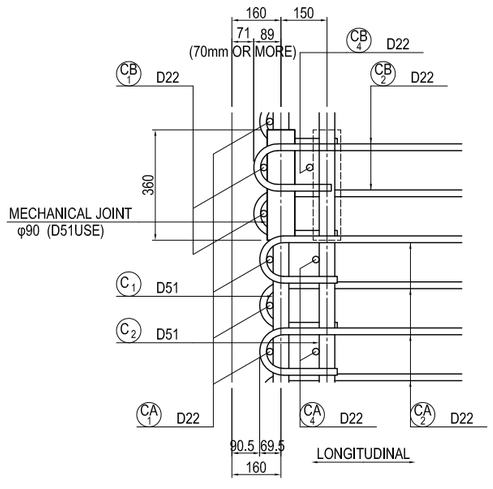
BAR ARRANGEMENT OF P12 PIER (8) S=1:100

COLUMN

PLAN 5 - 5

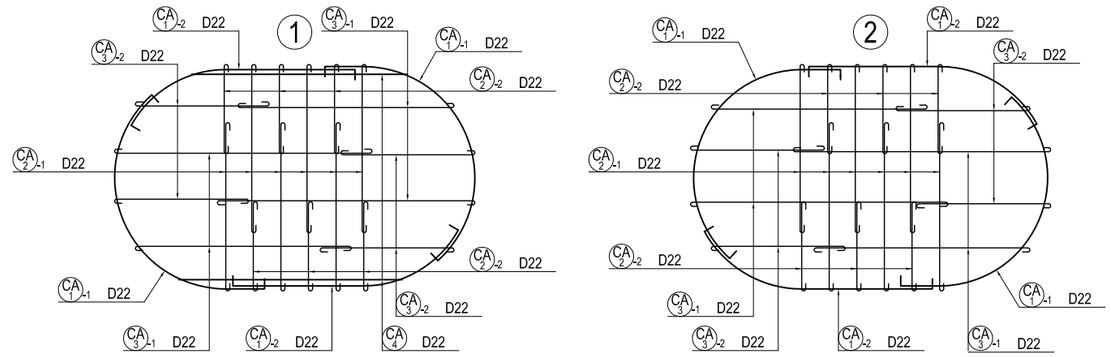


DETAIL OF COLUMN S=1:20



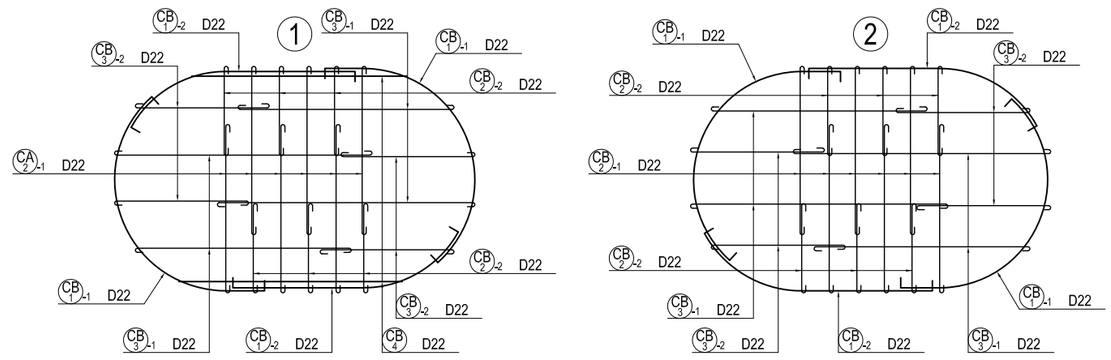
ASSEMBLY DRAWING OF HOOP (c.t.c. 150)

【STANDARD PART】



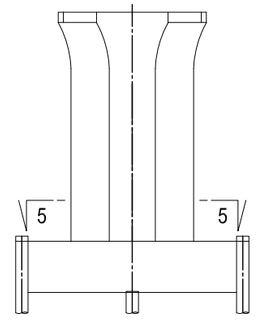
Note) (CA4) : c.t.c. 300

【MECHANICAL JOINT PART】



Note) (CB4) : c.t.c. 300

MARKING DIAGRAM



USE MATERIALS

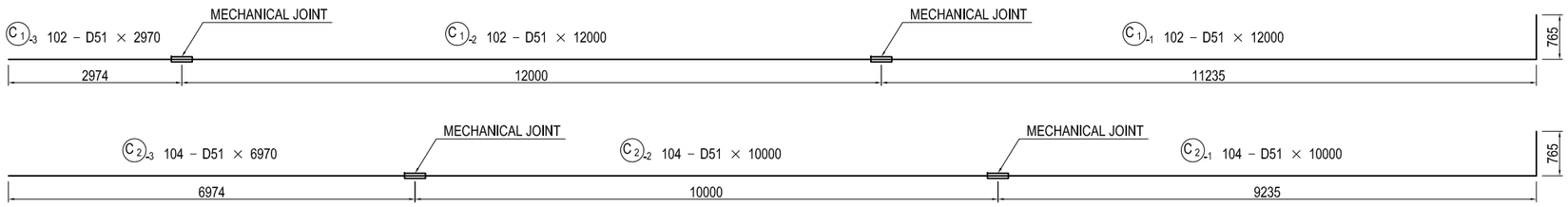
	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

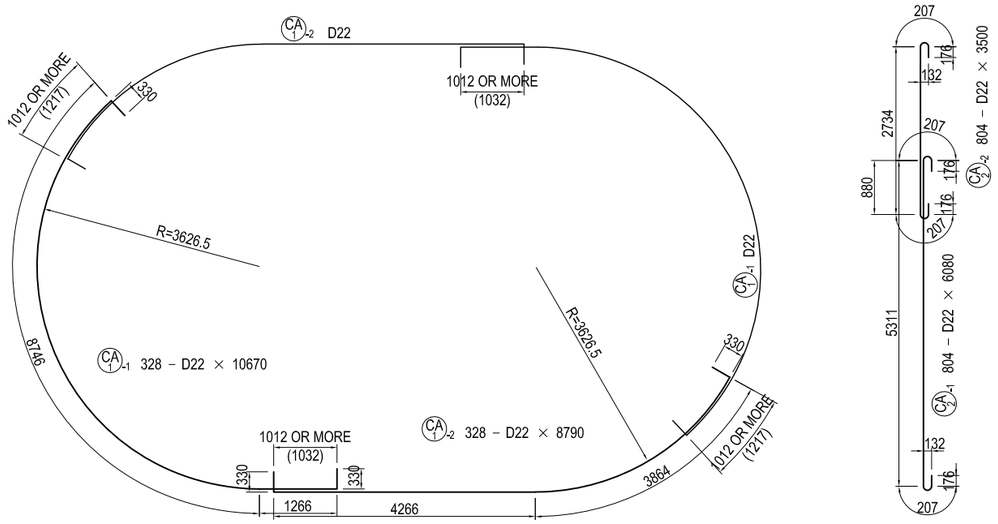
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

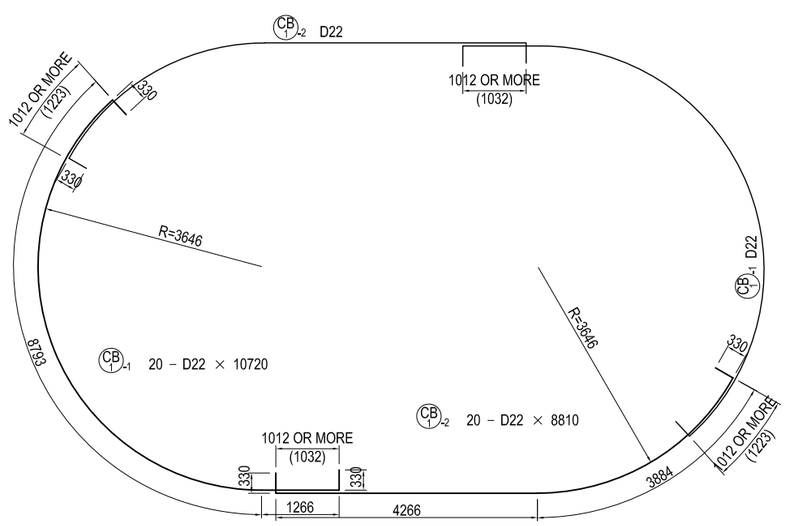
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P12 PIER (8)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野裕一	29. Nov.2017		P1-CS-2210

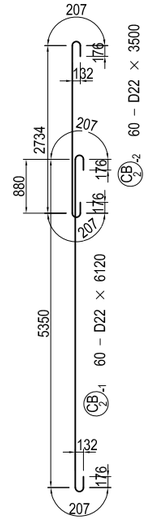
BAR ARRANGEMENT OF P12 PIER (9) S=1:100

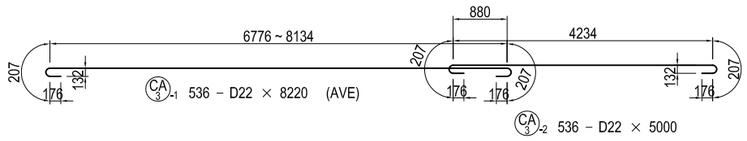
COLUMN

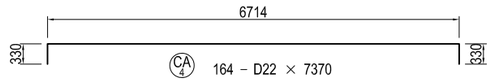


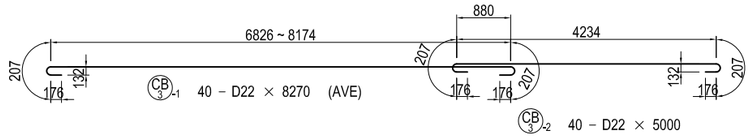


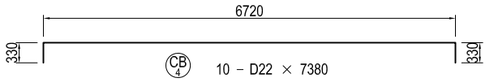




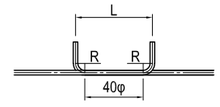








LAP LENGTH LIST OF HOOP



DIA.	R	LAP LENGTH (40φ)	L
D13	39	520	598
D16	48	640	736
D19	57	760	874
D22	66	880	1012
D25	75	1000	1150
D29	87	1160	1334
D32	96	1280	1472

Note) ⊣⊢ : This mark indicates a mechanical joint.

USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm²	SD345

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
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.

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P12 PIER (9)	1
CHECKED BY	T. HAYAKAWA	早川和男	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017		P1-CS-2211

BAR ARRANGEMENT OF P12 PIER (10) NOT TO SCALE

BAR SCHEDULE

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
B 1-1	D32	4500	18	6.23	28.04	505	
1-2	"	12000	18	"	74.76	1346	
2-1	"	12000	18	"	74.76	1346	
2-2	"	5000	18	"	31.15	561	
3-1	"	3960	8	"	24.67	197	(AVE)
3-2	"	12000	8	"	74.76	598	
4-1	"	12000	8	"	74.76	598	
4-2	"	4500	8	"	28.04	224	(AVE)
5	"	2230	20	"	13.89	278	
6	"	2770	20	"	17.26	345	
7	"	5810	8	"	36.20	290	
8	"	6350	8	"	39.56	316	
9	D16	8160	6	1.56	12.73	76	
10-1	"	9000	6	"	14.04	84	
10-2	"	5000	6	"	7.80	47	"
11	"	1500	4	"	2.34	9	
12	"	5500	2	"	8.58	17	
					SUBTOTAL	6837 kg	
B° 1	D16	9420	10	1.56	14.70	147	
2-1	"	3500	10	"	5.46	55	
2-2	"	5350	10	"	8.35	84	"
3	"	9160	2	"	14.29	29	
4-1	"	5090	2	"	7.94	16	
4-2	"	3500	2	"	5.46	11	"
5	"	3670	36	"	5.73	206	
6	"	2060	36	"	3.21	116	
7	"	4120	60	"	6.43	386	
8	"	2510	60	"	3.92	235	
					SUBTOTAL	1285 kg	
R 1-1	D16	5540	48	1.56	8.64	415	
1-2	"	3500	48	"	5.46	262	"
2	"	5000	28	"	7.80	218	
3	"	6000	14	"	9.36	131	
4	"	6000	4	"	9.36	37	
					SUBTOTAL	1063 kg	
P 1	D16	5940	86	1.56	9.27	797	
2	"	2720	16	"	4.24	68	(AVE)
3-1	"	6340	58	"	9.89	574	(AVE)
3-2	"	8340	58	"	13.01	755	(AVE)
					SUBTOTAL	2194 kg	

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
C 1-1	D51	12000	102	15.9	190.80	19462	(102)
1-2	"	12000	102	"	190.80	19462	(102)
1-3	"	2970	102	"	47.22	4816	
2-1	"	10000	104	"	159.00	16536	(104)
2-2	"	10000	104	"	159.00	16536	(104)
2-3	"	6970	104	"	110.82	11525	
					SUBTOTAL	88337 kg	
CA 1-1	D22	10670	328	3.04	32.44	10640	
1-2	"	8790	328	"	26.72	8764	
2-1	"	6080	804	"	18.48	14858	
2-2	"	3500	804	"	10.64	8555	"
3-1	"	8220	536	"	24.99	13395	(AVE)
3-2	"	5000	536	"	15.20	8147	"
4	"	7370	164	"	22.40	3674	
					SUBTOTAL	68033 kg	
CB 1-1	D22	10720	20	3.04	32.59	652	
1-2	"	8810	20	"	26.78	536	
2-1	"	6120	60	"	18.60	1116	
2-2	"	3500	60	"	10.64	638	"
3-1	"	8270	40	"	25.14	1006	(AVE)
3-2	"	5000	40	"	15.20	608	"
4	"	7380	10	"	22.44	224	
					SUBTOTAL	4780 kg	

(MECHANICAL JOINT)

D51	88337	kg	(412)
D32	6604	"	
D22	72813	"	
D16	4775	"	
TOTAL	172529	kg	(412)

USE MATERIALS

	CONCRETE	BAR
BEAM・COLUMN	σck = 30 N/mm 2	SD345

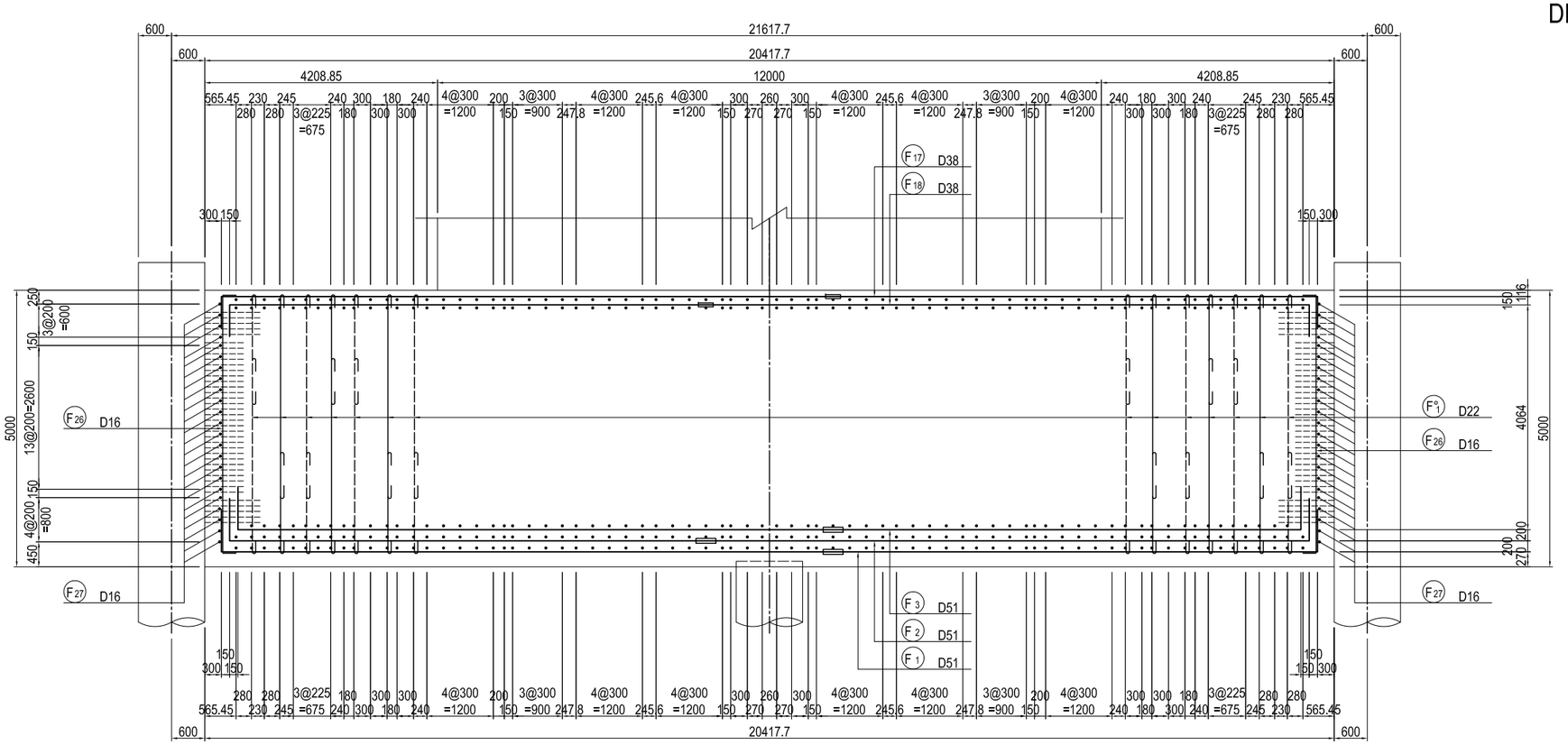
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田智進	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017
APPROVED BY	Y. SANO	佐野 施一	29. Nov.2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF P12 PIER (10)	1
	DWG No.
	P1-CS-2212

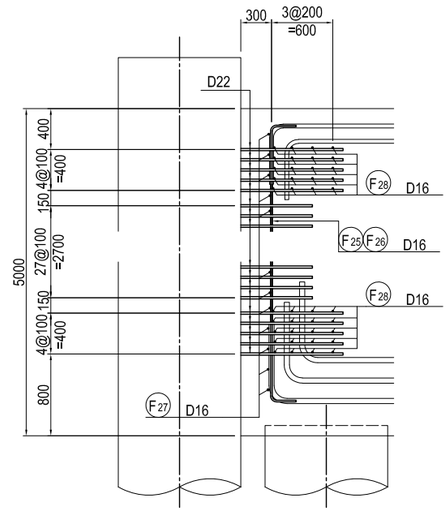
BAR ARRANGEMENT OF P12 FOOTING (1) S=1:100

SECTION 1 - 1

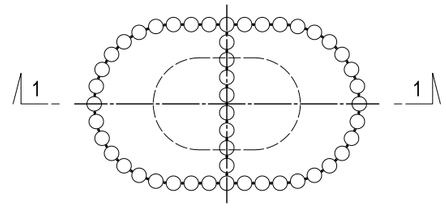


DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING

S=1:60



MARKING DIAGRAM



USE MATERIALS

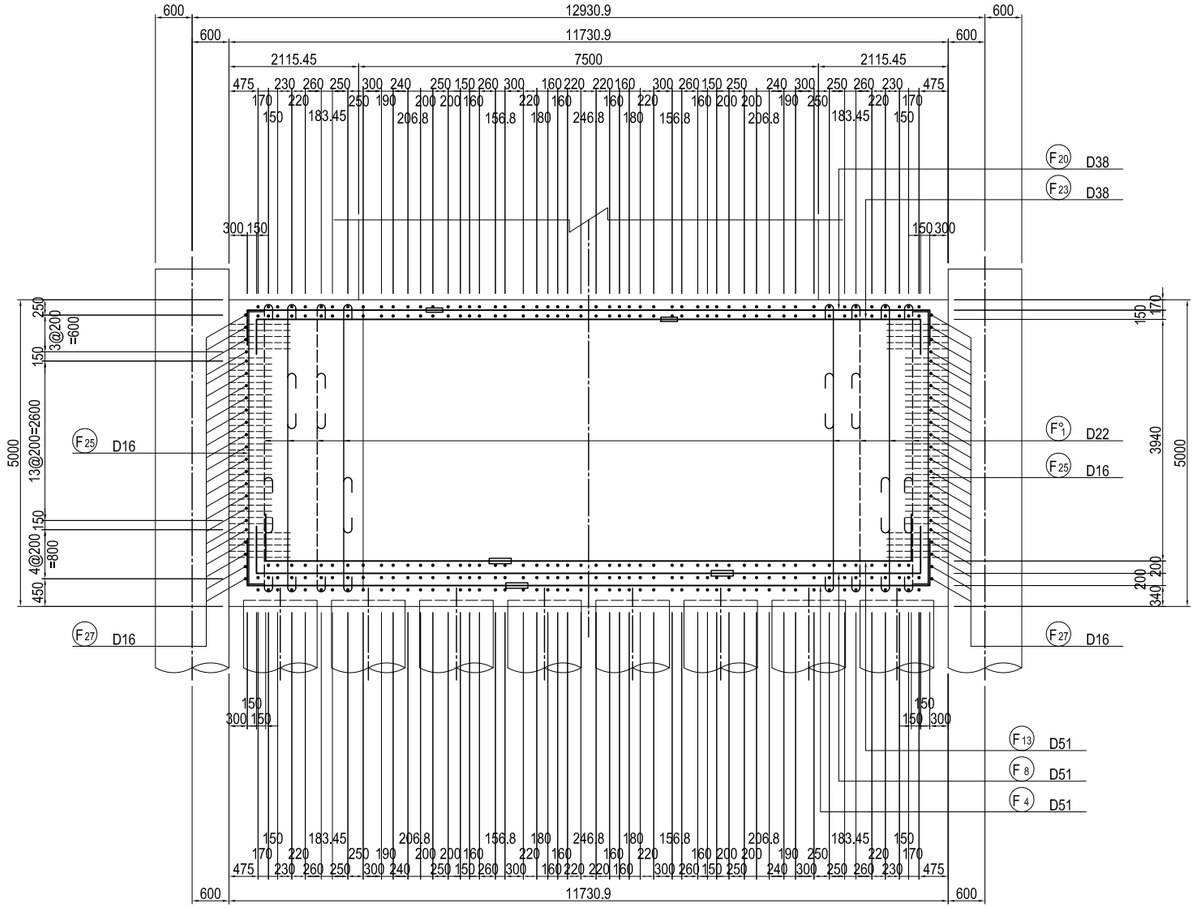
	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

Note) —⊟— : MECHANICAL JOINT

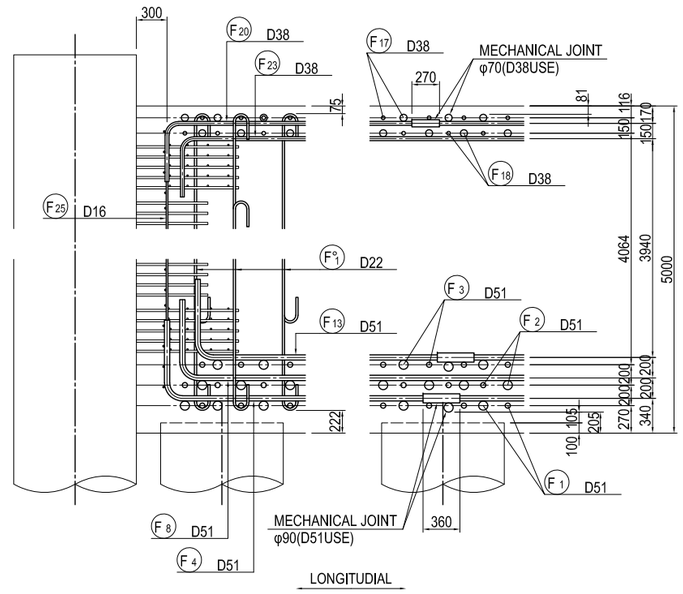
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P12 FOOTING (1)	1
				CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
				APPROVED BY	Y. SANO	佐野裕一	29. Nov.2017		P1-CS-2213

BAR ARRANGEMENT OF P12 FOOTING (2) S=1:100

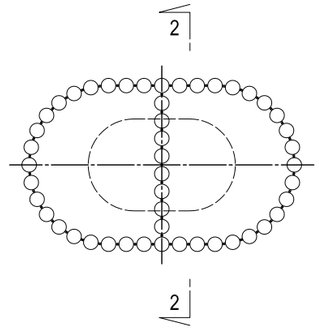
SECTION 2 - 2



DETAIL OF PILE CAP S=1:60



MARKING DIAGRAM



USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

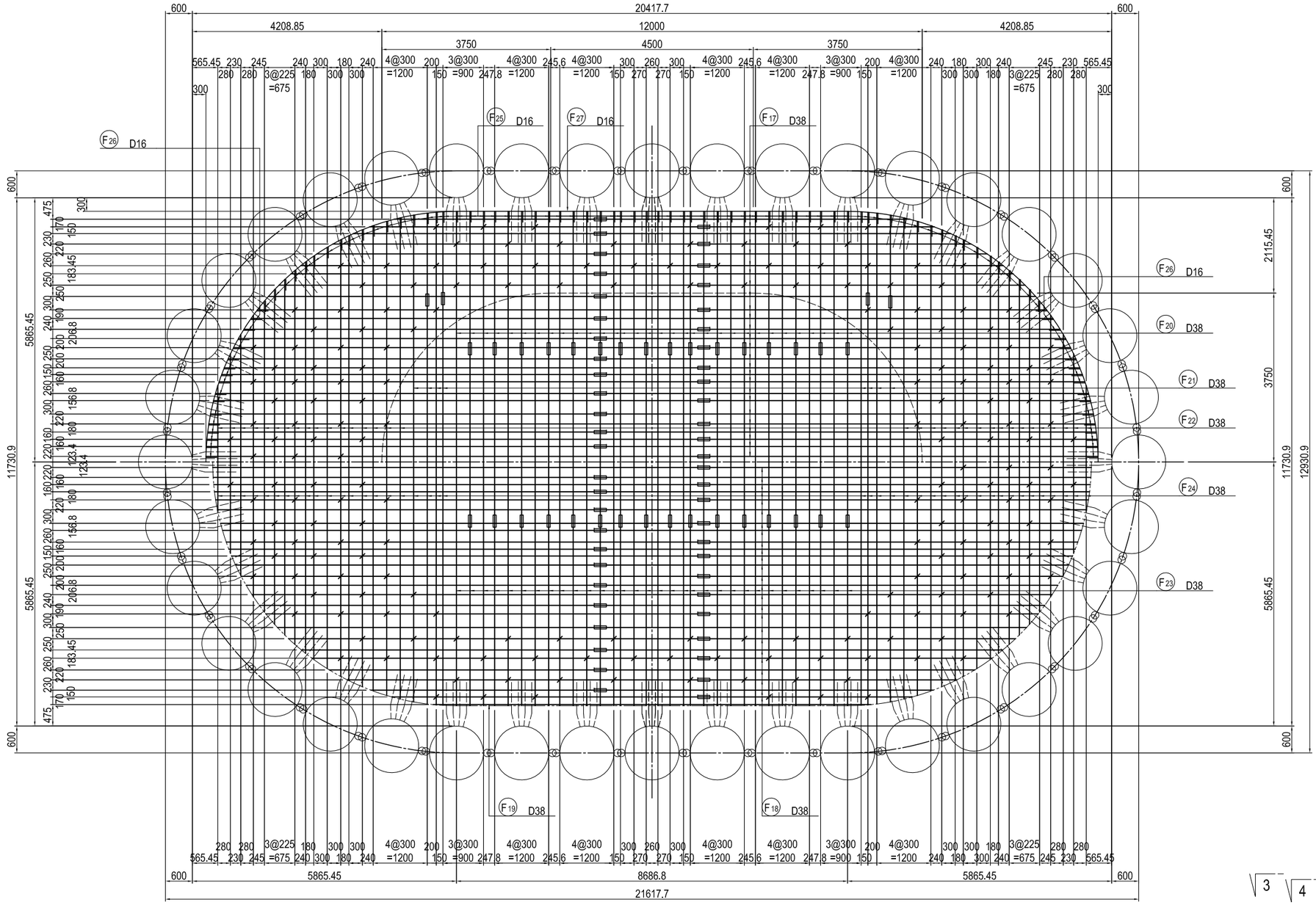
Note) —=— : MECHANICAL JOINT

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.		
				PREPARED BY: T.TOMODA — 27. Nov.2017	DRAWING TITLE: BAR ARRANGEMENT OF P12 FOOTING (2)
				CHECKED BY: T. HAYAKAWA — 28. Nov.2017	PACKAGE: 1
				APPROVED BY: Y. SANO — 29. Nov.2017	DWG No.: P1-CS-2214

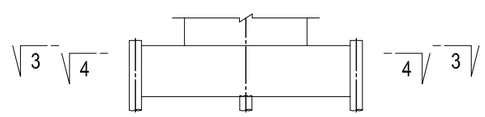
BAR ARRANGEMENT OF P12 FOOTING (3) S=1:100

PLAN 3 - 3

PLAN 4 - 4



MARKING DIAGRAM



USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

Note) : MECHANICAL JOINT

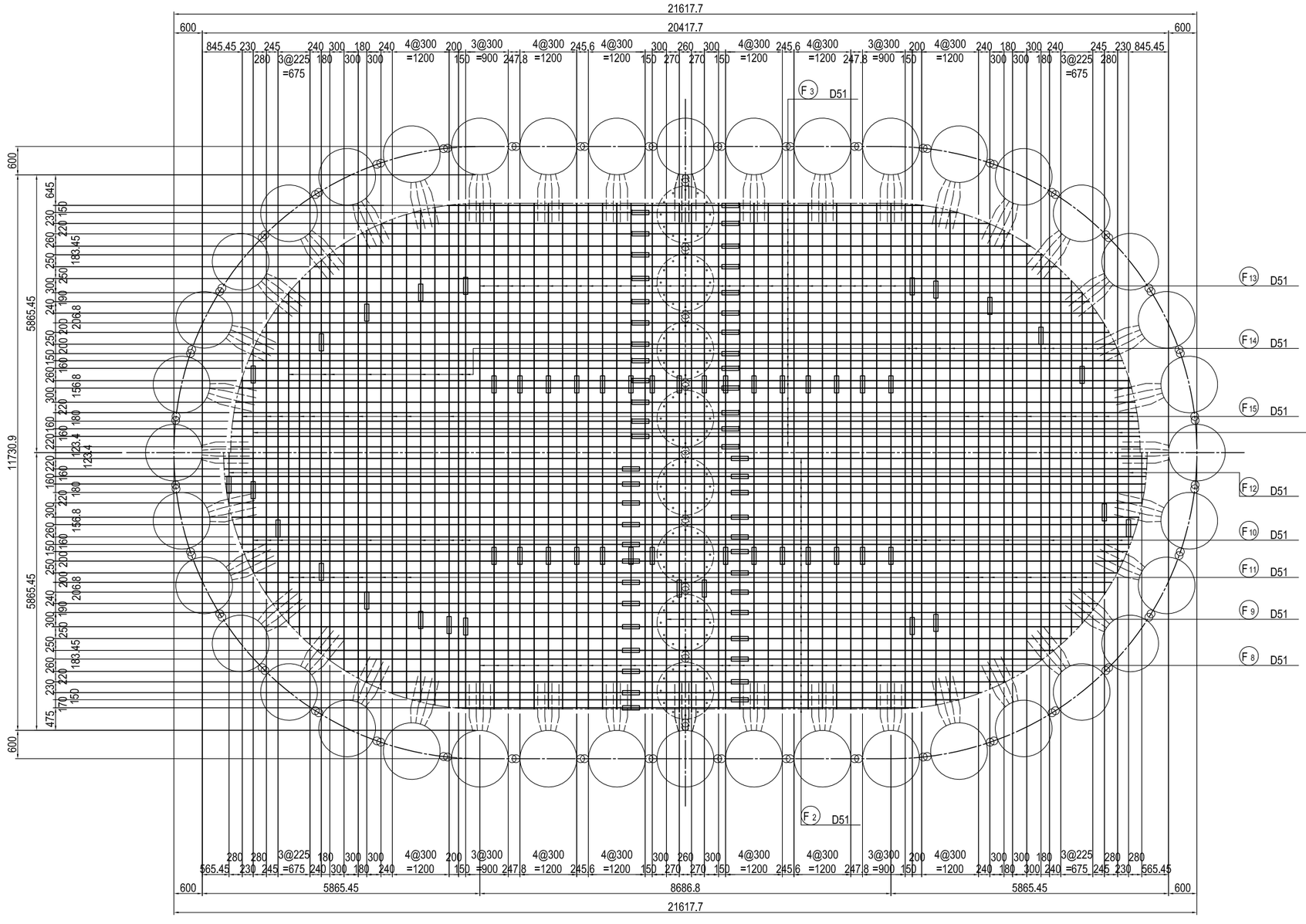
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田智雄	27. Nov.2017	BAR ARRANGEMENT OF P12 FOOTING (3)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2215

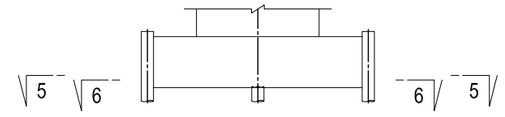
BAR ARRANGEMENT OF P12 FOOTING (4) S=1:100

PLAN
5 - 5

PLAN
6 - 6



MARKING DIAGRAM



USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

Note) —=— : MECHANICAL JOINT

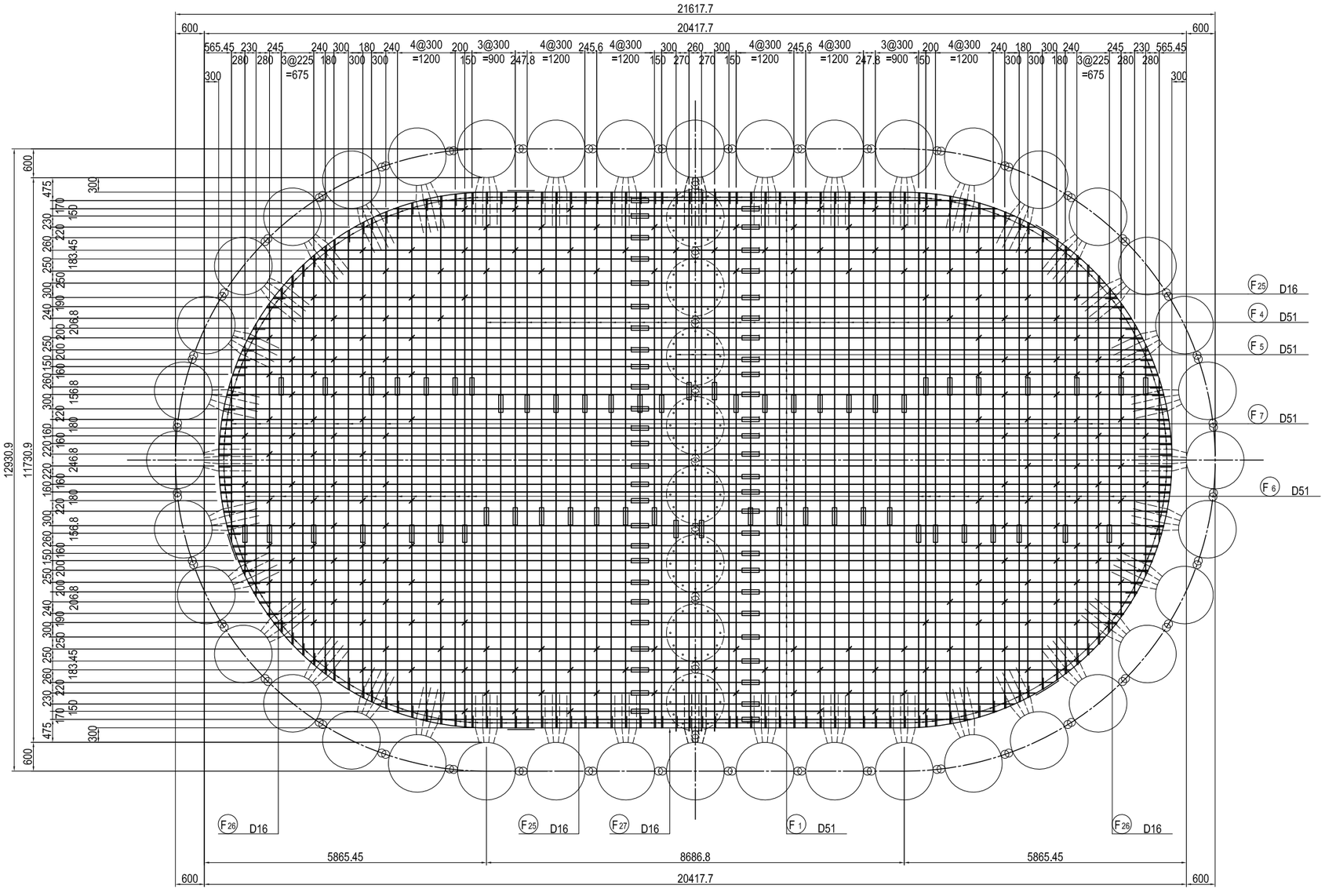
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田智雄	27. Nov.2017	BAR ARRANGEMENT OF P12 FOOTING (4)	1
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2216

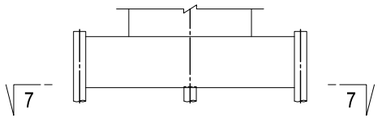
BAR ARRANGEMENT OF P12 FOOTING (5) S=1:100

PLAN

7 - 7



MARKING DIAGRAM



Note) : MECHANICAL JOINT

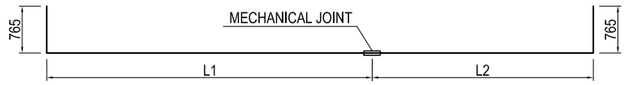
USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

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.		

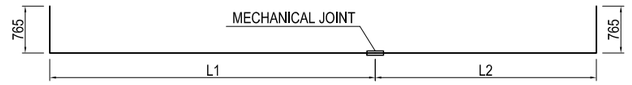
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田智進	27. Nov.2017	BAR ARRANGEMENT OF P12 FOOTING (5)	1
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野裕一	29. Nov.2017		P1-CS-2217

BAR ARRANGEMENT OF P12 FOOTING (6) S=1:100



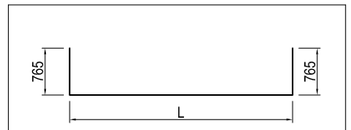
$F_{1\text{-}1}$ 52 – D51 × 10680 （AVE）　　$F_{1\text{-}2}$ 52 – D51 × 8380 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F1 -1 1	D51	2	11057	11822	F1 -2 1	D51	2	8757	9522
2	"	2	11048	11813	2	"	2	8748	9513
3	"	2	11036	11801	3	"	2	8736	9501
4	"	2	11019	11784	4	"	2	8719	9484
5	"	2	10995	11760	5	"	2	8695	9460
6	"	2	10956	11721	6	"	2	8656	9421
7	"	2	10889	11654	7	"	2	8589	9354
8	"	2	10847	11612	8	"	2	8547	9312
9	"	2	10766	11531	9	"	2	8466	9231
10	"	2	10710	11475	10	"	2	8410	9175
11	"	2	10651	11416	11	"	2	8351	9116
12	"	2	10566	11331	12	"	2	8266	9031
13	"	2	10445	11210	13	"	2	8145	8910
14	"	2	10338	11103	14	"	2	8038	8803
15	"	2	10215	10980	15	"	2	7915	8680
16	"	2	10056	10821	16	"	2	7756	8521
17	"	2	9917	10682	17	"	2	7617	8382
18	"	2	9671	10436	18	"	2	7371	8136
19	"	2	9437	10202	19	"	2	7137	7902
20	"	2	9171	9936	20	"	2	6871	7636
21	"	2	8952	9717	21	"	2	6652	7417
22	"	2	8596	9361	22	"	2	6296	7061
23	"	2	8240	9005	23	"	2	5940	6705
24	"	2	7788	8553	24	"	2	5488	6253
25	"	2	7422	8187	25	"	2	5122	5887
26	"	2	6878	7643	26	"	2	4578	5343
AVE		52		10675	AVE		52		8375



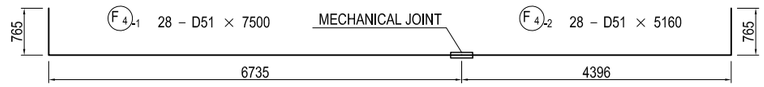
$F_{6\text{-}1}$ 28 – D51 × 7010 （AVE）　　$F_{6\text{-}2}$ 28 – D51 × 3950 （AVE）

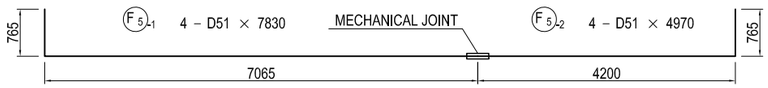
MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F6 -1 1	D51	2	7087	7852	F6 -2 1	D51	2	4027	4792
2	"	2	7077	7842	2	"	2	4017	4782
3	"	2	7057	7822	3	"	2	3997	4762
4	"	2	7014	7779	4	"	2	3954	4719
5	"	2	6953	7718	5	"	2	3893	4658
6	"	2	6875	7640	6	"	2	3815	4580
7	"	2	6779	7544	7	"	2	3719	4484
8	"	2	6556	7321	8	"	2	3496	4261
9	"	2	6467	7232	9	"	2	3407	4172
10	"	2	5974	6739	10	"	2	2914	3679
11	"	2	5783	6548	11	"	2	2723	3488
12	"	2	5105	5870	12	"	2	2045	2810
13	"	2	4791	5556	13	"	2	1731	2496
14	"	2	3933	4698	14	"	2	873	1638
AVE		28		7012	AVE		28		3952



F_7 14 – D51 × 9220 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F7 1	D51	2	10316	11846
2	"	2	9537	11067
3	"	2	9149	10679
4	"	2	8104	9634
5	"	2	7656	9186
6	"	2	5667	7197
7	"	2	3397	4927
AVE		14		9219





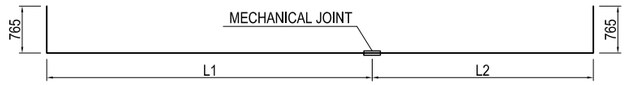
USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm^2	SD345

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.		

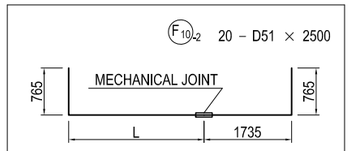
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P12 FOOTING (6)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2218

BAR ARRANGEMENT OF P12 FOOTING (7) S=1:100



F_{2-1} 52 – D51 × 10450 （AVE）　　F_{2-2} 52 – D51 × 8150 （AVE）

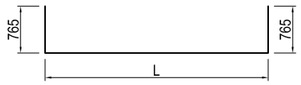
MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F2 -1 1	D51	2	10907	11672	F2 -2 1	D51	2	8607	9372
2	"	2	10898	11663	2	"	2	8598	9363
3	"	2	10885	11650	3	"	2	8585	9350
4	"	2	10868	11633	4	"	2	8568	9333
5	"	2	10843	11608	5	"	2	8543	9308
6	"	2	10803	11568	6	"	2	8503	9268
7	"	2	10734	11499	7	"	2	8434	9199
8	"	2	10691	11456	8	"	2	8391	9156
9	"	2	10608	11373	9	"	2	8308	9073
10	"	2	10549	11314	10	"	2	8249	9014
11	"	2	10489	11254	11	"	2	8189	8954
12	"	2	10401	11166	12	"	2	8101	8866
13	"	2	10276	11041	13	"	2	7976	8741
14	"	2	10164	10929	14	"	2	7864	8629
15	"	2	10037	10802	15	"	2	7737	8502
16	"	2	9872	10637	16	"	2	7572	8337
17	"	2	9727	10492	17	"	2	7427	8192
18	"	2	9469	10234	18	"	2	7169	7934
19	"	2	9223	9988	19	"	2	6923	7688
20	"	2	8940	9705	20	"	2	6640	7405
21	"	2	8705	9470	21	"	2	6405	7170
22	"	2	8318	9083	22	"	2	6018	6783
23	"	2	7922	8687	23	"	2	5622	6387
24	"	2	7395	8160	24	"	2	5095	5860
25	"	2	6934	7699	25	"	2	4634	5399
26	"	2	6013	6778	26	"	2	3713	4478
AVE		52		10445	AVE		52		8145



F_{10-2} 20 – D51 × 2500

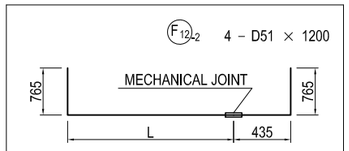
F_{10-1} 20 – D51 × 7980 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F10 -1 1	D51	2	9079	9844
2	"	2	9058	9823
3	"	2	9018	9783
4	"	2	8928	9693
5	"	2	8803	9568
6	"	2	7984	8749
7	"	2	6775	7540
8	"	2	4939	5704
9	"	2	4261	5026
10	"	2	3318	4083
AVE		20		7981



F_{11} 18 – D51 × 10540 （AVE）

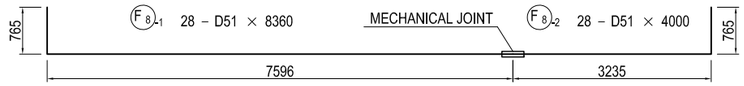
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F11 1	D51	2	10378	11908
2	"	2	10179	11709
3	"	2	9992	11522
4	"	2	9534	11064
5	"	2	9185	10715
6	"	2	8781	10311
7	"	2	8109	9639
8	"	2	7687	9217
9	"	2	7213	8743
AVE		18		10536



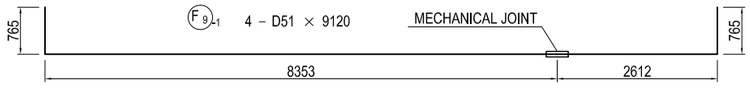
F_{12-2} 4 – D51 × 1200

F_{12-1} 4 – D51 × 3470 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F12 -1 1	D51	2	3628	4393
2	"	2	1789	2554
AVE		4		3474



F_{8-1} 28 – D51 × 8360　　F_{8-2} 28 – D51 × 4000



F_{9-1} 4 – D51 × 9120

F_{9-2} 4 – D51 × 3380

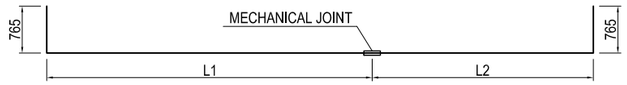
USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
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.

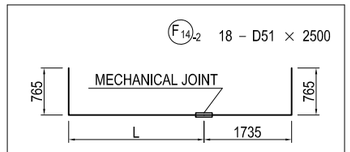
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P12 FOOTING (7)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2219

BAR ARRANGEMENT OF P12 FOOTING (8) S=1:100



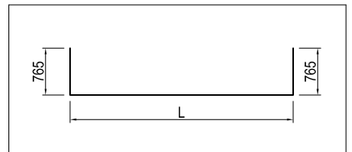
F3-1 50 – D51 × 10170 （AVE）　　F3-2 50 – D51 × 8270 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F3-1 1	D51	2	10557	11322	F3-2 1	D51	2	8657	9422
2	"	2	10548	11313	2	"	2	8648	9413
3	"	2	10535	11300	3	"	2	8635	9400
4	"	2	10517	11282	4	"	2	8617	9382
5	"	2	10491	11256	5	"	2	8591	9356
6	"	2	10450	11215	6	"	2	8550	9315
7	"	2	10379	11144	7	"	2	8479	9244
8	"	2	10335	11100	8	"	2	8435	9200
9	"	2	10249	11014	9	"	2	8349	9114
10	"	2	10188	10953	10	"	2	8288	9053
11	"	2	10126	10891	11	"	2	8226	8991
12	"	2	10035	10800	12	"	2	8135	8900
13	"	2	9906	10671	13	"	2	8006	8771
14	"	2	9790	10555	14	"	2	7890	8655
15	"	2	9657	10422	15	"	2	7757	8522
16	"	2	9485	10250	16	"	2	7585	8350
17	"	2	9333	10098	17	"	2	7433	8198
18	"	2	9062	9827	18	"	2	7162	7927
19	"	2	8801	9566	19	"	2	6901	7666
20	"	2	8499	9264	20	"	2	6599	7364
21	"	2	8245	9010	21	"	2	6345	7110
22	"	2	7819	8584	22	"	2	5919	6684
23	"	2	7366	8131	23	"	2	5466	6231
24	"	2	6713	7478	24	"	2	4813	5578
25	"	2	5980	6745	25	"	2	4080	4845
AVE		50		10168	AVE		50		8268



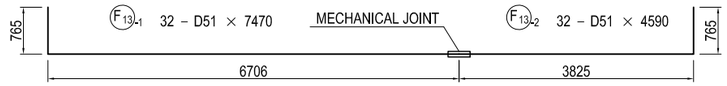
F14-1 18 – D51 × 8360 （AVE）

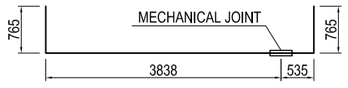
MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F14-1 1	D51	2	8779	9544
2	"	2	8757	9522
3	"	2	8623	9388
4	"	2	8495	9260
5	"	2	7931	8696
6	"	2	7649	8414
7	"	2	6674	7439
8	"	2	6390	7155
9	"	2	5019	5784
AVE		18		8356



F15 20 – D51 × 9350 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F15 1	D51	2	10450	11980
2	"	2	10064	11594
3	"	2	9860	11390
4	"	2	9191	10721
5	"	2	8829	10359
6	"	2	7704	9234
7	"	2	7258	8788
8	"	2	6176	7706
9	"	2	5435	6965
10	"	2	3178	4708
AVE		20		9345





F16-1 2 – D51 × 4600　　F16-2 2 – D51 × 1300

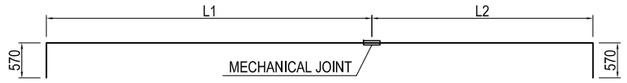
USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
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.

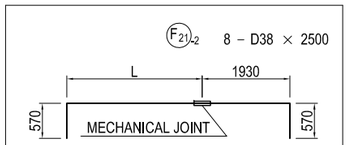
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P12 FOOTING (8)	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017		P1-CS-2220

BAR ARRANGEMENT OF P12 FOOTING (9) S=1:100



F_{17}-1 52 – D38 × 10480 （AVE） F_{17}-2 52 – D38 × 8180 （AVE）

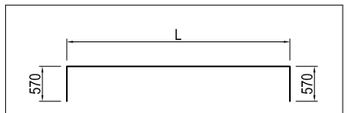
MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F17-1 1	D38	2	11057	11627	F17-2 1	D38	2	8757	9327
2	〃	2	11048	11618	2	〃	2	8748	9318
3	〃	2	11036	11606	3	〃	2	8736	9306
4	〃	2	11019	11589	4	〃	2	8719	9289
5	〃	2	10995	11565	5	〃	2	8695	9265
6	〃	2	10956	11526	6	〃	2	8656	9226
7	〃	2	10889	11459	7	〃	2	8589	9159
8	〃	2	10847	11417	8	〃	2	8547	9117
9	〃	2	10766	11336	9	〃	2	8466	9036
10	〃	2	10710	11280	10	〃	2	8410	8980
11	〃	2	10651	11221	11	〃	2	8351	8921
12	〃	2	10566	11136	12	〃	2	8266	8836
13	〃	2	10445	11015	13	〃	2	8145	8715
14	〃	2	10338	10908	14	〃	2	8038	8608
15	〃	2	10215	10785	15	〃	2	7915	8485
16	〃	2	10056	10626	16	〃	2	7756	8326
17	〃	2	9917	10487	17	〃	2	7617	8187
18	〃	2	9671	10241	18	〃	2	7371	7941
19	〃	2	9437	10007	19	〃	2	7137	7707
20	〃	2	9171	9741	20	〃	2	6871	7441
21	〃	2	8952	9522	21	〃	2	6652	7222
22	〃	2	8596	9166	22	〃	2	6296	6866
23	〃	2	8240	8810	23	〃	2	5940	6510
24	〃	2	7788	8358	24	〃	2	5488	6058
25	〃	2	7422	7992	25	〃	2	5122	5692
26	〃	2	6878	7448	26	〃	2	4578	5148
AVE		52		10480	AVE		52		8180



F_{21}-2 8 – D38 × 2500

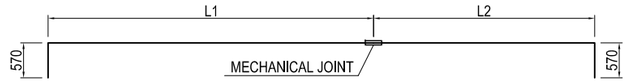
F_{21}-1 8 – D38 × 9700 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F21-1 1	D38	2	9185	9755
2	〃	2	9164	9734
3	〃	2	9125	9695
4	〃	2	9038	9608
AVE		8		9698



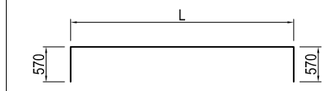
F_{22} 34 – D38 × 9470 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F22 1	D38	2	10847	11987
2	〃	2	10691	11831
3	〃	2	10498	11638
4	〃	2	10316	11456
5	〃	2	10052	11192
6	〃	2	9873	11013
7	〃	2	9537	10677
8	〃	2	9149	10289
9	〃	2	8889	10029
10	〃	2	8506	9646
11	〃	2	8104	9244
12	〃	2	7656	8796
13	〃	2	7151	8291
14	〃	2	6522	7662
15	〃	2	5667	6807
16	〃	2	4806	5946
17	〃	2	3397	4537
AVE		34		9473



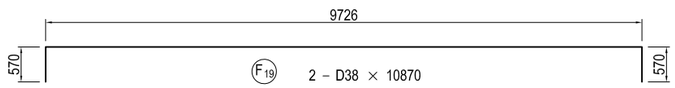
F_{18}-1 50 – D38 × 10400 （AVE） F_{18}-2 50 – D38 × 8100 （AVE）

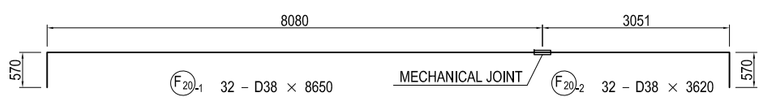
MARKS	DIA.	NOS. OF BARS	LENGTH L1	TOTAL LENGTH ΣL	MARKS	DIA.	NOS. OF BARS	LENGTH L2	TOTAL LENGTH ΣL
F18-1 1	D38	2	10907	11477	F18-2 1	D38	2	8607	9177
2	〃	2	10898	11468	2	〃	2	8598	9168
3	〃	2	10885	11455	3	〃	2	8585	9155
4	〃	2	10868	11438	4	〃	2	8568	9138
5	〃	2	10843	11413	5	〃	2	8543	9113
6	〃	2	10803	11373	6	〃	2	8503	9073
7	〃	2	10734	11304	7	〃	2	8434	9004
8	〃	2	10691	11261	8	〃	2	8391	8961
9	〃	2	10608	11178	9	〃	2	8308	8878
10	〃	2	10549	11119	10	〃	2	8249	8819
11	〃	2	10489	11059	11	〃	2	8189	8759
12	〃	2	10401	10971	12	〃	2	8101	8671
13	〃	2	10276	10846	13	〃	2	7976	8546
14	〃	2	10164	10734	14	〃	2	7864	8434
15	〃	2	10037	10607	15	〃	2	7737	8307
16	〃	2	9872	10442	16	〃	2	7572	8142
17	〃	2	9727	10297	17	〃	2	7427	7997
18	〃	2	9469	10039	18	〃	2	7169	7739
19	〃	2	9223	9793	19	〃	2	6923	7493
20	〃	2	8940	9510	20	〃	2	6640	7210
21	〃	2	8705	9275	21	〃	2	6405	6975
22	〃	2	8318	8888	22	〃	2	6018	6588
23	〃	2	7922	8492	23	〃	2	5622	6192
24	〃	2	7395	7965	24	〃	2	5095	5665
25	〃	2	6934	7504	25	〃	2	4634	5204
AVE		50		10396	AVE		50		8096

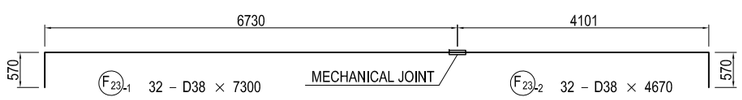


F_{24} 42 – D38 × 9560 （AVE）

MARKS	DIA.	NOS. OF BARS	LENGTH L	TOTAL LENGTH ΣL
F24 1	D38	2	10814	11954
2	〃	2	10793	11933
3	〃	2	10753	11893
4	〃	2	10663	11803
5	〃	2	10538	11678
6	〃	2	10378	11518
7	〃	2	10179	11319
8	〃	2	9992	11132
9	〃	2	9719	10859
10	〃	2	9534	10674
11	〃	2	9185	10325
12	〃	2	8781	9921
13	〃	2	8510	9650
14	〃	2	8109	9249
15	〃	2	7687	8827
16	〃	2	7213	8353
17	〃	2	6674	7814
18	〃	2	5996	7136
19	〃	2	5053	6193
20	〃	2	4063	5203
21	〃	2	2224	3364
AVE		42		9562







USE MATERIALS

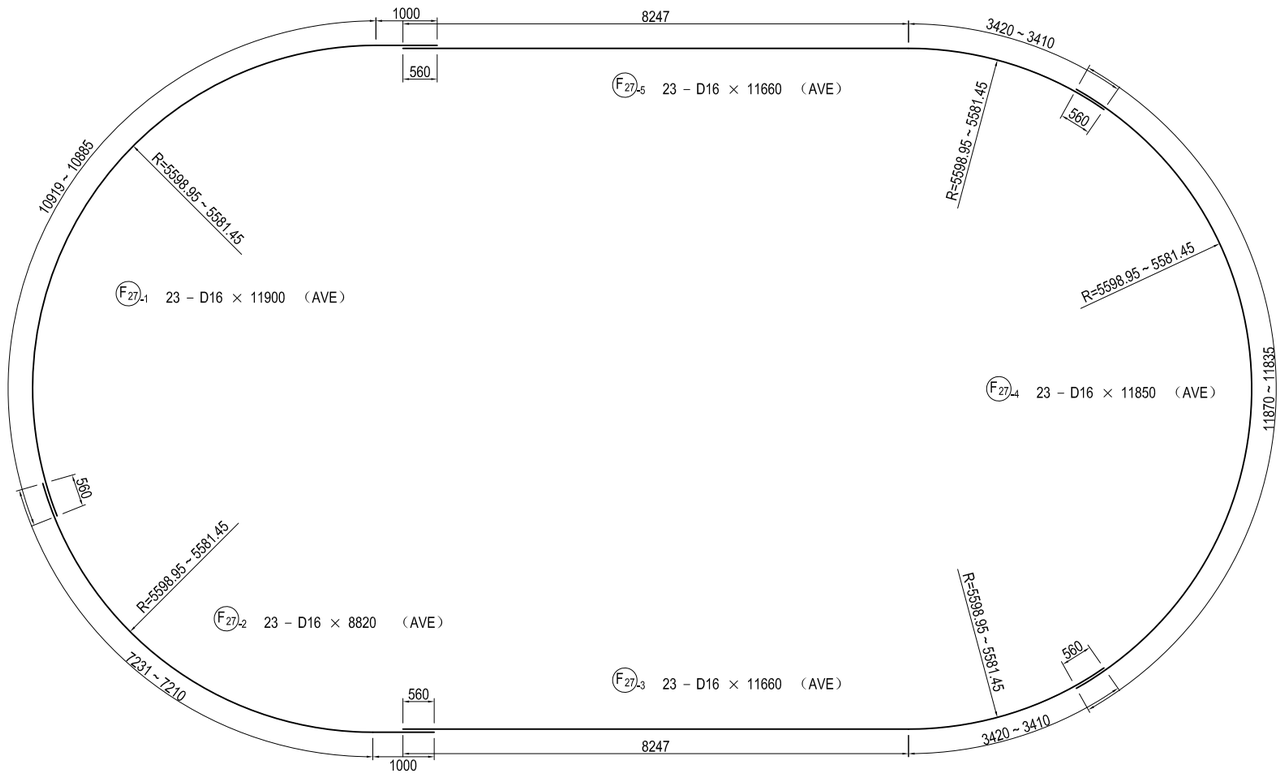
	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

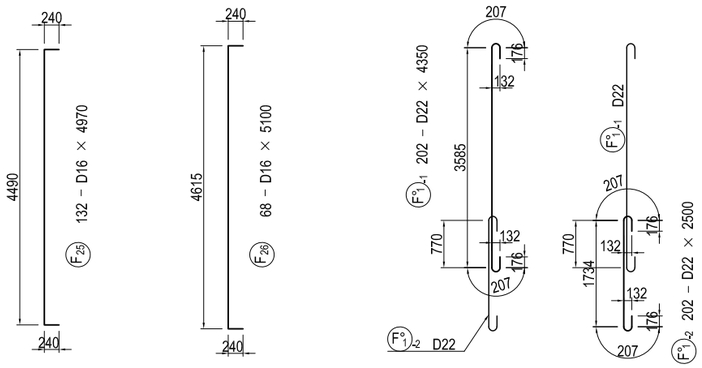
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.

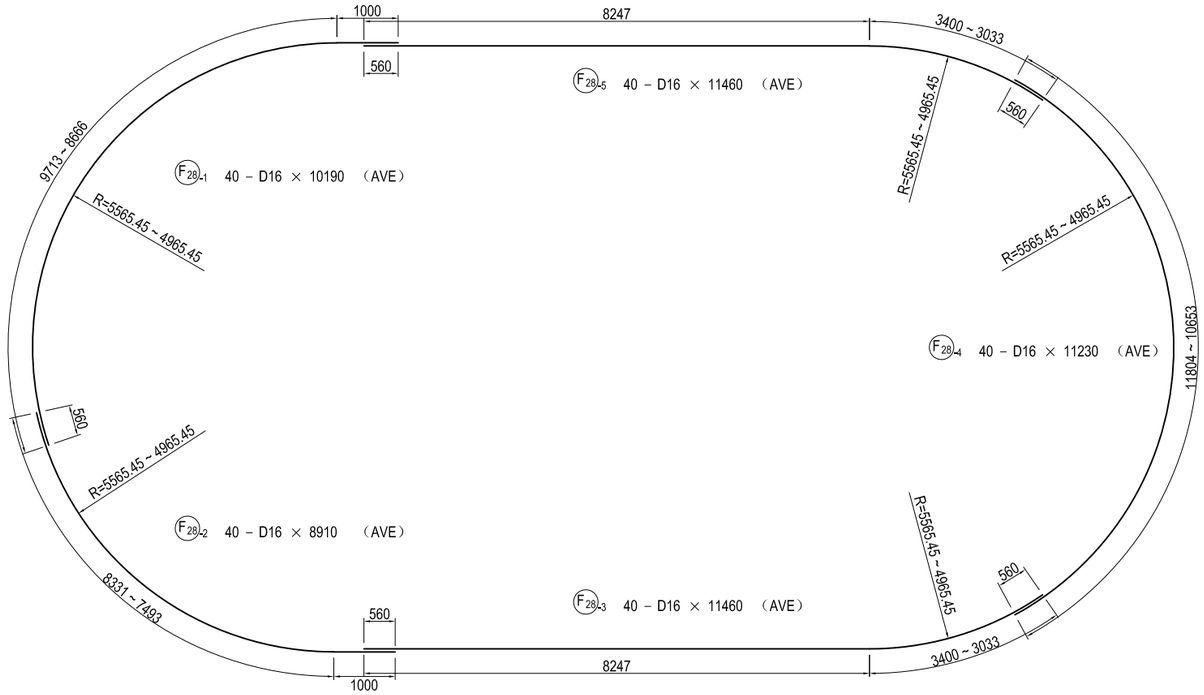
	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF P12 FOOTING (9)	1
	DWG No.
	P1-CS-2221

BAR ARRANGEMENT OF P12 FOOTING (10) S=1:100







Note） The joint position of the reinfocing bar is rotated 180 degrees for each step arranged.

USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm^2	SD345

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	T.TOMODA	友田富雄	27. Nov.2017	BAR ARRANGEMENT OF P12 FOOTING (10)	1
CHECKED BY	T. HAYAKAWA	早川知男	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2222

BAR ARRANGEMENT OF P12 FOOTING (11) NOT TO SCALE

BAR SCHEDULE

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
F 1-1	D51	10680	52	15.9	169.81	8830	(52) (AVE)
1-2	"	8380	52	"	133.24	6928	(AVE)
2-1	"	10450	52	"	166.16	8640	(52) (AVE)
2-2	"	8150	52	"	129.59	6739	(AVE)
3-1	"	10170	50	"	161.70	8085	(50) (AVE)
3-2	"	8270	50	"	131.49	6575	(AVE)
4-1	"	7500	28	"	119.25	3339	(28)
4-2	"	5160	28	"	82.04	2297	
5-1	"	7830	4	"	124.50	498	(4)
5-2	"	4970	4	"	79.02	316	
6-1	"	7010	28	"	111.46	3121	(28) (AVE)
6-2	"	3950	28	"	62.81	1759	(AVE)
7	"	9220	14	"	146.60	2052	(AVE)
8-1	"	8360	28	"	132.92	3722	(28)
8-2	"	4000	28	"	63.60	1781	
9-1	"	9120	4	"	145.01	580	(4)
9-2	"	3380	4	"	53.74	215	
10-1	"	7980	20	"	126.88	2538	(20) (AVE)
10-2	"	2500	20	"	39.75	795	
11	"	10540	18	"	167.59	3017	(AVE)
12-1	"	3470	4	"	55.17	221	(4) (AVE)
12-2	"	1200	4	"	19.08	76	
13-1	"	7470	32	"	118.77	3801	(32)
13-2	"	4590	32	"	72.98	2335	
14-1	"	8360	18	"	132.92	2393	(18) (AVE)
14-2	"	2500	18	"	39.75	716	
15	"	9350	20	"	148.67	2973	(AVE)
16-1	"	4600	2	"	73.14	146	(2)
16-2	"	1300	2	"	20.67	41	
17-1	D38	10480	52	8.95	93.80	4878	(52) (AVE)
17-2	"	8180	52	"	73.21	3807	(AVE)
18-1	"	10400	50	"	93.08	4654	(50) (AVE)
18-2	"	8100	50	"	72.50	3625	(AVE)
19	"	10870	2	"	97.29	195	
20-1	"	8650	32	"	77.42	2477	(32)
20-2	"	3620	32	"	32.40	1037	
21-1	"	9700	8	"	86.82	695	(8) (AVE)
21-2	"	2500	8	"	22.38	179	
22	"	9470	34	"	84.76	2882	(AVE)
23-1	"	7300	32	"	65.34	2091	(32)
23-2	"	4670	32	"	41.80	1338	
24	"	9560	42	"	85.56	3594	(AVE)

MARKS	DIA.	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	REMARKS
F 25	D16	4970	132	1.56	7.75	1023	
26	"	5100	68	"	7.96	541	
27-1	"	11900	23	"	18.56	427	(AVE)
27-2	"	8820	23	"	13.76	316	(AVE)
27-3	"	11660	23	"	18.19	418	(AVE)
27-4	"	11850	23	"	18.49	425	(AVE)
27-5	"	11660	23	"	18.19	418	(AVE)
28-1	"	10190	40	"	15.90	636	(AVE)
28-2	"	8910	40	"	13.90	556	(AVE)
28-3	"	11460	40	"	17.88	715	(AVE)
28-4	"	11230	40	"	17.52	701	(AVE)
28-5	"	11460	40	"	17.88	715	(AVE)
					SUBTOTAL	122872 kg	
F° 1-1	D22	4350	202	3.04	13.22	2670	
1-2	"	2500	202	"	7.60	1535	"
					SUBTOTAL	4205 kg	

(MECHANICAL JOINT)

D51	84529 kg	(322)
D38	31452 "	(174)
D22	4205 "	
D16	6891 "	
TOTAL	127077 kg	(496)

USE MATERIALS

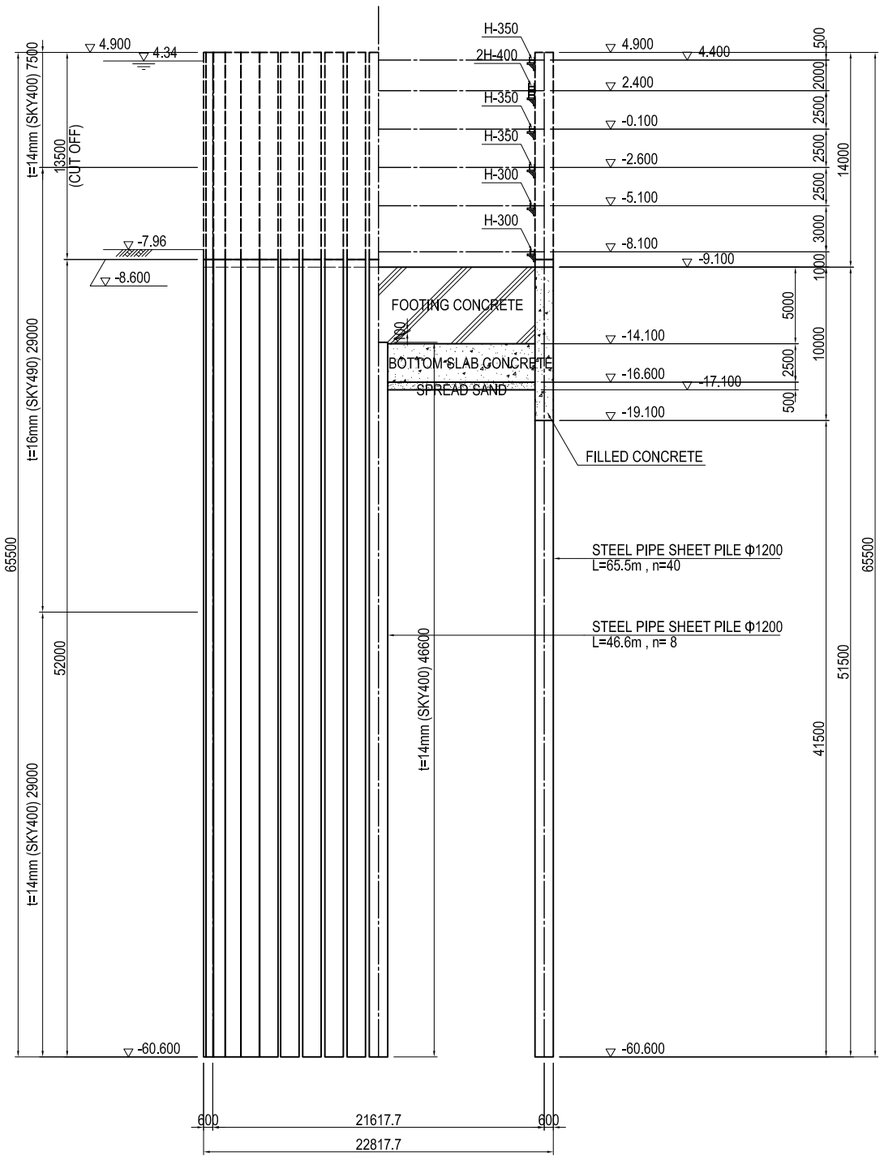
	CONCRETE	BAR
FOOTING	σck = 24 N/mm^2	SD345

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	T.TOMODA	友田智進	27. Nov.2017	BAR ARRANGEMENT OF P12 FOOTING (11)	1
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野 雄一	29. Nov.2017		P1-CS-2223

GENERAL DRAWING OF STEEL PIPE SHEET PILE FOUNDATION OF P12 PIER S=1:400

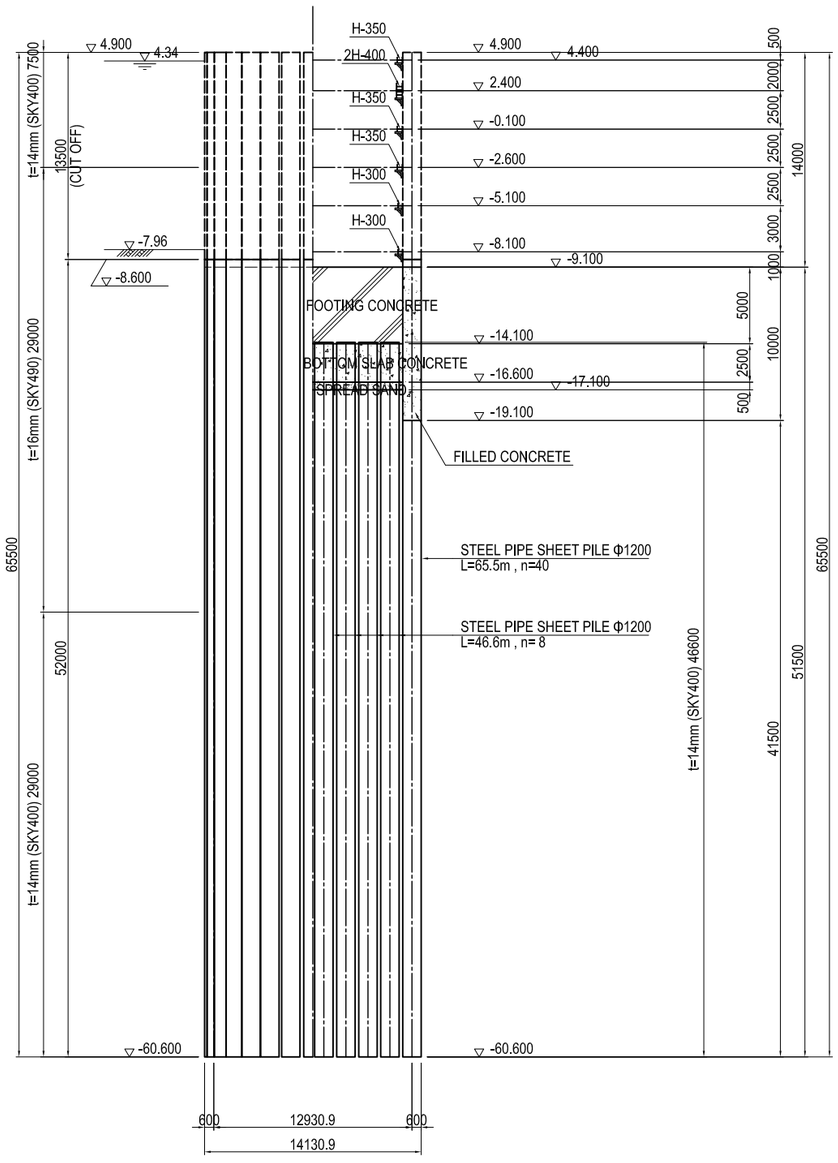
FRONT ELEVATION S=1/400

1 - 1　　2 - 2

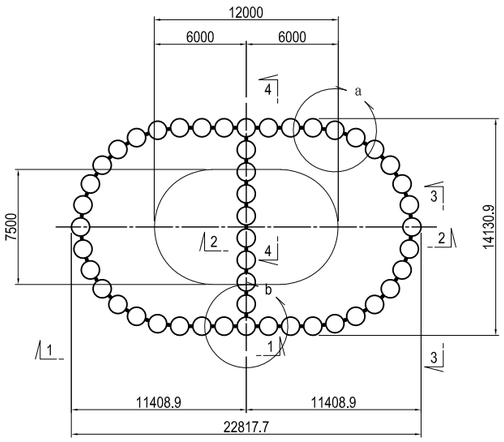


SIDE ELEVATION S=1/400

3 - 3　　4 - 4



PLAN



DETAIL a S=1:200

DETAIL b S=1:200

USE MATERIALS

	CONCRETE	BAR
FOOTING	σck = 24 N/mm²	SD345

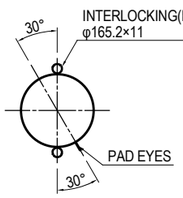
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	GENERAL DRAWING OF STEEL PIPE SHEET PILE FOUNDATION OF P12 PIER	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017		P1-CS-2224

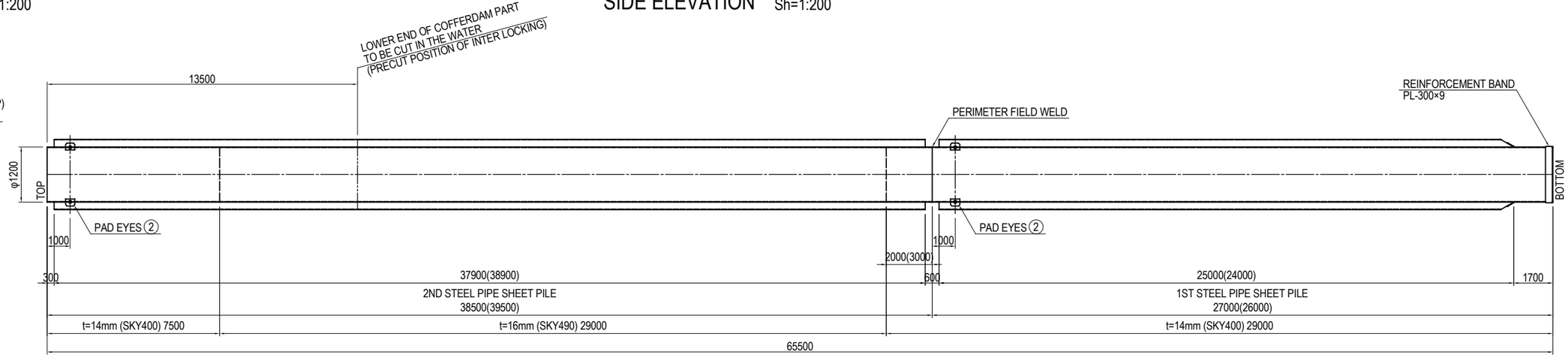
DETAIL OF STEEL PIPE SHEET PILE OF P12 PIER（1）

CROSS SECTION S=1:200

TYPE A
（TYPE **B**）

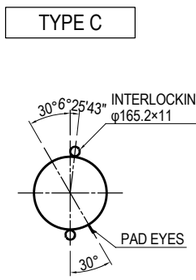


SIDE ELEVATION Sv=1:100 Sh=1:200

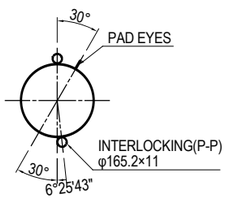


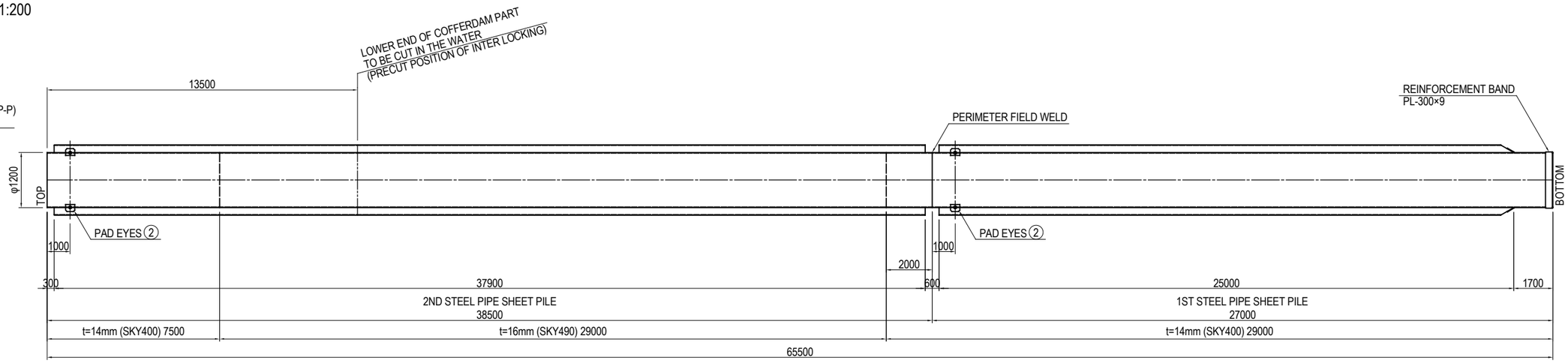
CROSS SECTION S=1:200

TYPE C

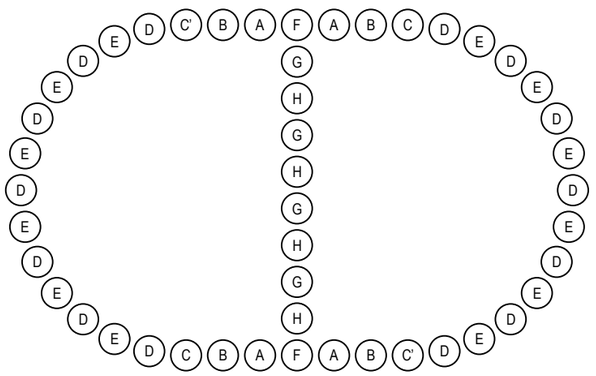


TYPE C'



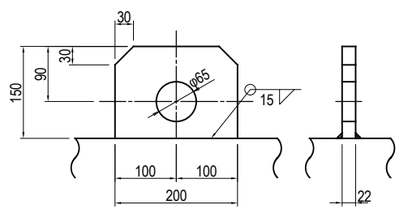


STEEL PIPE SHEET PILE TYPE AND POSITION

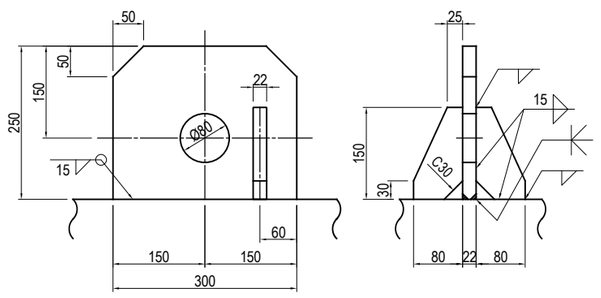


DETAIL OF EYES S=1:10

PAD EYES ① **PL-200**x150x22（SM**490A**）



PAD EYES ② **PL-300**x250x22（SM**490A**）



Note: Drawing of Pad Eye (metal fitting for hanging) and the position of perimeter field weld can be used for reference only.

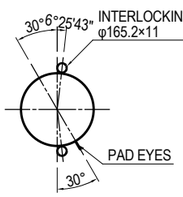
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	**DETAIL OF STEEL PIPE SHEET PILE OF P12 PIER（1）**	1
CHECKED BY	T. HAYAKAWA	早川和男	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017		P1-CS-2225

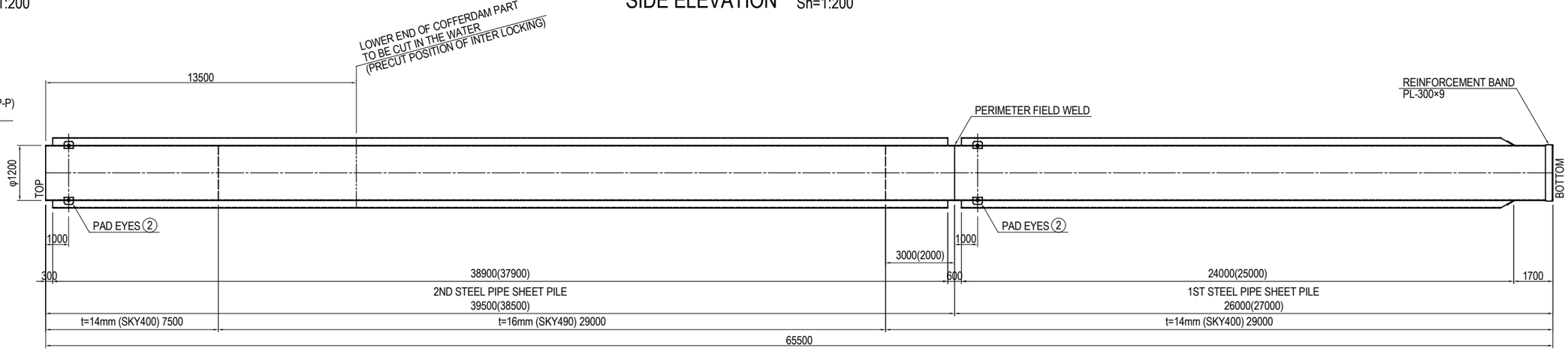
DETAIL OF STEEL PIPE SHEET PILE OF P12 PIER（2）

CROSS SECTION S=1:200

TYPE D
（TYPE E）

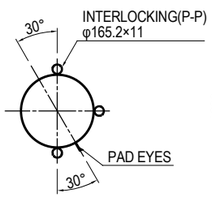


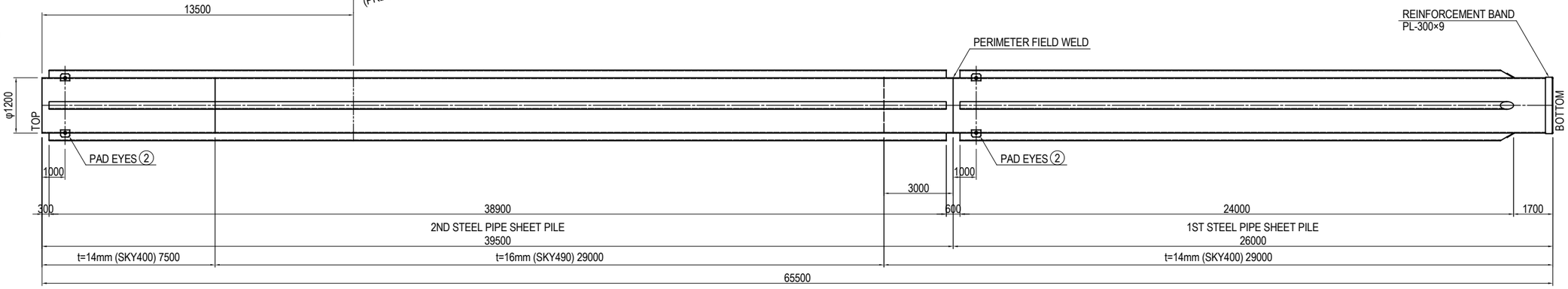
SIDE ELEVATION Sv=1:100 Sh=1:200



CROSS SECTION S=1:200

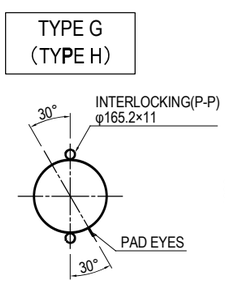
TYPE F

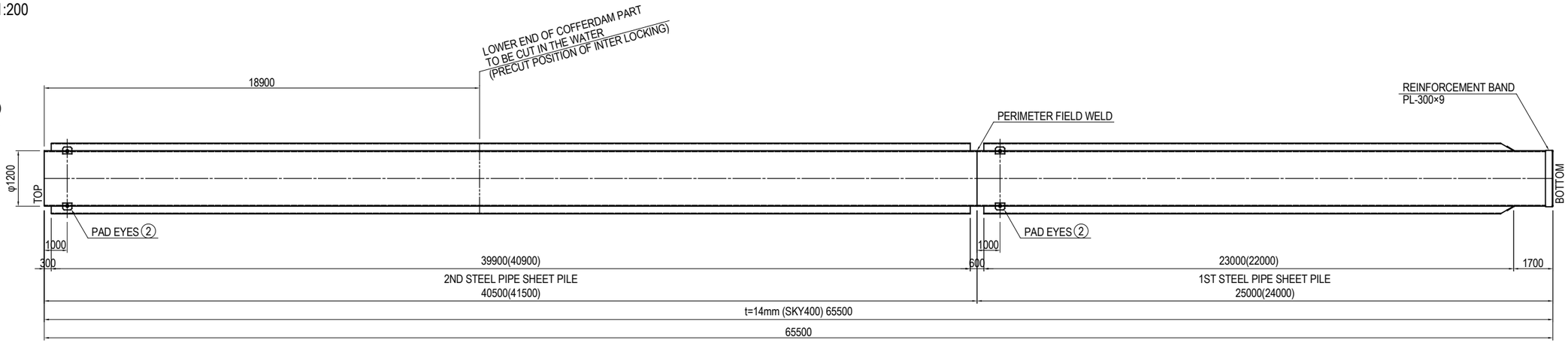




CROSS SECTION S=1:200

TYPE G
（TYPE H）





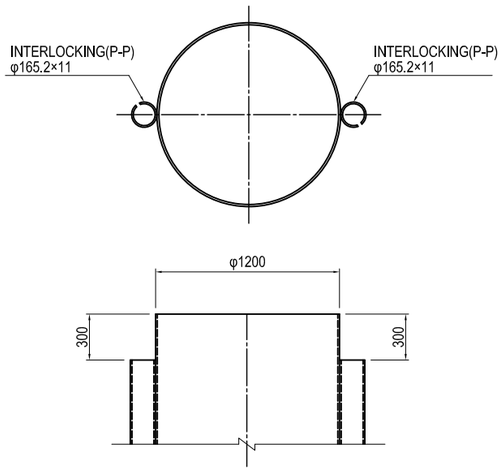
Note: Drawing of Pad Eye (metal fitting for hanging) and the position of perimeter field weld can be used for reference only.

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.		

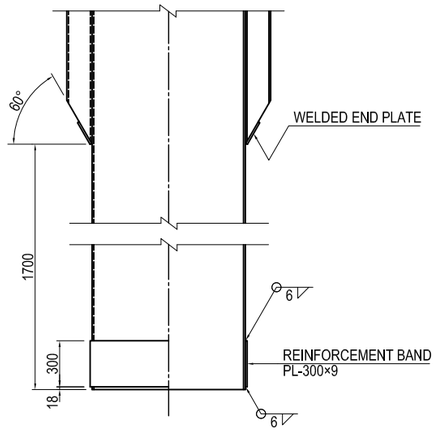
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	DETAIL OF STEEL PIPE SHEET PILE OF P12 PIER（2）	1
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017		P1-CS-2226

DETAIL OF INTERLOCKING OF STEEL PIPE SHEET PILE OF P12 PIER

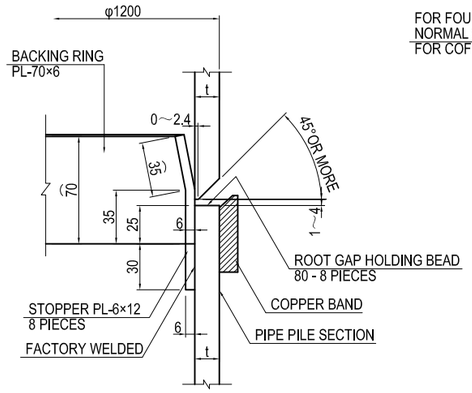
DETAIL OF STEEL PIPE SHEET PILE TOP S=1:40



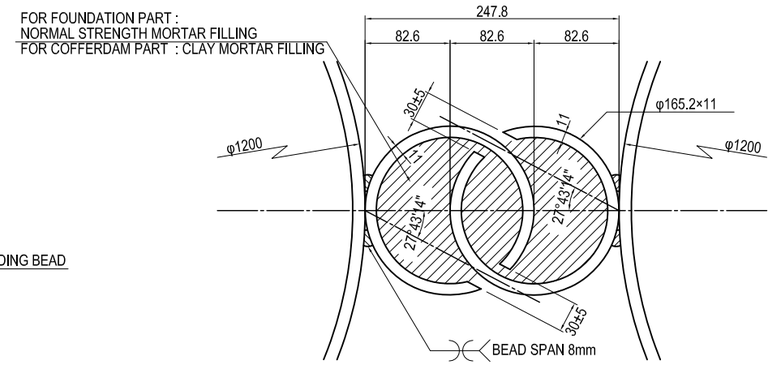
DETAIL OF STEEL PIPE SHEET PILE TOE S=1:40



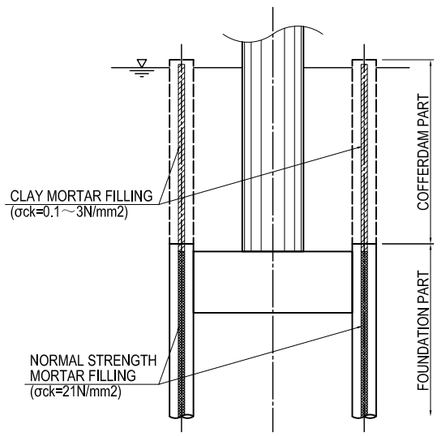
DETAIL OF PERIMETER FIELD WELDING OF STEEL PIPE SHEET PILE S=1:4



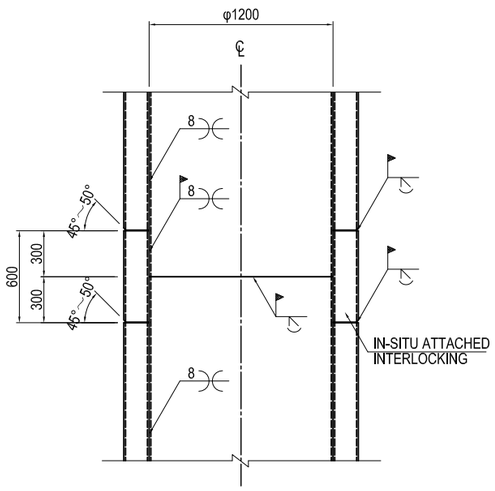
DETAIL OF CONNECTED INTERLOCKING(P-P) S=1:6



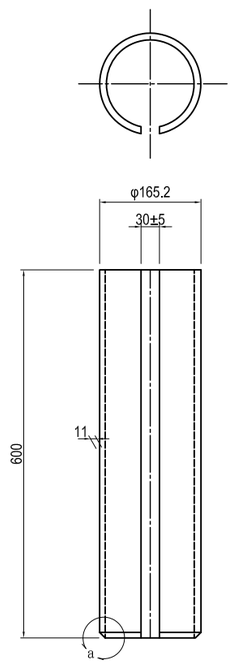
TREATMENT OF STEEL PIPE SHEET PILE INTERLOCKING



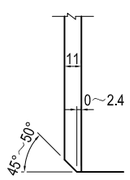
DETAIL OF IN-SITU LONGITUDINAL WELDING PART S=1:40



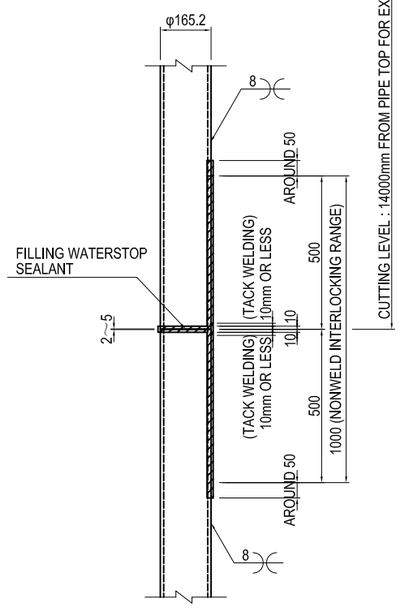
DETAIL OF IN-SITU ATTACHED INTERLOCKING S=1:10



DETAIL a

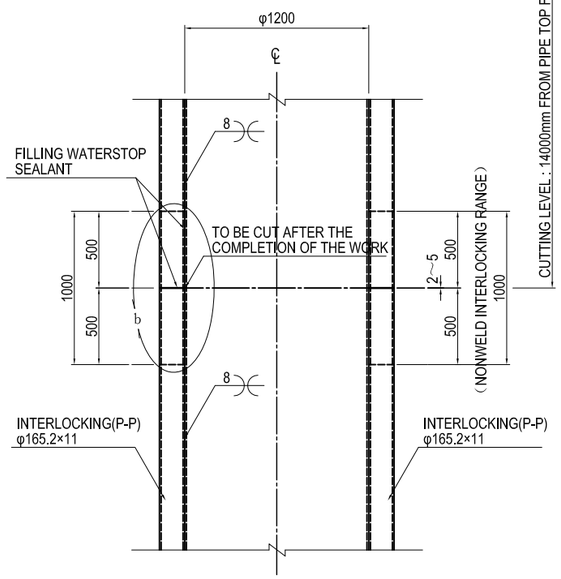


DETAIL b



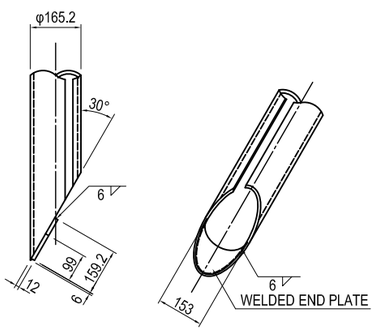
CUTTING LEVEL : 14000mm FROM PIPE TOP FOR EXTERNAL-WALL SHEET PILING

DETAIL OF PRECUT INTERRLOCKING S=1:40



CUTTING LEVEL : 14000mm FROM PIPE TOP FOR EXTERNAL-WALL SHEET PILING

DETAIL OF INTERRLOCKING TOE S=1:20



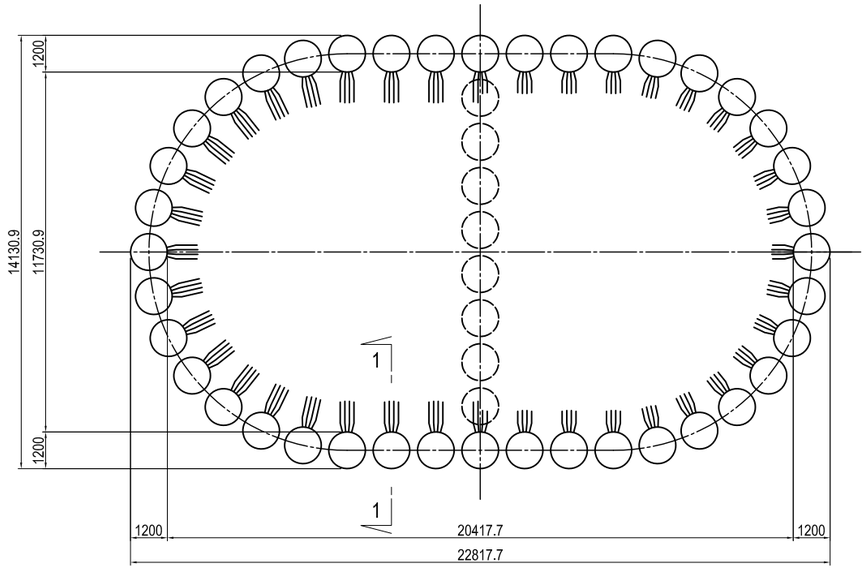
PROJECT NAME	DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		
FINANCED BY	JAPAN INTERNATIONAL COOPERATION AGENCY		
COUNTERPART	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		
JICA STUDY TEAM	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017
CHECKED BY	T. HAYAKAWA	早川知邦	28. Nov.2017
APPROVED BY	Y. SANO	佐野雄一	29. Nov.2017

DRAWING TITLE	PACKAGE
DETAIL OF INTERLOCKING OF STEEL PIPE SHEET PILE OF P12 PIER	1
	DWG No.
	P1-CS-2227

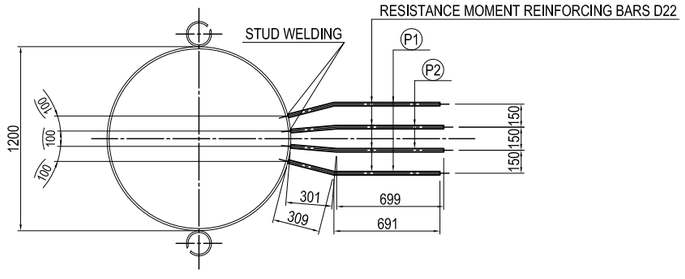
DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING OF P12 PIER

PLAN S=1:200

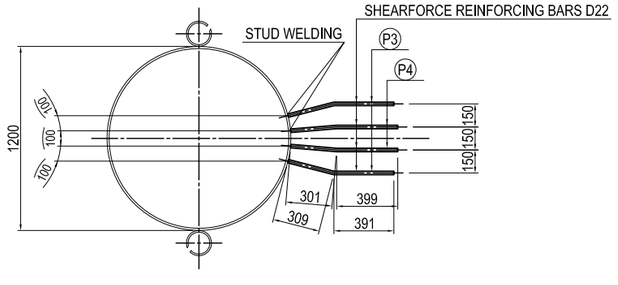


CROSS SECTION OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND REINFORCING BARS S=1:40

3 - 3 CROSS SECTION
(RESISTANCE MOMENT REINFORCING BARS CONNECTION PART)

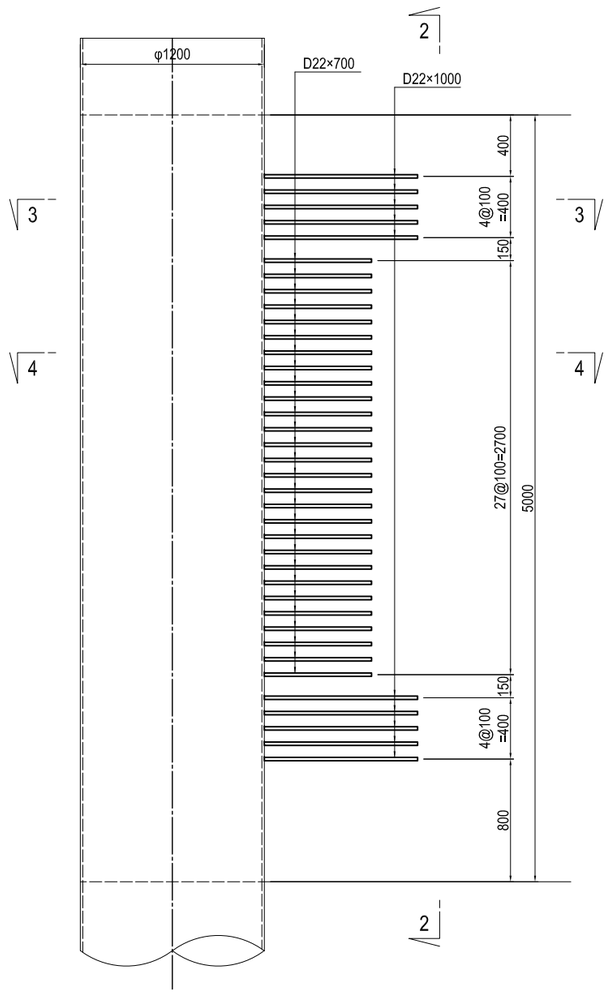


4 - 4 CROSS SECTION
(SHEARFORCE REINFORCING BARS CONNECTION PART)

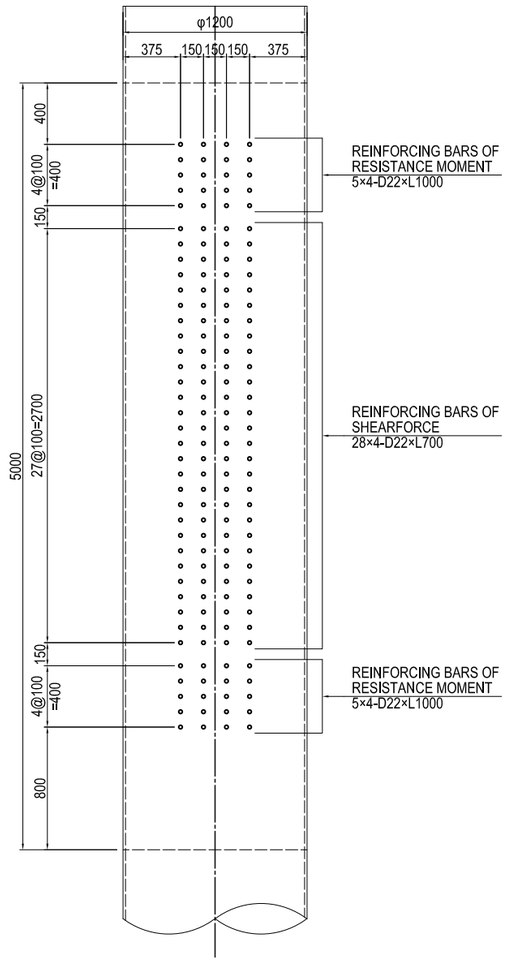


DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING S=1:40

1 - 1 CROSS SECTION



2 - 2 CROSS SECTION



FABRICATION OF REINFORCING BARS S=1:40

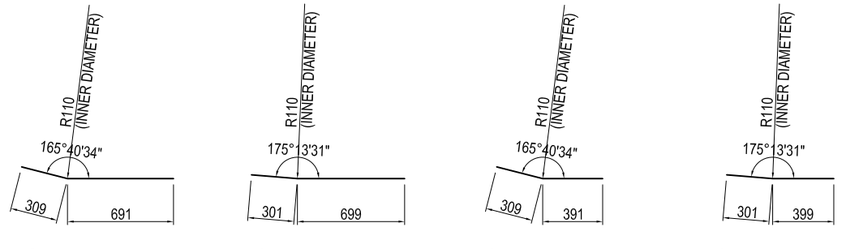


TABLE OF REINFORCING BARS

MARK	TYPE	LENGTH (mm)	PIECES (piece)	UNIT WEIGHT (kg/m)	UNIT WEIGHT (kg/piece)	WEIGHT (kg)	GRADE	MEMO
P1	D22	1000	800	3.04	3.04	2432	SD345 for STUD WELDING	
P2	D22	1000	800	3.04	3.04	2432	SD345 for STUD WELDING	
P3	D22	700	2240	3.04	2.13	4771	SD345 for STUD WELDING	
P4	D22	700	2240	3.04	2.13	4771	SD345 for STUD WELDING	
					D22	14406	kg	
					TOTAL WEIGHT	14406	kg	

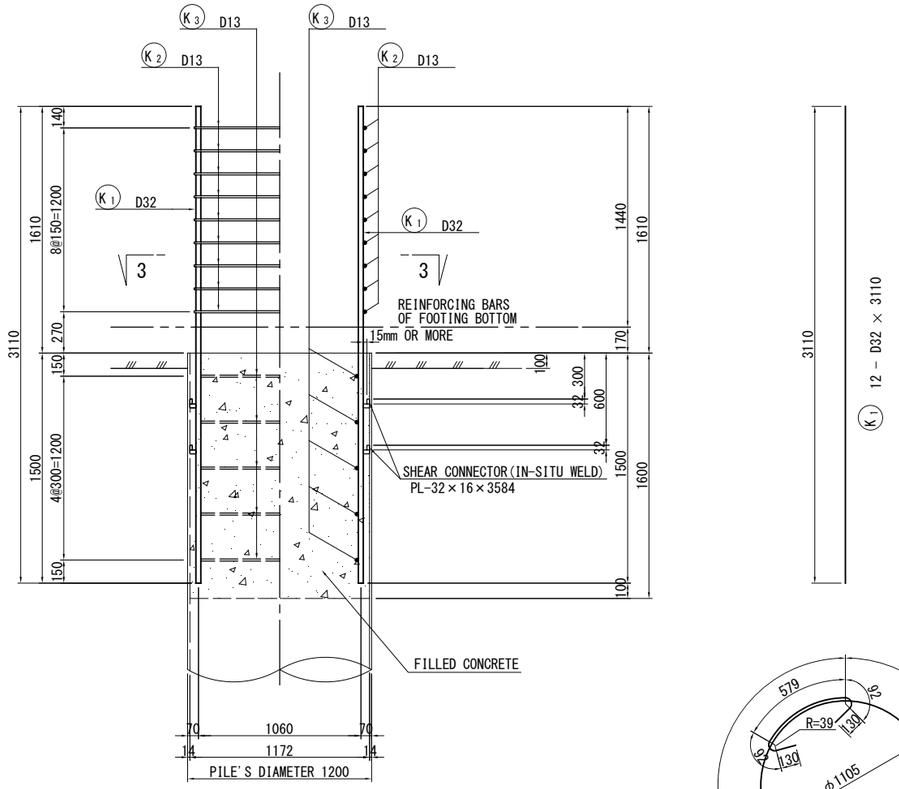
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田智雄	27. Nov.2017	DETAIL OF CONNECTION BETWEEN STEEL PIPE SHEET PILE AND FOOTING OF P12 PIER	1
CHECKED BY	T. HAYAKAWA	早川知子	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野祐一	29. Nov.2017		P1-CS-2228

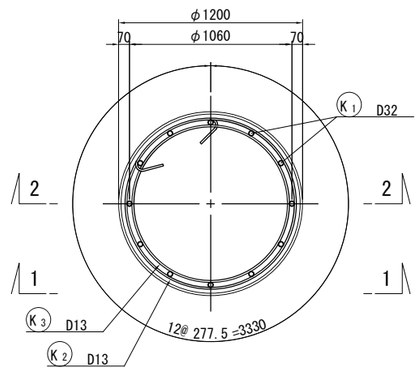
DETAIL OF PILE TOP CONNECTION TO THE BASE CONCRETE OF P12 PIER S=1:40

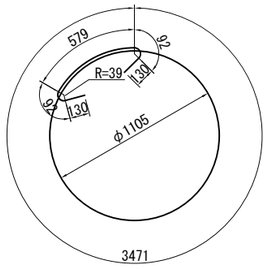
DETAIL OF PILE TOP

1 - 1　　2 - 2

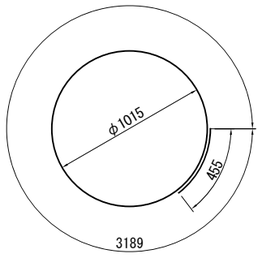


3 - 3





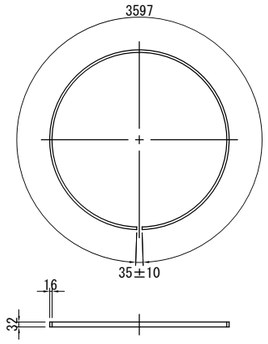
K2　9 - D13 × 4490



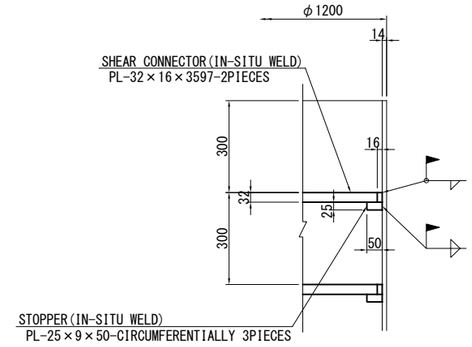
K3　5 - D13 × 3640

DETAIL OF ATTACHMENT OF SHEAR CONNECTOR

CENTER OF LENGTH



SETTING IN THE FIELD S=1:20



MATERIAL LIST

WEIGHT/EA.

MARKS	SECTION SIZE	LENGTH (mm)	NOS. OF BARS	UNIT WEIGHT (kg/m)	WEIGHT/EA. (kg)	WEIGHT (kg)	MATERIAL	REMARKS
PILE TOP ACCOMPANYING ITEMS								
PL	PL-32*16	3597	2	4.019	14.456	28.9	SS400	SHEAR CONNECTOR
PL	PL-25*9	50	6	1.766	0.088	0.5	SS400	STOPPER
REINFORCEMENT								
K1	D32	3110	12	6.23	19.38	233	SD345	|
K2	D13	4490	9	0.995	4.47	40	SD345	○
K3	D13	3640	5	0.995	3.62	18	SD345	○
Total						291		
FILLED CONCRETE　(σck = 24 N/mm^2)								
V = 1/4 × π × 1.172^2 × 1.600　=　1.726 m^3								

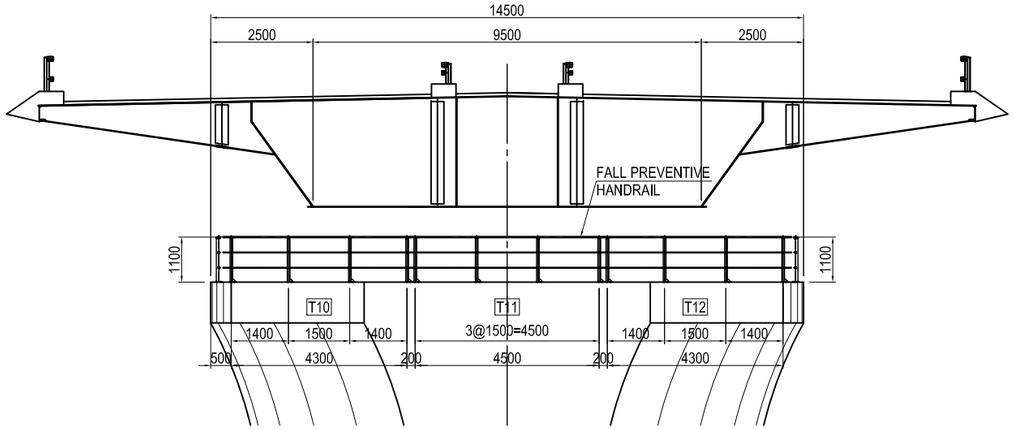
ITEM	DIVISION		UNIT CONTENT	WEIGHT/EA.	QUANTITY
NUMBER OF PILE			Number		8
PILE TOP	SS400	TOTAL	kg	29.4	235.2
REINFORCEMENT	SD345	D32	kg	233	1864
		D13	kg	58	464
		TOTAL	kg	291	2328
FILLED CONCRETE	σck = 24 N/mm^2		m^3	1.726	13.8

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.		

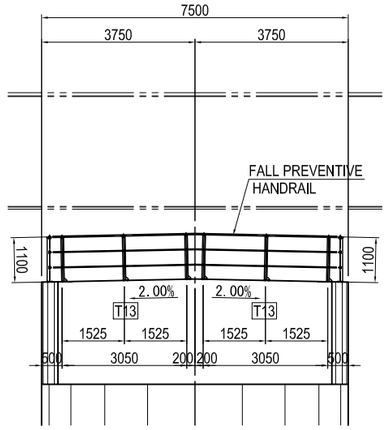
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田智雄	27. Nov.2017	DETAIL OF PILE TOP CONNECTION TO THE BASE CONCRETE OF P12 PIER	1
CHECKED BY	T. HAYAKAWA	午川和男	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野 雄一	29. Nov.2017		P1-CS-2229

FALL PREVENTIVE HANDRAIL OF P12 PIER (1) S=1:150

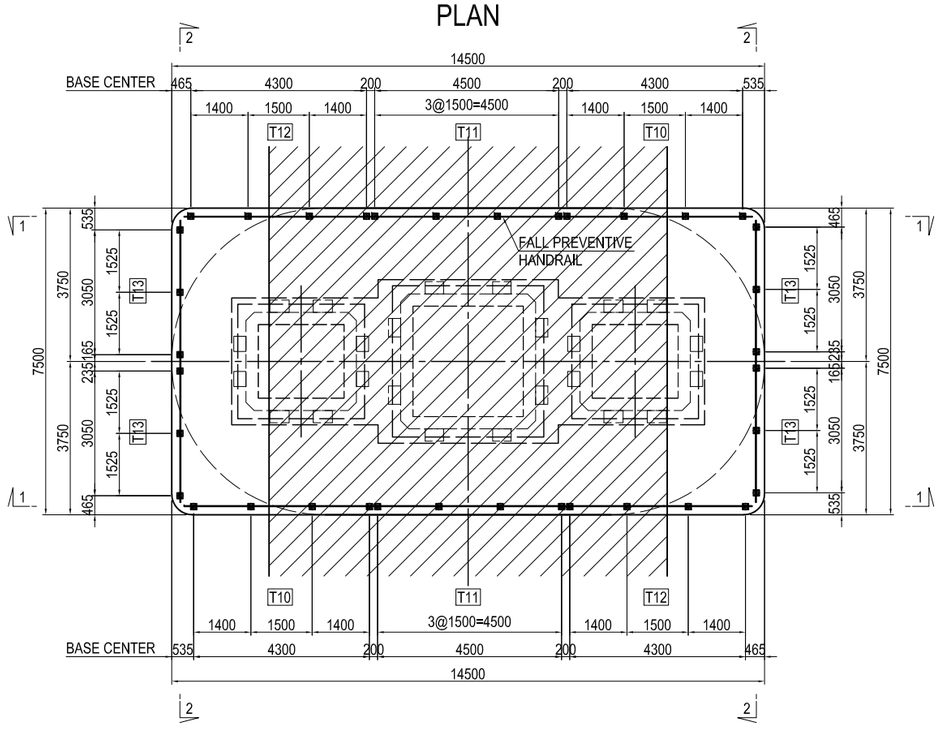
FRONT ELEVATION
1 - 1



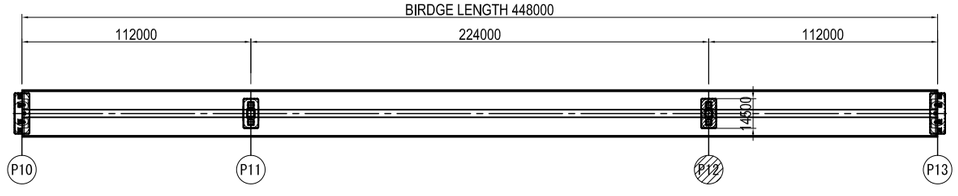
SIDE ELEVATION
2 - 2



PLAN



KEY PLAN

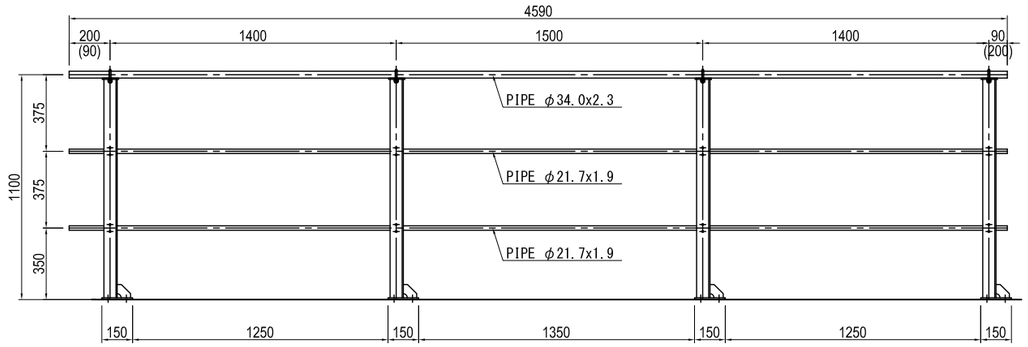


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	FALL PREVENTIVE HANDRAIL OF P12 PIER (1)	1
CHECKED BY	T. HAYAKAWA	早川知彦	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野佳一	29. Nov.2017		P1-CS-2230

FALL PREVENTIVE HANDRAIL OF P12 PIER (2) S=1:30

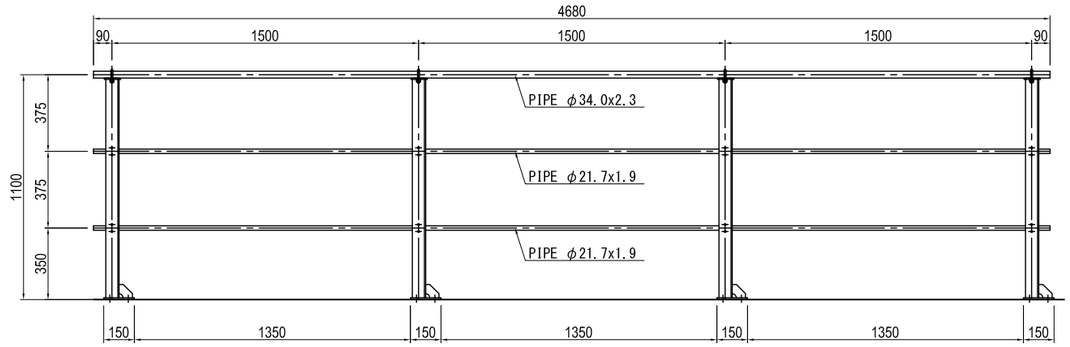
T10 (T12)



<T10, T12> Production volume : each2 (per pier)

1-PIPE φ34.0x2.3x4590 (STK400)	4-RIB PL 65x6x65 (SM400A)
2-PIPE φ21.7x1.9x4590 (STK400)	4-U.Bolt M10 Nominal25C
4-L 65x65x6x1069	8-U.Bolt M10 Nominal15C
4-PL 115x6x80 (SM400A)	16-Driving anchor M16x125
4-BASE PL 150x9x150 (SM400A)	

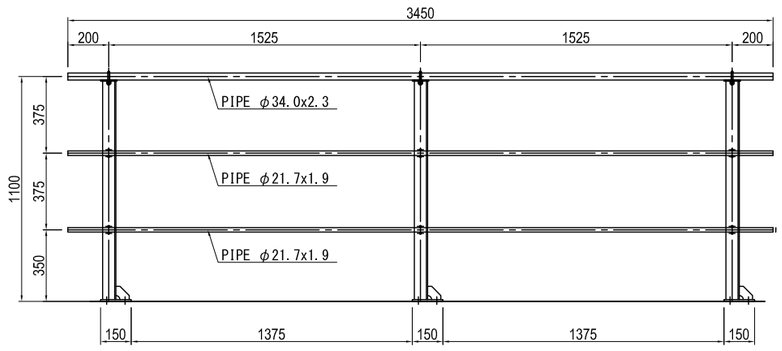
T11



<T11> Production volume : 2 (per pier)

1-PIPE φ34.0x2.3x4680 (STK400)	4-RIB PL 65x6x65 (SM400A)
2-PIPE φ21.7x1.9x4680 (STK400)	4-U.Bolt M10 Nominal25C
4-L 65x65x6x1069	8-U.Bolt M10 Nominal15C
4-PL 115x6x80 (SM400A)	16-Driving anchor M16x125
4-BASE PL 150x9x150 (SM400A)	

T13



<T13> Production volume : 4 (per pier)

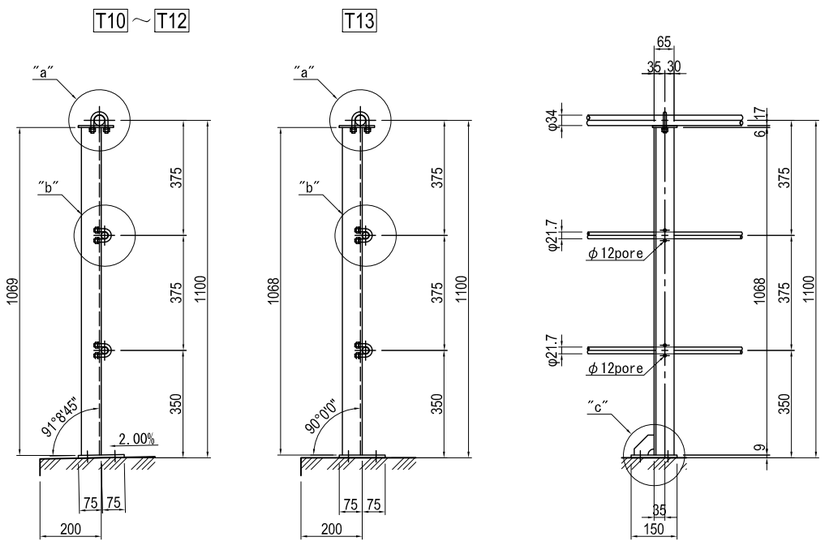
1-PIPE φ34.0x2.3x3450 (STK400)	3-RIB PL 65x6x65 (SM400A)
2-PIPE φ21.7x1.9x3450 (STK400)	3-U.Bolt M10 Nominal25C
3-L 65x65x6x1068	6-U.Bolt M10 Nominal15C
3-PL 115x6x80 (SM400A)	12-Driving anchor M16x125
3-BASE PL 150x9x150 (SM400A)	

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: 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	T.TOMODA	友田富雄	27. Nov.2017	FALL PREVENTIVE HANDRAIL OF P12 PIER (2)	1
CHECKED BY	T. HAYAKAWA	早川和男	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野裕一	29. Nov.2017		P1-CS-2231

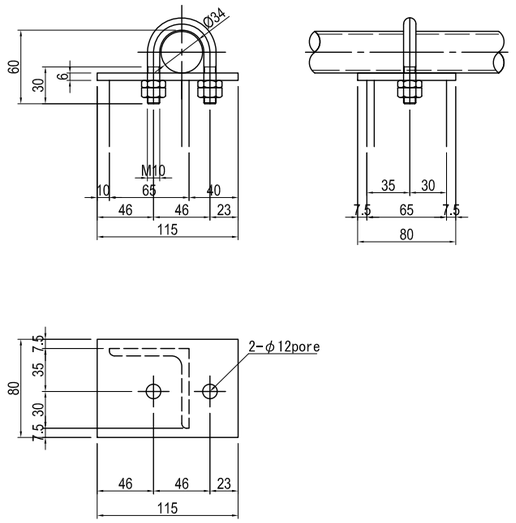
FALL PREVENTIVE HANDRAIL OF P12 PIER (3) S=1:20

DETAIL OF HANDRAIL S=1:20



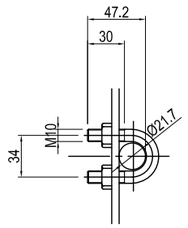
"a" DETAIL S=1:5

U.Bolt Nominal 25C

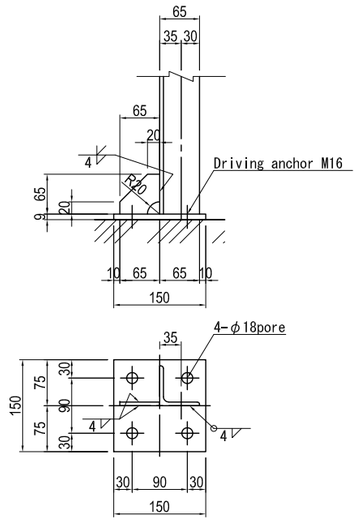


"b" DETAIL S=1:5

U.Bolt Nominal 15C



"c" DETAIL S=1:10



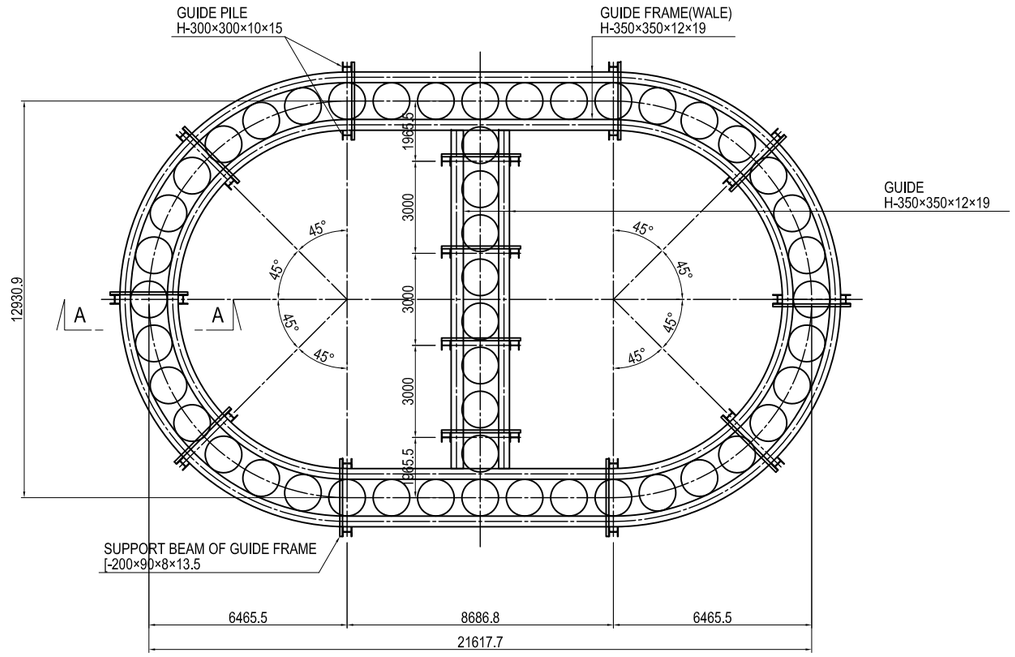
Note） 1 All materials without special mention are SS400.
2 The surface treatment of the steel member is hot-dip galvanized.
（The amount of zinc deposition shall be JIS H 8641 2 type HDZ 55.
However, bolts and nuts and members with a thickness
of less than 3.2 mm shall be HDZ35.）

PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: 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.		

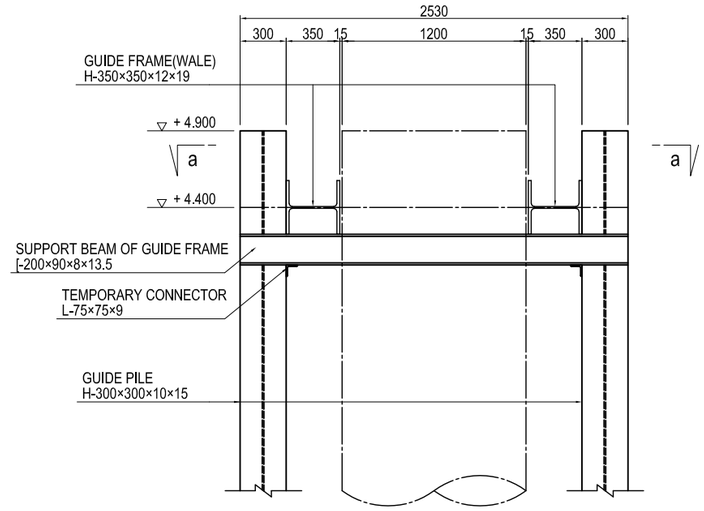
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T.TOMODA	友田富雄	27. Nov.2017	FALL PREVENTIVE HANDRAIL OF P12 PIER (3)	1
CHECKED BY	T. HAYAKAWA	早川知夫	28. Nov.2017		DWG No.
APPROVED BY	Y. SANO	佐野佐一	29. Nov.2017		P1-CS-2232

(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P12 PIER（1）

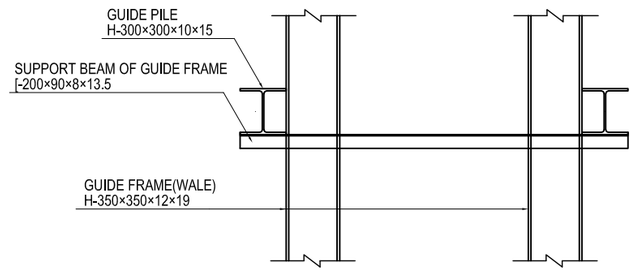
LAYOUT PLAN OF GUIDE FRAMES AND GUIDE PILES S=1:200



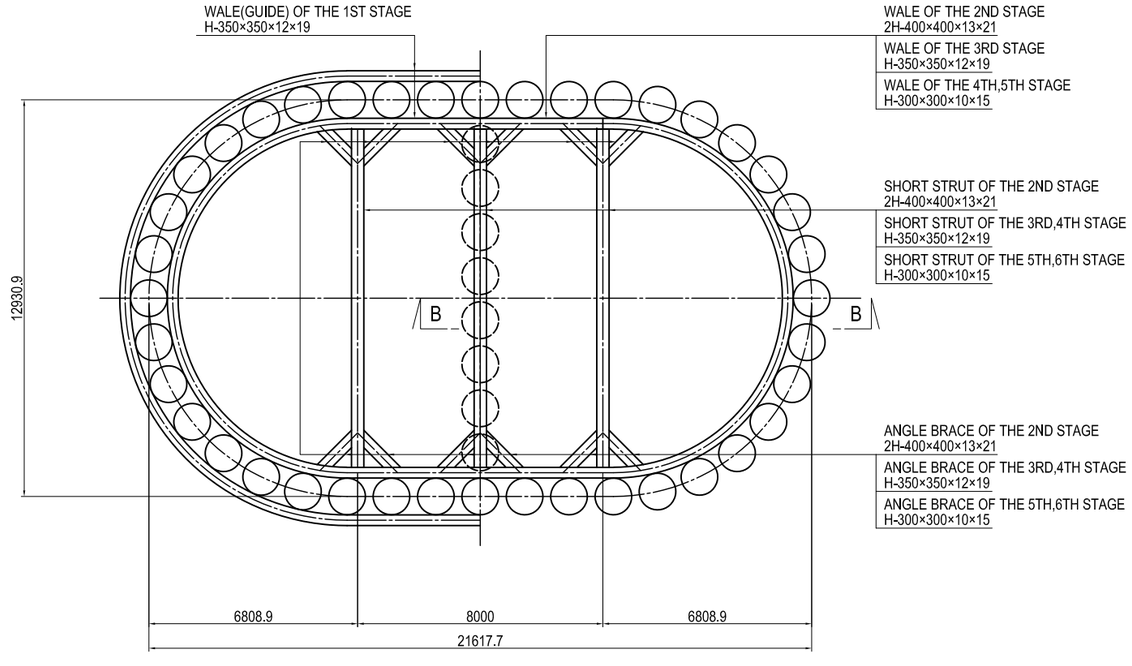
DETAIL OF ATTACHMENT OF GUIDE PILES AND GUIDE FRAMES S=1:40



a - a



LAYOUT PLAN OF STRUTS AND WALES S=1:200

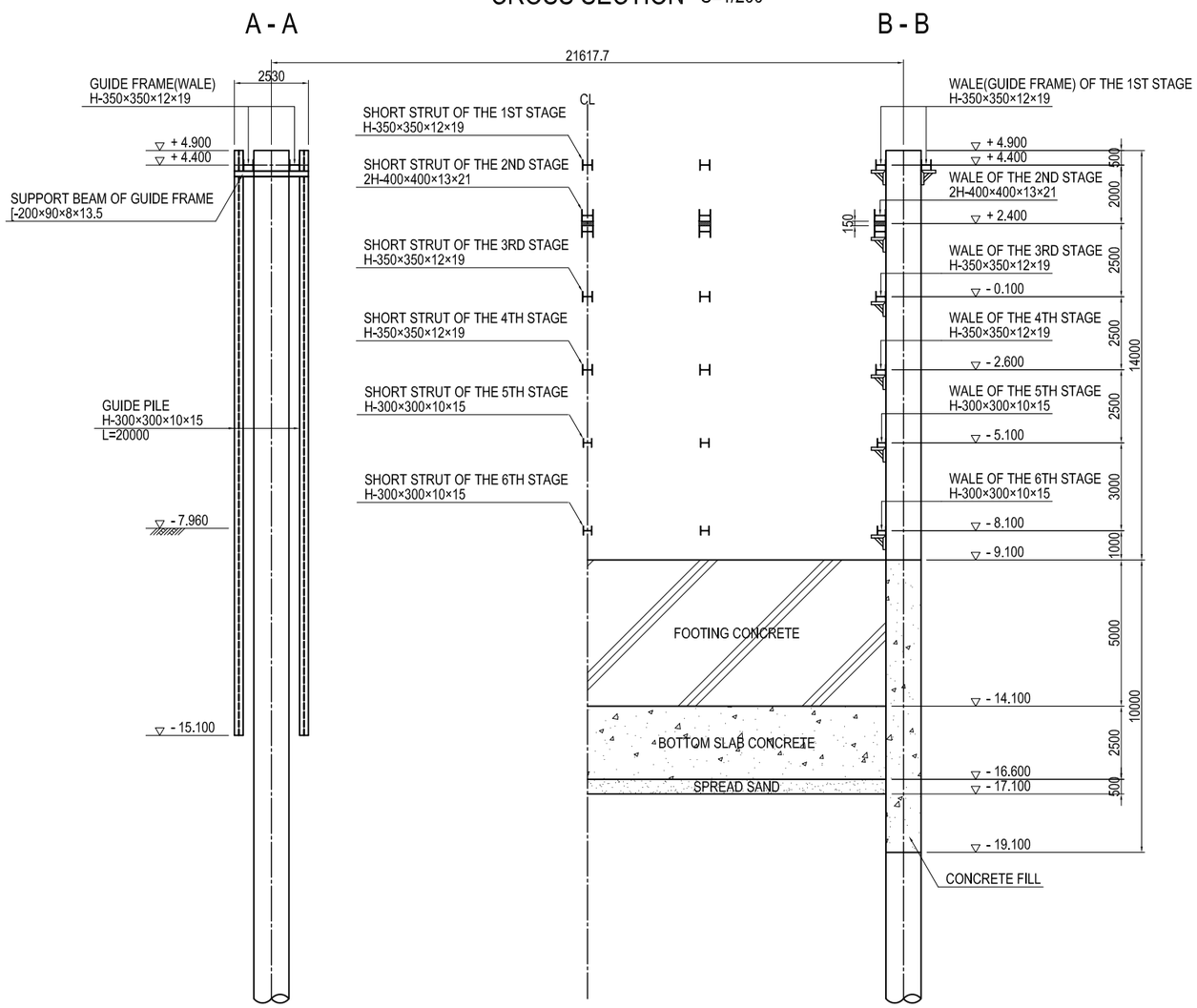


PROJECT NAME: DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY: JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART: REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM: NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.		

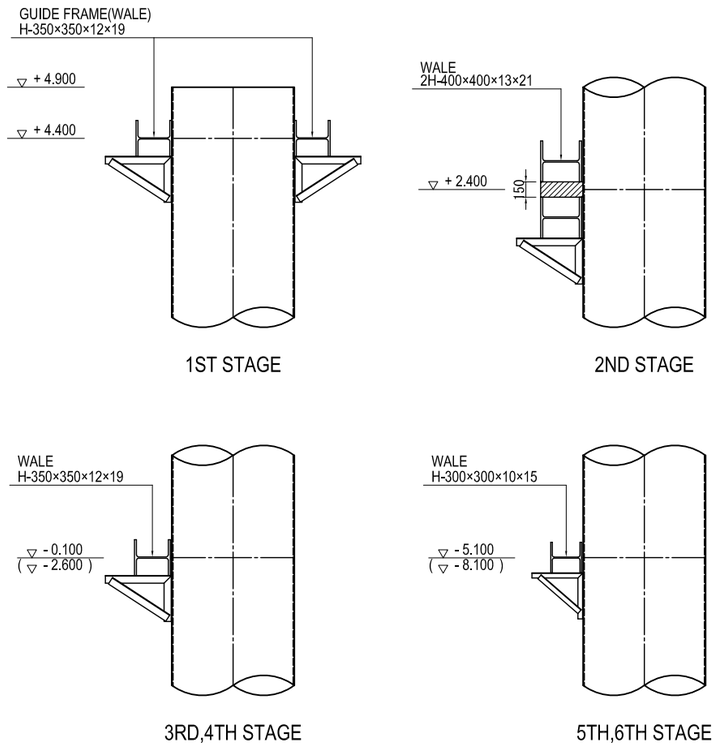
	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T. HAYAKAWA		27. Nov.2017	(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P12 PIER (1)	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2233

(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P12 PIER（2）

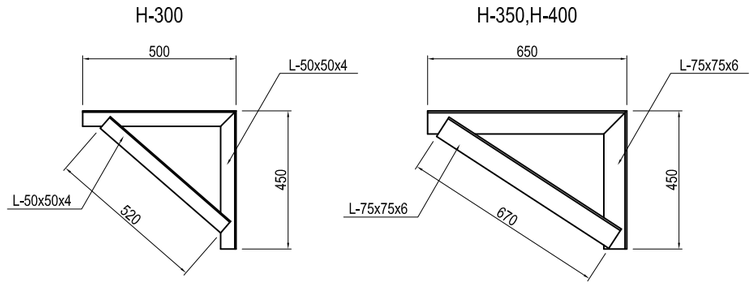
CROSS SECTION S=1/200



DETAIL OF ATTACHMENT OF WALE S=1:60



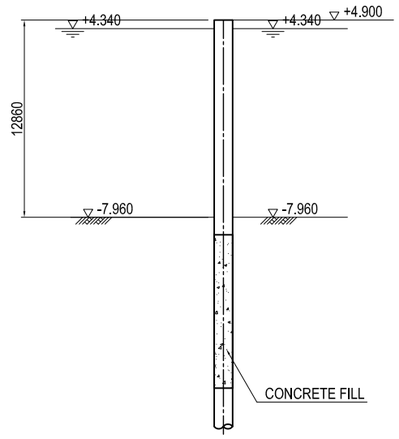
DETAIL OF BRACKET S=1:20



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	T. HAYAKAWA		27. Nov.2017	(REFERENCE) LAYOUT PLAN OF COFFERDAM PART OF P12 PIER (2)
CHECKED BY	T. HAYAKAWA		28. Nov.2017	DWG No. P1-CS-2234
APPROVED BY	Y. SANO		29. Nov.2017	PACKAGE 1

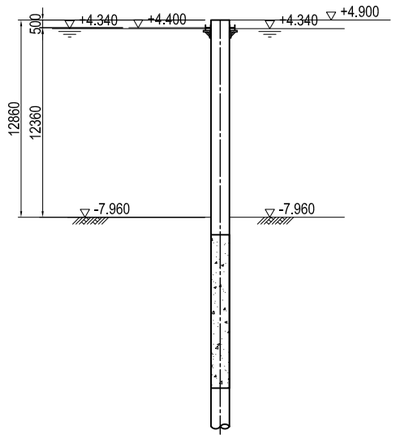
(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P12 PIER（1） S=1:400

STEP 1



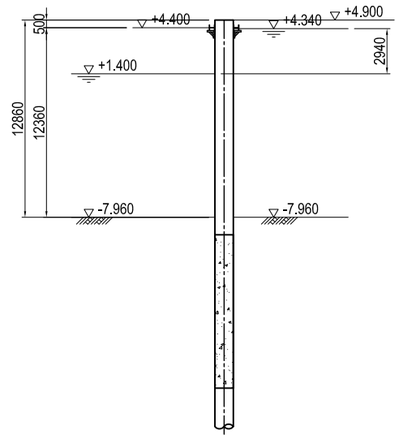
Excavate inside of exterior sheet pilles and filled with concrete as shown.

STEP 2



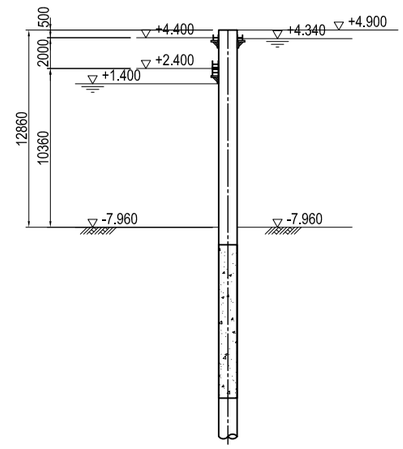
The 1st support Installation.

STEP 3



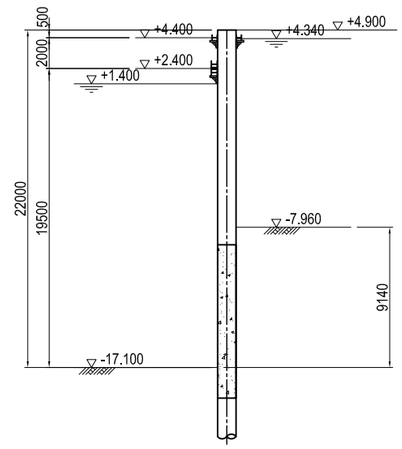
Draining the inside of cofferdam up to +1.400m level.

STEP 4



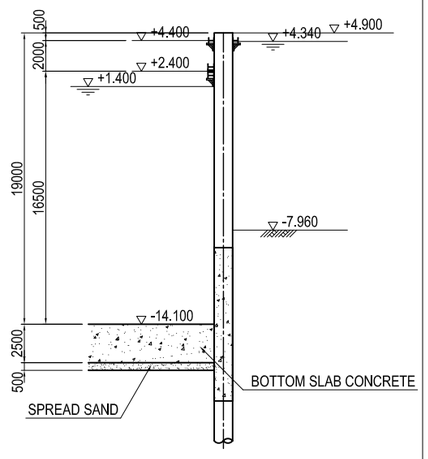
The 2nd support Installation.

STEP 5



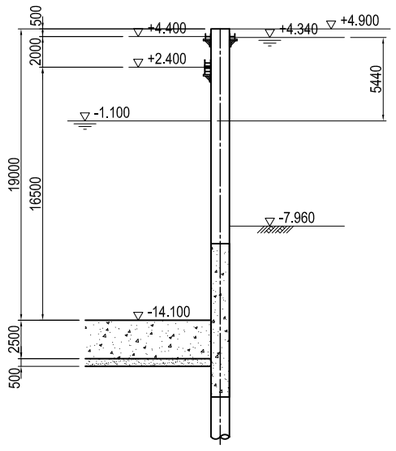
Underwater excavation up to -17.100m level.

STEP 6



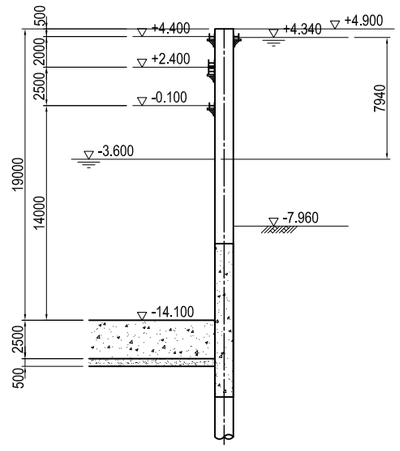
Placement of spread sand followed by casting undeawater bottom slab concrete.

STEP 7



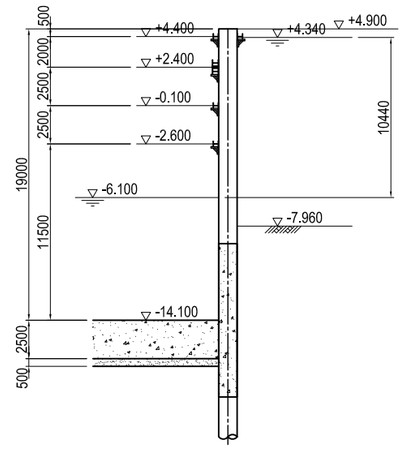
Draining the inside of cofferdam up to -1.100m level.

STEP 8



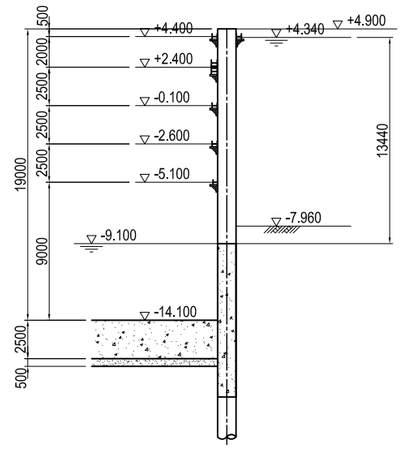
Draining the inside of cofferdam up to -3.600m level.
after the 3rd support Installation.

STEP 9



Draining the inside of cofferdam up to -6.100m level.
after the 4th support Installation.

STEP 10



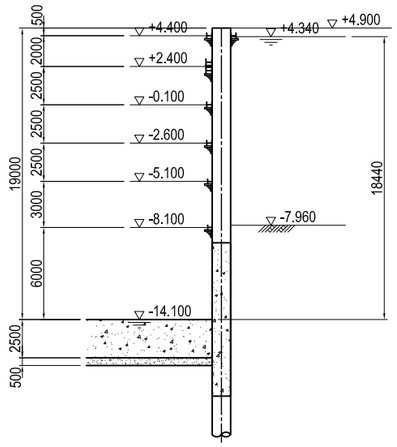
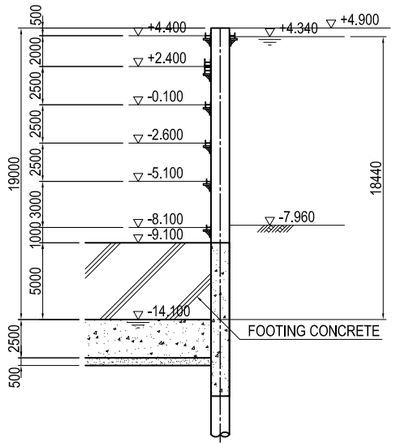
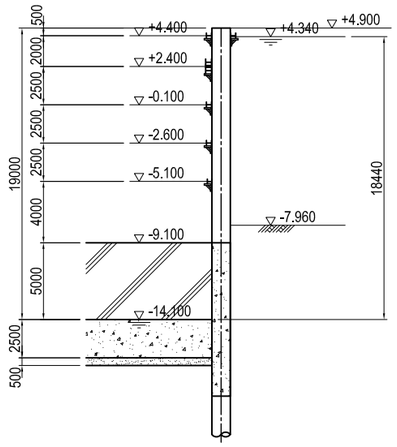
Draining the inside of cofferdam up to -9.100m level.
after the 5th support Installation.

Note : This drawing can be used for reference only.

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	
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.	

	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
PREPARED BY	T. HAYAKAWA		27. Nov.2017	(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P12 PIER（1）	1
CHECKED BY	T. HAYAKAWA		28. Nov.2017		DWG No.
APPROVED BY	Y. SANO		29. Nov.2017		P1-CS-2235

(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P12 PIER（2） S=1:400

STEP 11	STEP 12	STEP 13		
				
Draining the inside of cofferdam up to -14.100m level. after the 6th support Installation.	Casting of footing concrete.	The 6th support Removal.		

Note : This drawing can be used for reference only.

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	T. HAYAKAWA		27. Nov.2017
				CHECKED BY	T. HAYAKAWA		28. Nov.2017
				APPROVED BY	Y. SANO		29. Nov.2017

DRAWING TITLE	PACKAGE
(REFERENCE) CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK OF P12 PIER（2）	1
	DWG No.
	P1-CS-2236