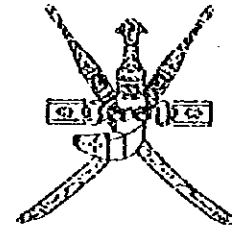


**SULTANATE OF OMAN**  
**MINISTRY OF COMMUNICATIONS**  
**DIRECTORATE GENERAL OF ROADS**



**CONSTRUCTION OF PEDESTRIAN UNDERPASS**  
**AT**  
**KHOR A'SIYABI**  
**BATINAH HIGHWAY**

**TENDER DOCUMENT**

**DRAWINGS**

JICA LIBRARY



J 1140571 (9)

PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

March, 1997

SSF
CR(5)
97-015

THE UNIVERSITY OF CHICAGO LIBRARY



1140571 (9)

MAINTENANCE

REPAIRS

CHICAGO

11/14/76

UNIVERSITY OF CHICAGO LIBRARY  
5408 S. UNIVERSITY AVE. CHICAGO, ILL. 60637

**DRAWING SCHEDULE**  
**(PU10-KHOR A'SIYABI PEDESTRIAN UNDERPASS)**

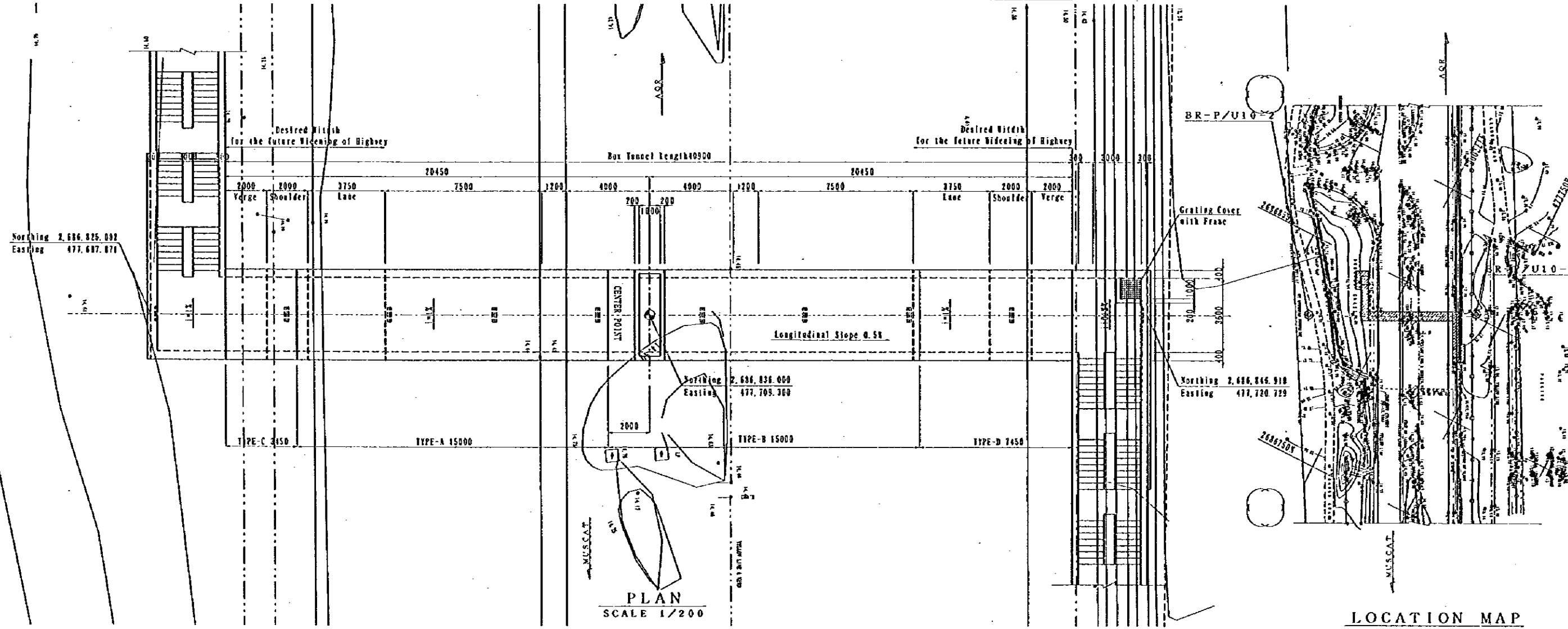
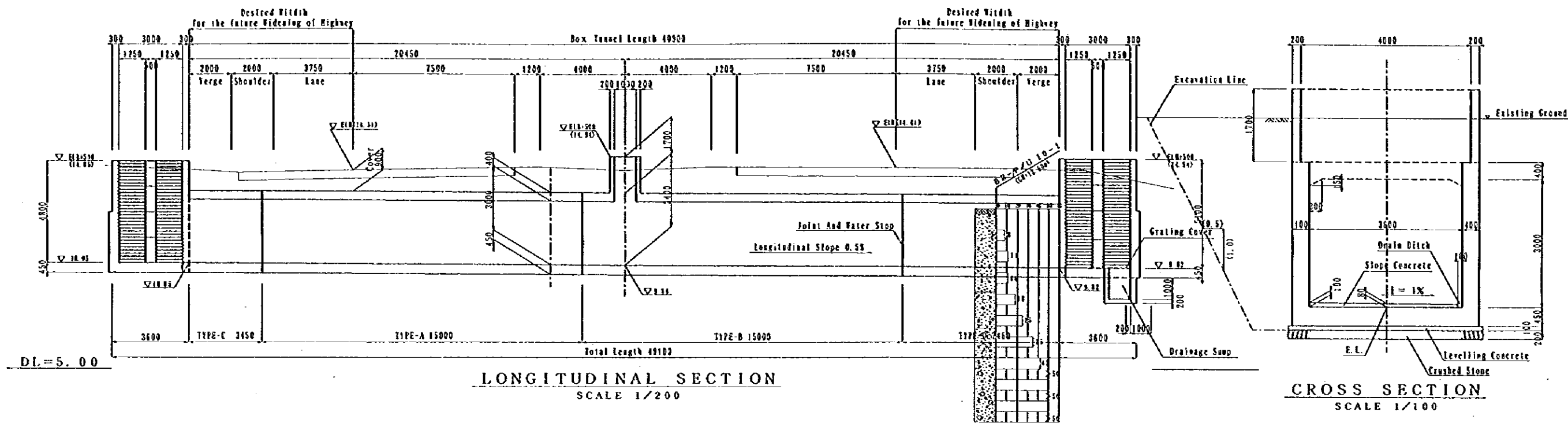
SHEET NO.	DRAWING TITLE
<b>G</b>	
G - 1	<b>GENERAL</b> Drawing Schedule
<b>P</b>	
P - 1	<b>PEDESTRIAN UNDERPASS</b> General View (1)
P - 2	General View (2)
P - 3	General View (3)
P - 4	Re-bar Arrangement (1)
P - 5	Re-bar Arrangement (2)
P - 6	Re-bar Arrangement (3)
P - 7	Re-bar Arrangement (4)
P - 8	Re-bar Arrangement (5)
P - 9	Re-bar Arrangement (6)
P - 10	Re-bar Arrangement (7)
P - 11	Re-bar Arrangement (8)
P - 12	Re-bar Arrangement (9)
P - 13	Re-bar Arrangement (10)
<b>T</b>	
T - 1	<b>TEMPORARY WORKS</b> Construction Sequence
T - 2	Detour Layout

NOTES:

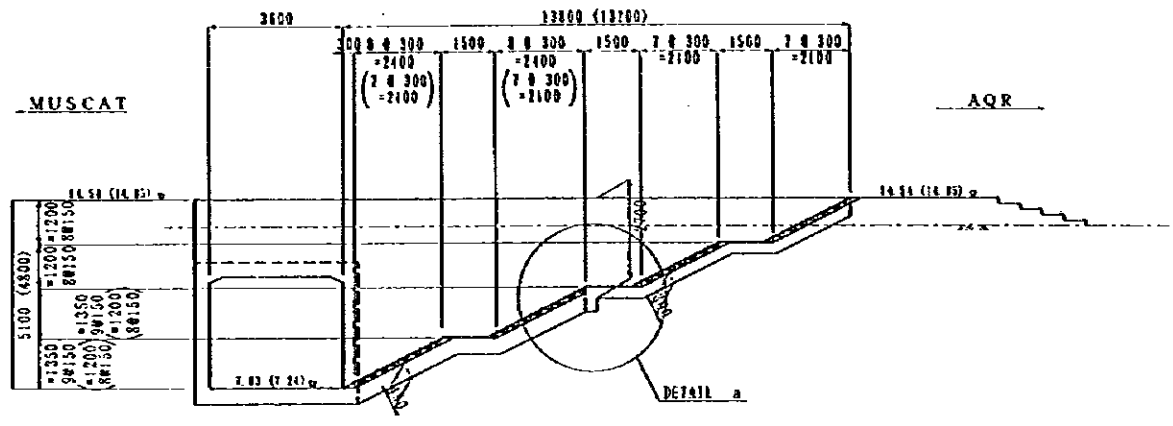
JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
 PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
 TITLE : PU-10, KHOR A'SIYABI DRAWING SCHEDULE  
 DATE : DWG NO. G-1

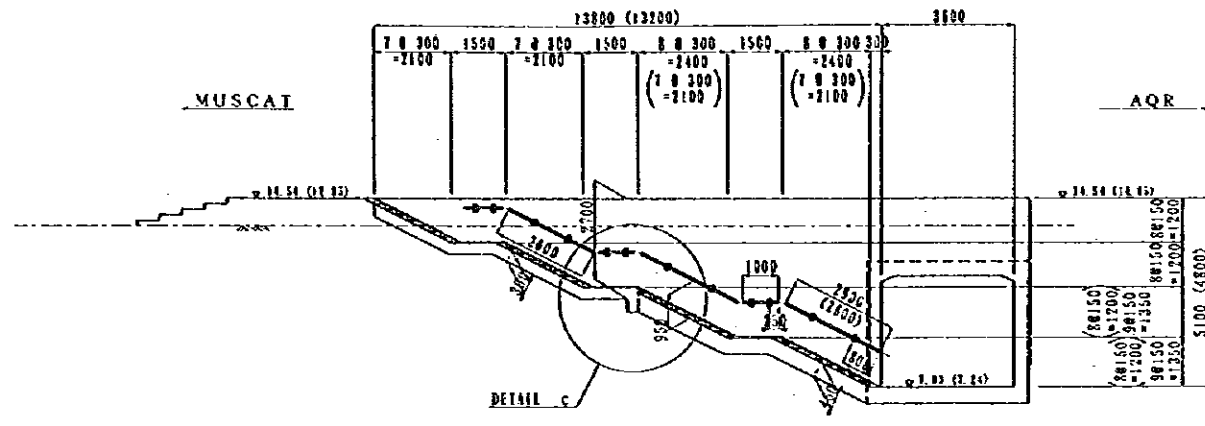
311405719



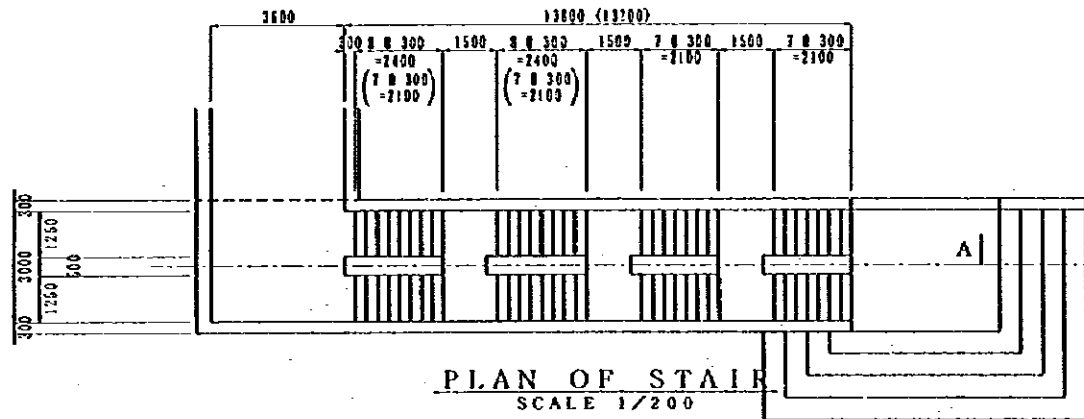
NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL ELUYANA CONSULTANTS INTERNATIONAL	PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		TITLE : P/U-10, KHOR A' SIYABI GENERAL VIEW (I)
		DATE : _____ DWG NO. P - 1



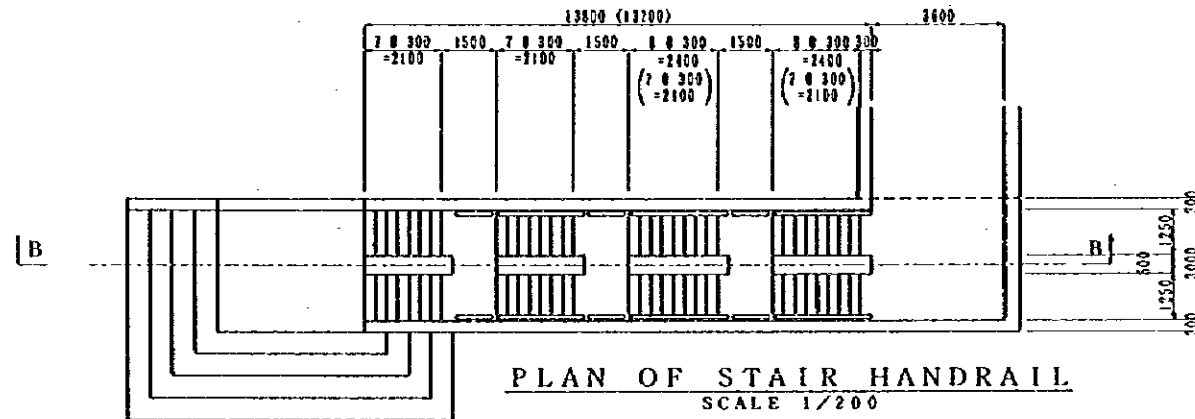
STAIR (SECTION A-A)  
SCALE 1/200



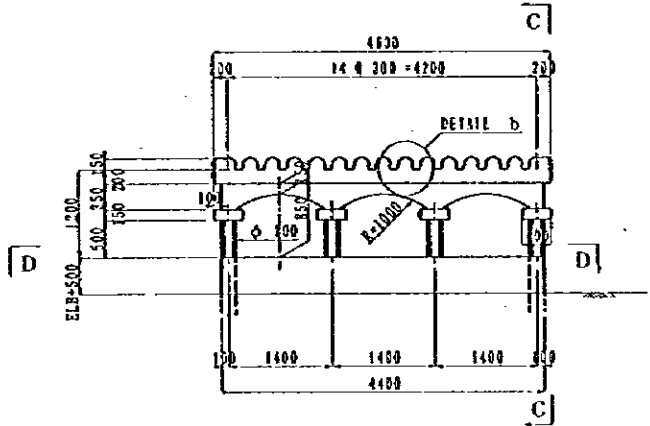
STAIR HANDRAIL (SECTION B-B)  
SCALE 1/200



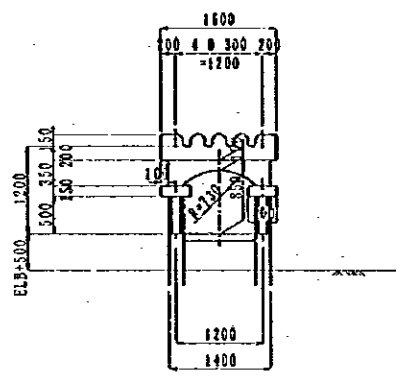
PLAN OF STAIR  
SCALE 1/200



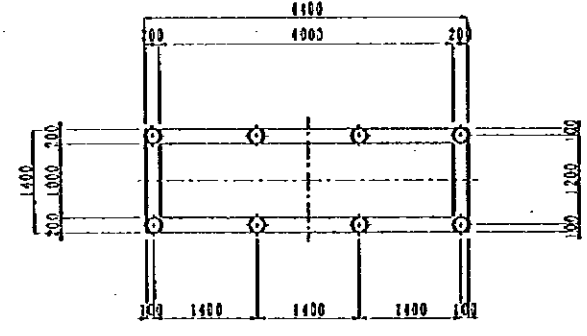
PLAN OF STAIR HANDRAIL  
SCALE 1/200



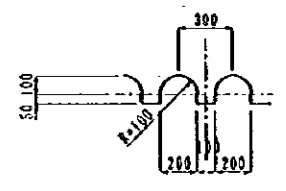
SIDE ELEVATION  
SCALE 1/100



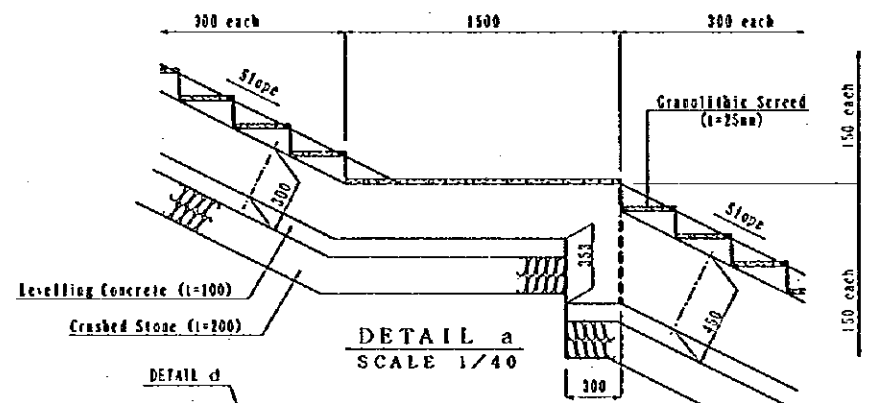
SECTION C-C  
SCALE 1/100



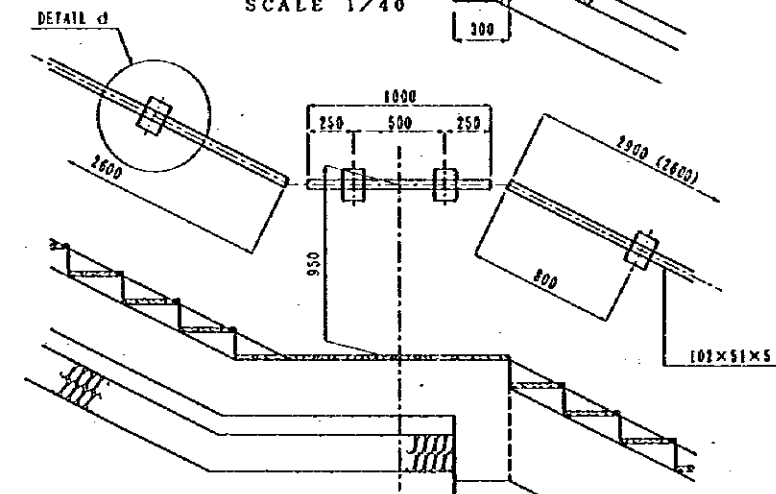
SECTION D-D  
SCALE 1/100



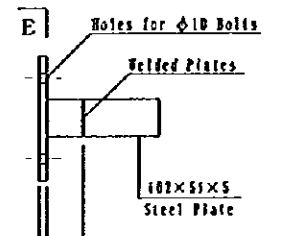
DETAIL b  
SCALE 1/40



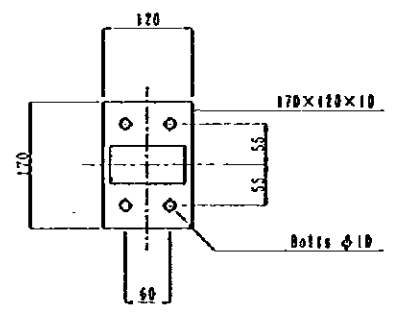
DETAIL a  
SCALE 1/40



DETAIL c  
SCALE 1/40



DETAIL d  
SCALE 1/10



SECTION E-E  
SCALE 1/10

NOTES: Dimensions of ( ) value are for inland stair.

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)

JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUJYAMA CONSULTANTS INTERNATIONAL

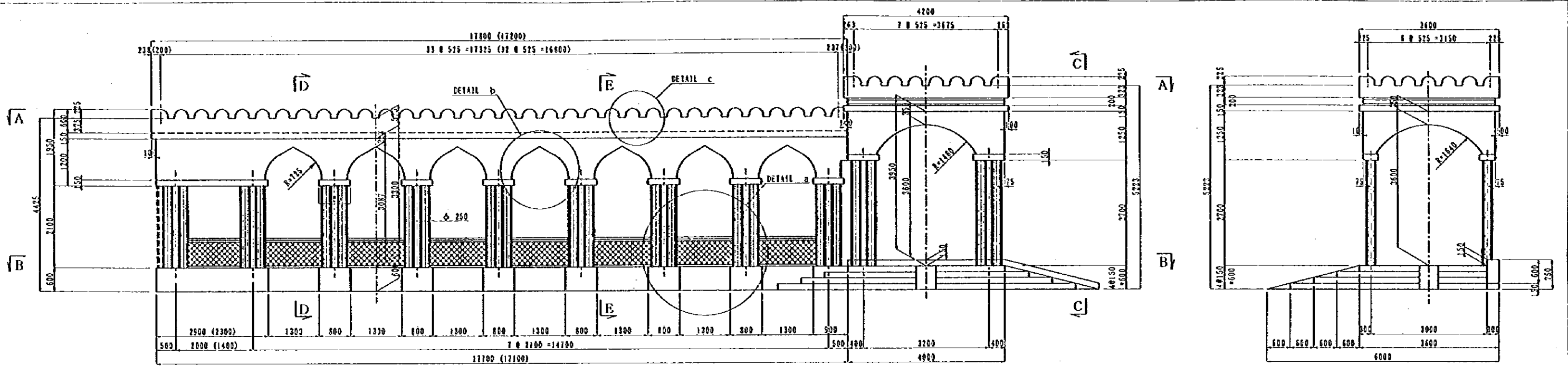
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : P/U-10, KHOR A' SIYABI GENERAL VIEW (2)

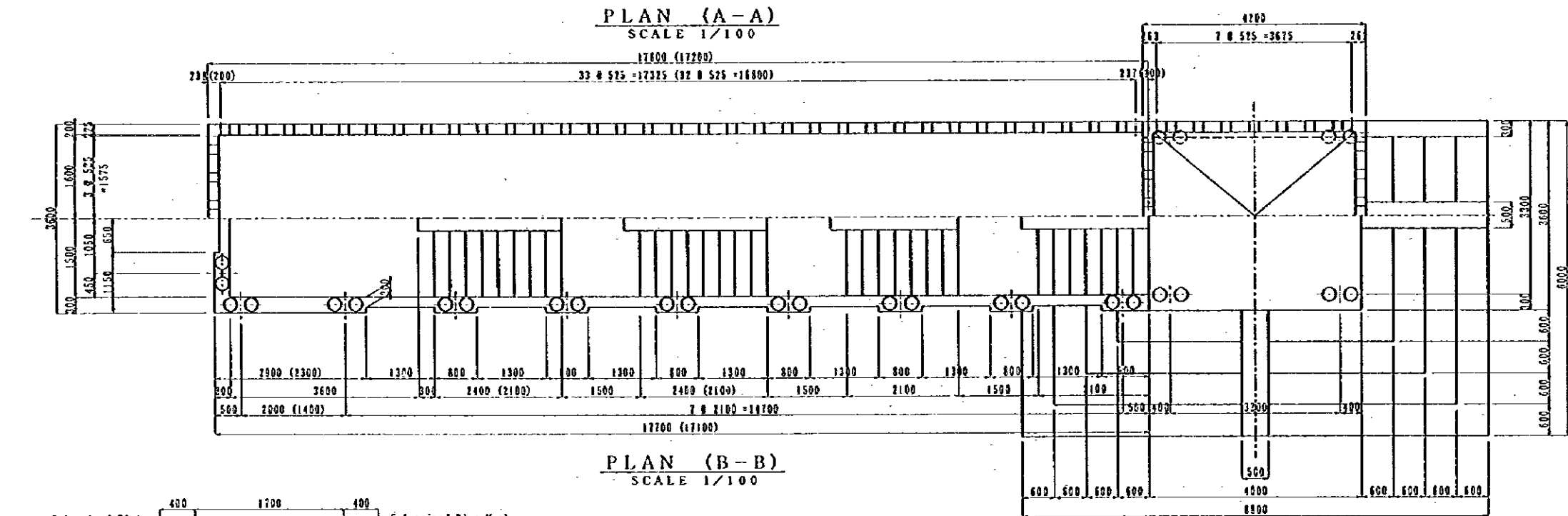
DATE

DWG NO. P-2



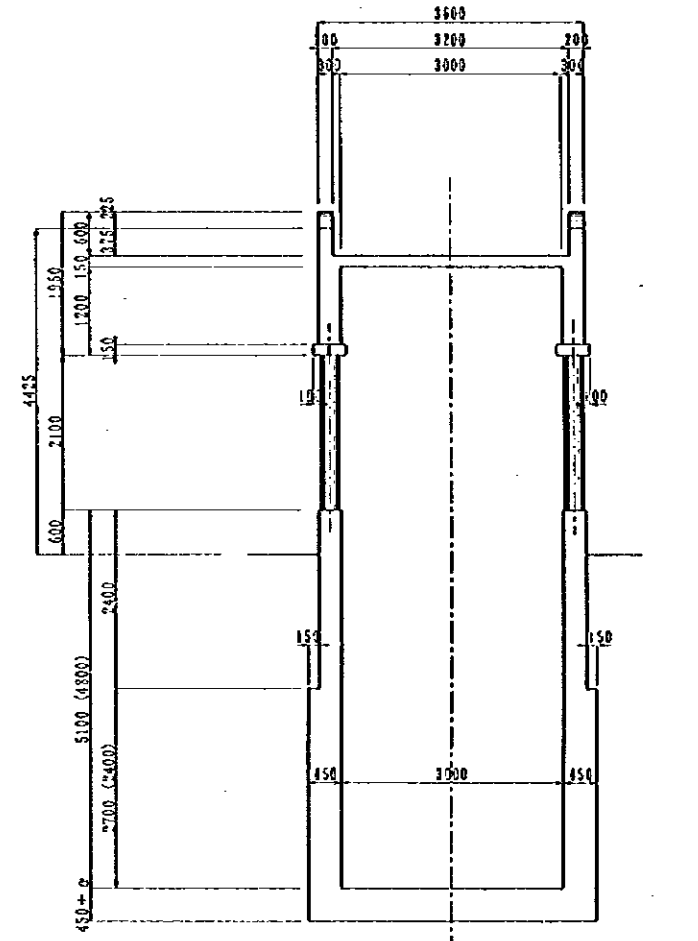
**PROFILE OF CANOPY**  
SCALE 1/100

**ENTRANCE (C-C)**  
SCALE 1/100



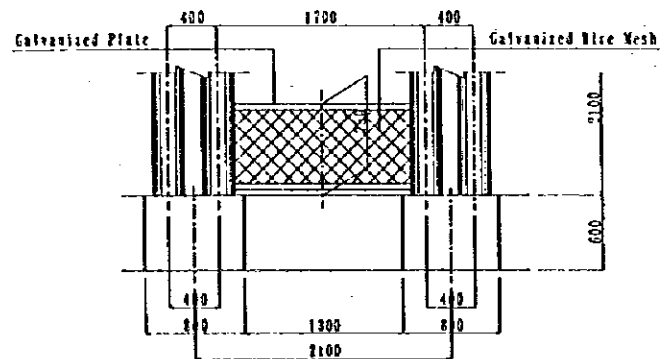
**PLAN (A-A)**  
SCALE 1/100

**PLAN (B-B)**  
SCALE 1/100

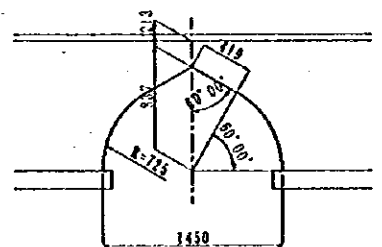


**CROSS SECTION E-E**  
SCALE 1/100

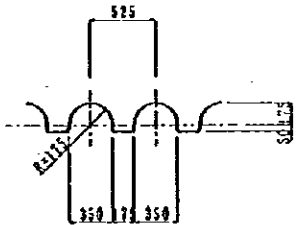
**CROSS SECTION D-D**  
SCALE 1/100



**DETAIL a**  
SCALE 1/60



**DETAIL b**  
SCALE 1/60

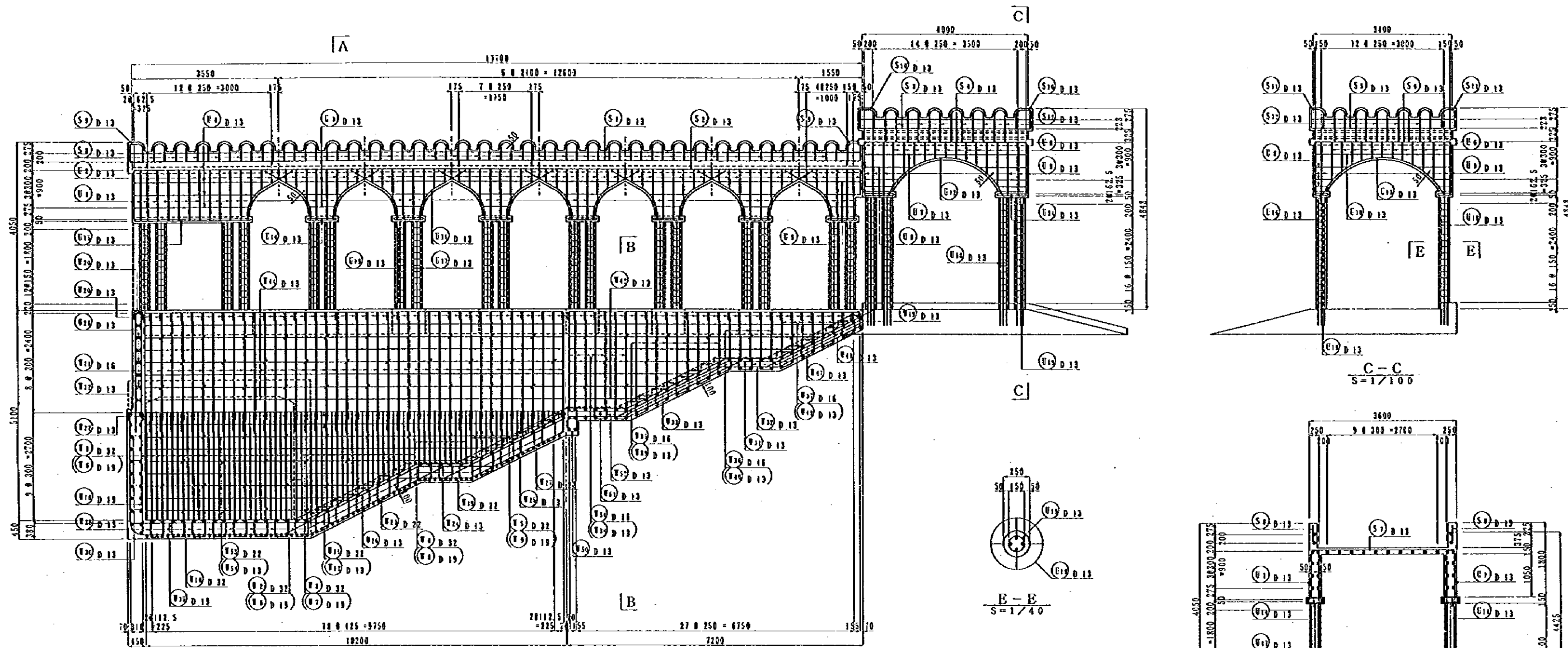


**DETAIL c**  
SCALE 1/60

NOTES: Dimensions of ( ) value are for inland stair.

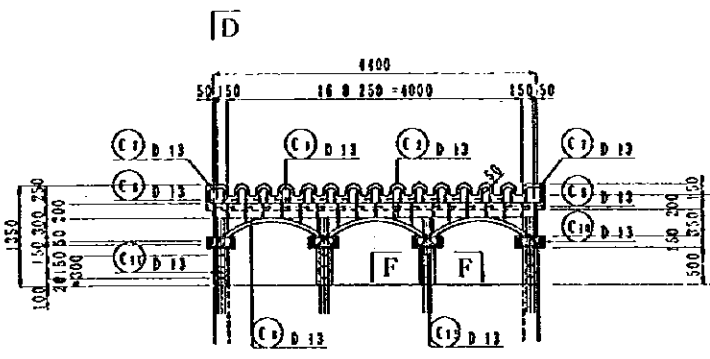
JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-10, KHOR A' SIYABI GENERAL VIEW (3)  
DATE : \_\_\_\_\_ DWG NO. P-3

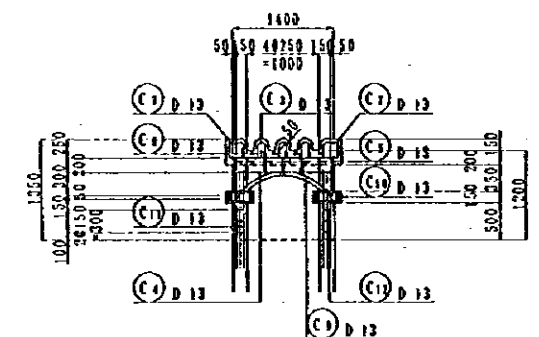


**A** SIDE VIEW  
S=1/100

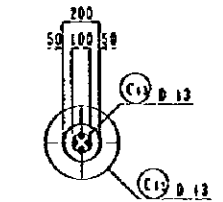
**E-E**  
S=1/40



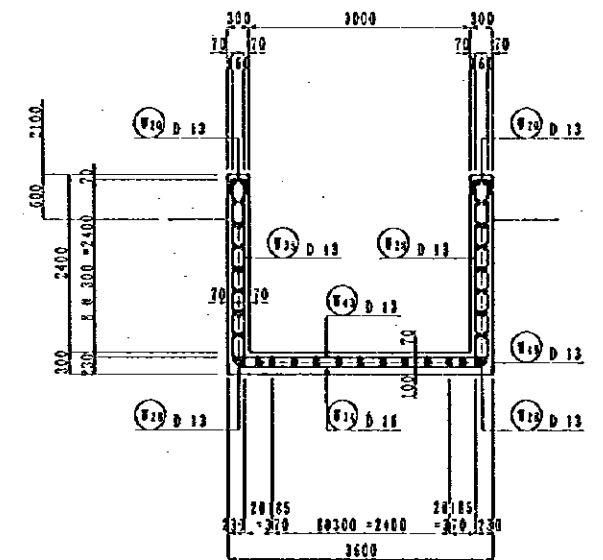
**D** CANOPY ON LIGHT  
S=1/100



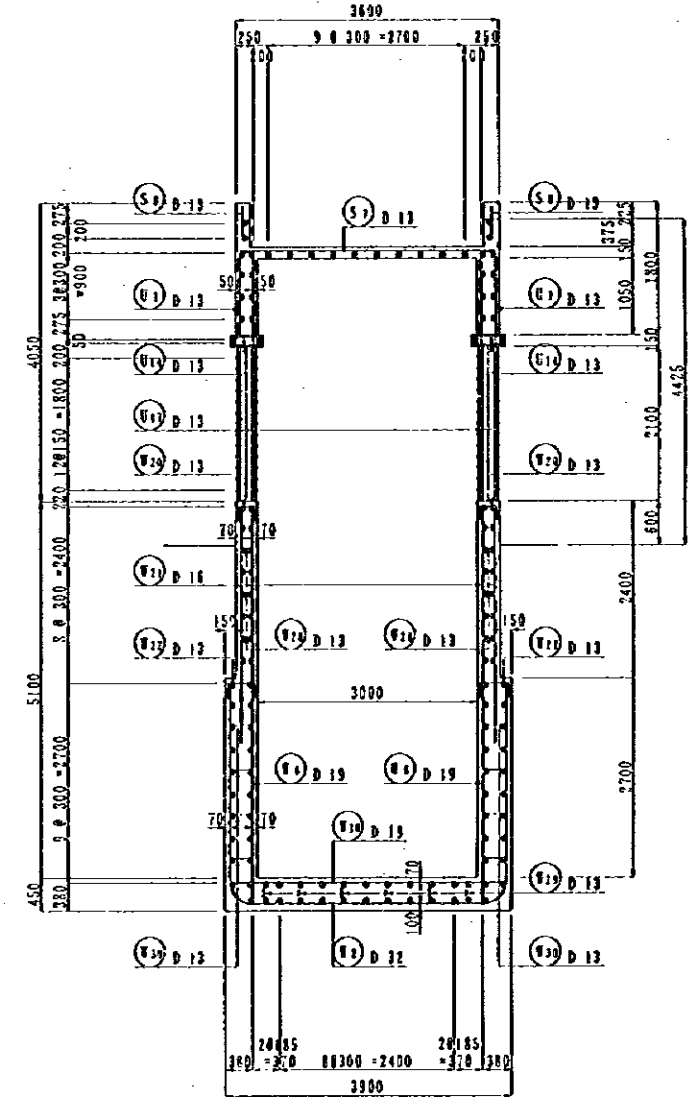
**D-D**  
S=1/100



**F-F**  
S=1/40



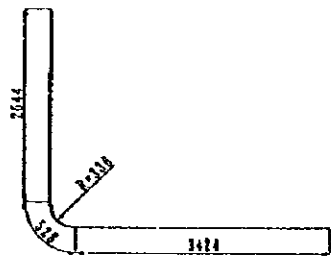
**B-B**  
S=1/100



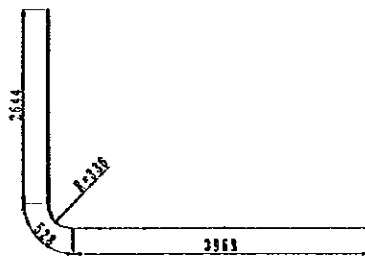
**A-A**  
S=1/100

NOTES:	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FLUKYAMA CONSULTANTS INTERNATIONAL	PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		TITLE : P/U-10, KHOR A' SIYABI RE-BAR ARRANGEMENT (I)
		DATE : _____ DWG NO. P-4

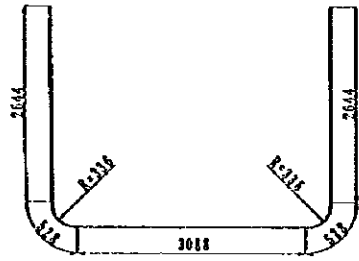




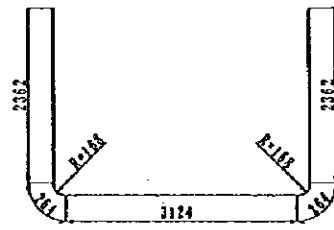
W1 19-D32 x 6 600



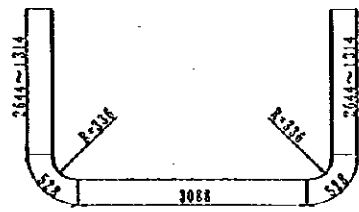
W2 30-D32 x 7 140



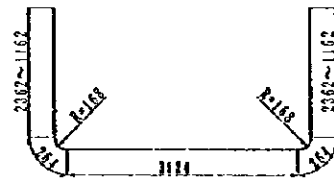
W3 2-D32 x 9 400



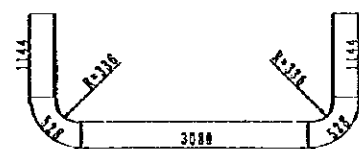
W4 7-D16 x 8 300



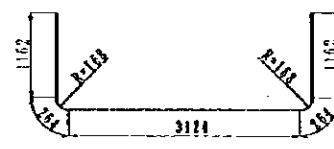
W5 22-D32 x 8 110



W6 9-D16 x 7 180



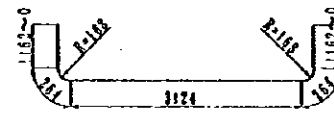
W7 10-D32 x 6 400



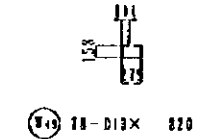
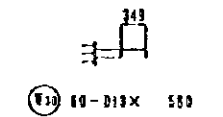
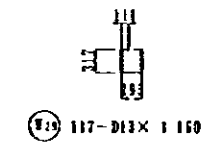
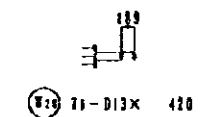
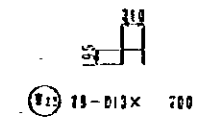
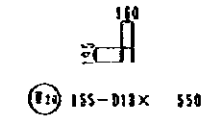
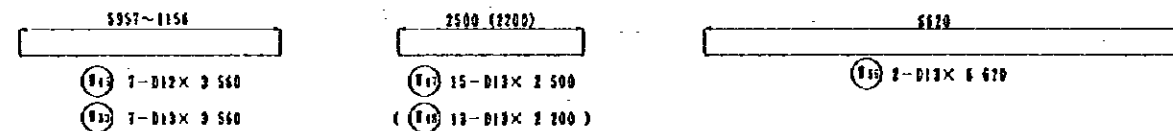
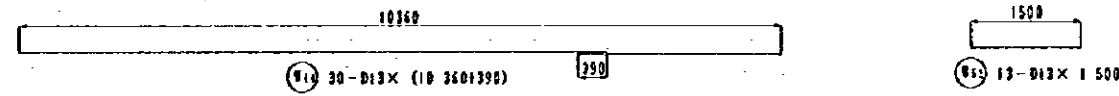
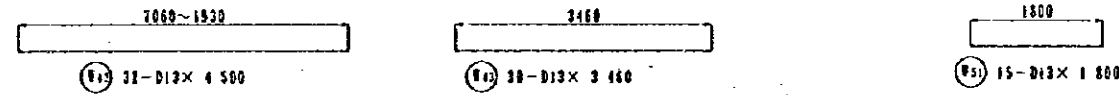
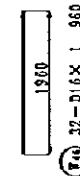
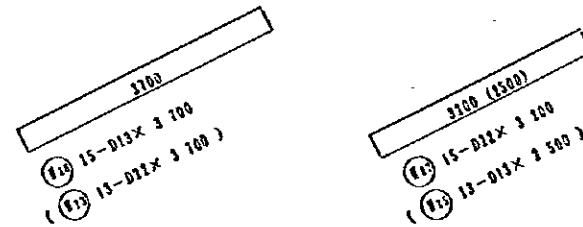
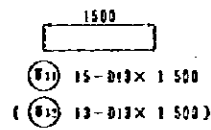
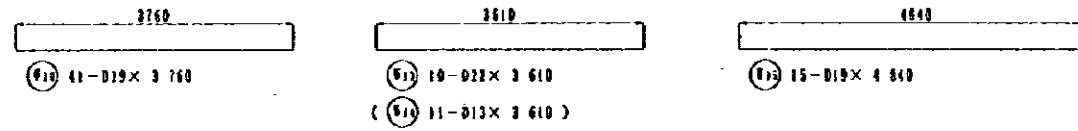
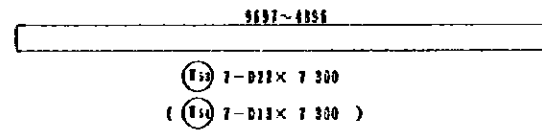
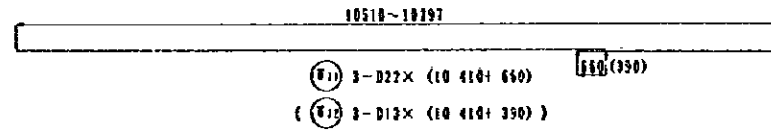
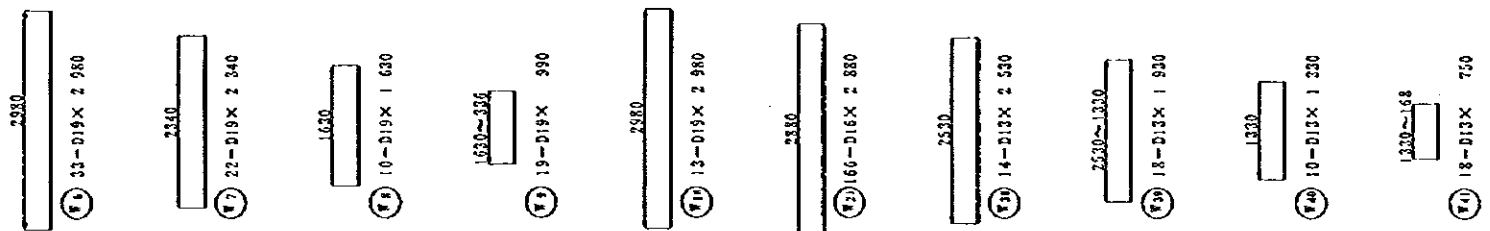
W8 5-D16 x 5 900



W9 18-D32 x 5 250



W10 9-D16 x 4 820



NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

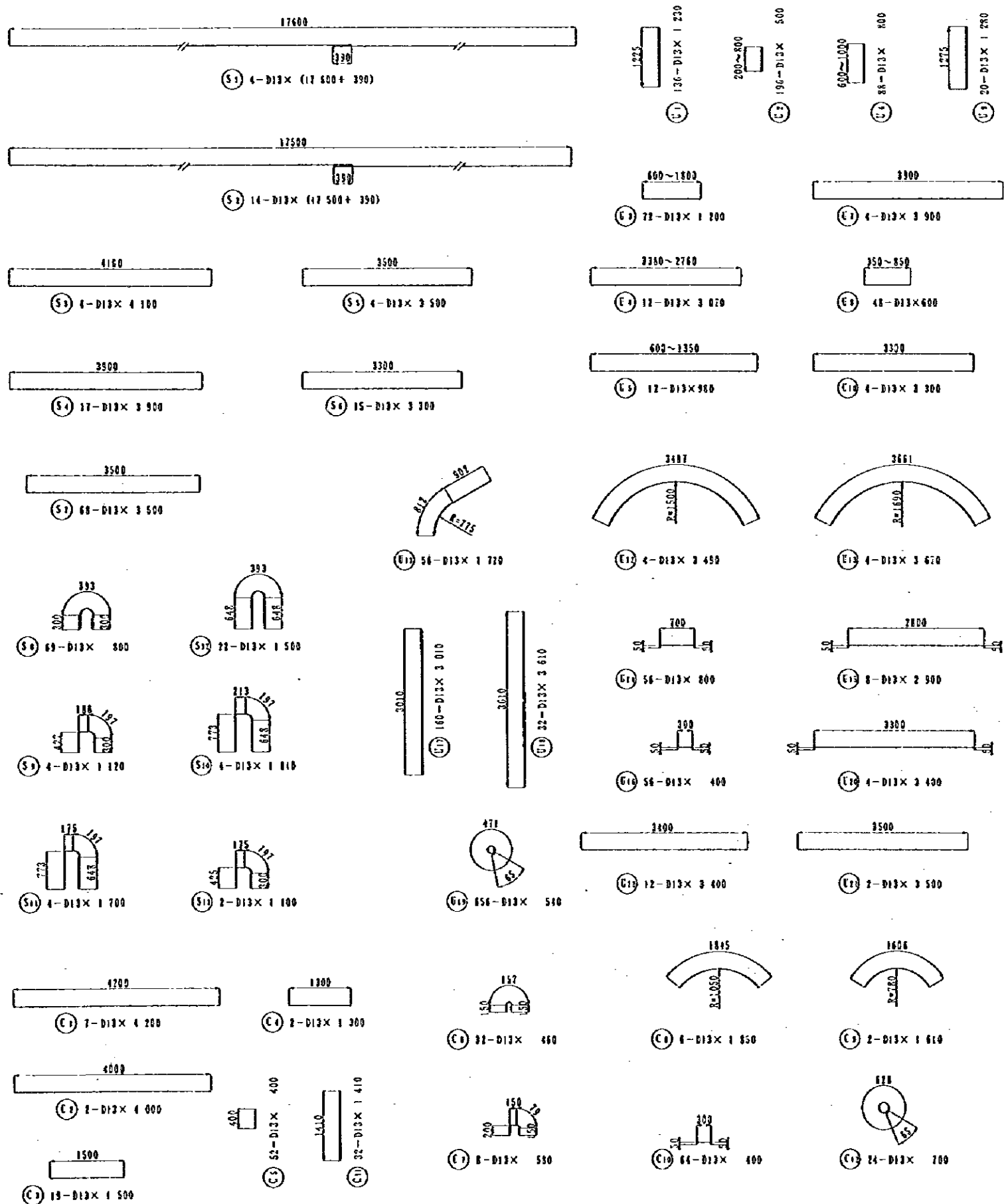
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUJUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

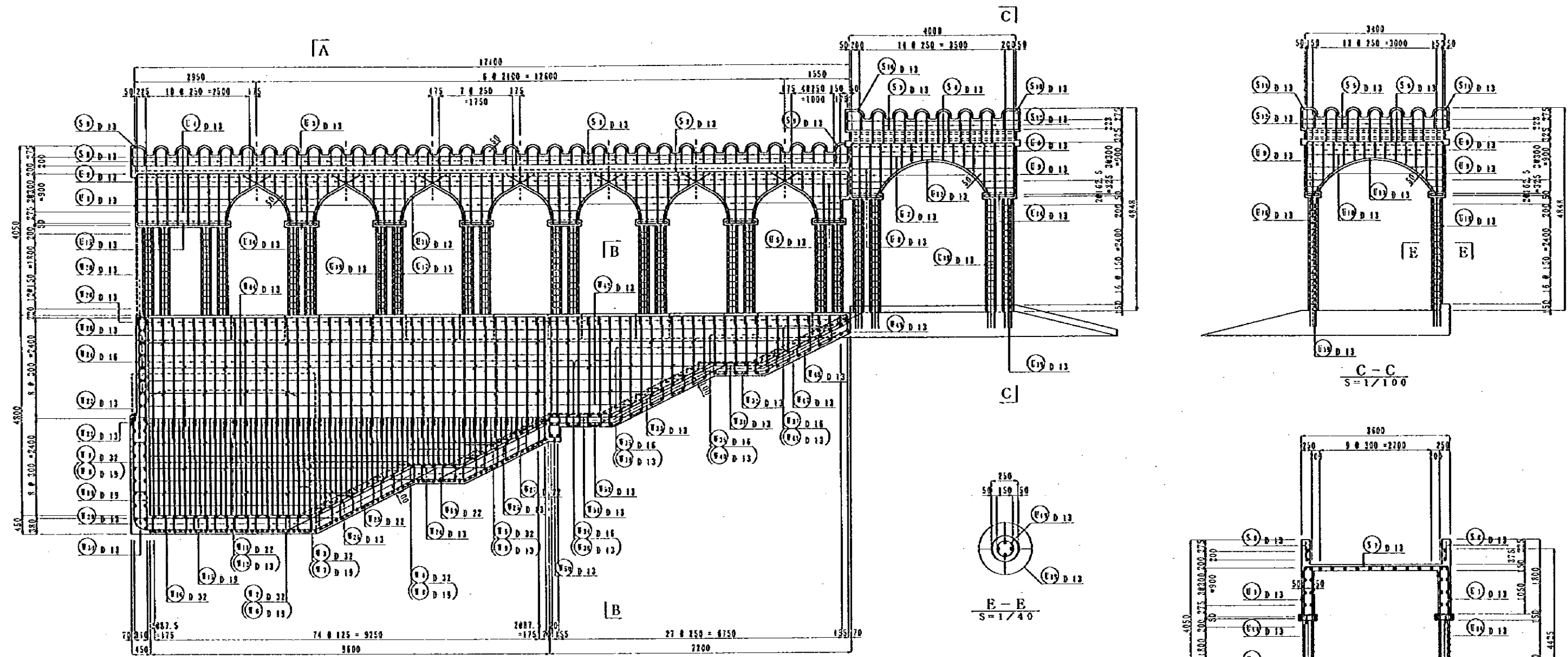
TITLE : P/U-10, KHOR A' SIYABI RE-BAR ARRANGEMENT (2)

DATE : \_\_\_\_\_ DWG NO. P-5



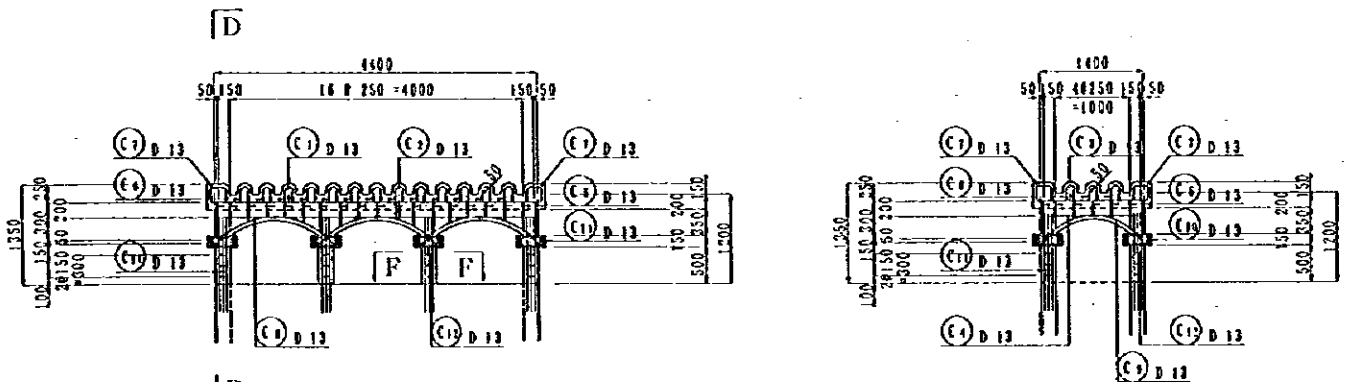
REIN. NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NLMB	U WEIGHT	WEIGHT	REMARKS
1	D 22	6 600	6.403	29	42.260	1225.5	┌
2	"	9 440	"	2	60.444	120.9	┌
3	"	8 110	"	22	51.528	1142.4	"
4	"	6 440	"	10	41.235	412.4	"
5	"	5 290	"	19	33.872	643.6	"
6	D 19	1 980	2.235	33	6.600	219.0	
7	"	2 340	"	22	5.230	115.1	"
8	"	1 430	"	10	3.643	36.4	"
9	"	990	"	19	2.213	42.0	"
10	"	3 700	"	41	8.270	339.1	—
11	D 22	11 070	3.042	3	33.675	101.0	"
12	D 13	10 800	0.994	3	10.795	32.2	"
13	D 22	9 610	3.042	10	10.981	109.6	"
14	D 13	3 610	0.994	11	3.588	39.5	"
15	"	4 840	"	15	4.811	72.2	"
16	D 22	7 410	6.403	30	47.446	1423.4	┌
17	D 13	3 460	0.994	16	3.439	55.0	—
18	D 19	2 980	2.235	13	6.600	86.6	
19	D 22	1 600	3.042	13	5.476	71.2	"
20	D 13	500	0.994	155	0.547	84.8	┌
21	D 16	2 880	1.552	166	4.470	742.0	
22	D 13	700	0.994	79	0.636	55.0	┌
23	D 22	3 700	3.042	13	11.255	146.3	—
24	D 13	1 800	0.994	15	1.789	26.8	—
25	"	2 500	"	13	2.485	32.3	—
26	"	3 700	"	15	3.678	55.2	"
27	D 22	3 200	3.042	15	9.734	146.0	"
28	D 13	420	0.994	91	0.417	37.9	"
29	"	1 160	"	117	1.153	134.9	┌
30	"	580	"	60	0.527	31.6	┌
31	"	1 500	"	15	1.491	22.4	—
32	"	1 500	"	13	1.491	19.4	"
33	"	3 560	"	7	3.539	24.8	"
34	D 16	8 280	1.552	7	13.006	91.0	┌
35	"	7 180	"	7	11.148	78.0	"
36	"	5 980	"	5	9.281	46.4	"
37	"	4 820	"	9	7.481	67.3	"
38	D 13	2 530	0.994	14	2.515	35.2	
39	"	1 930	"	18	1.918	34.5	"
40	"	1 930	"	10	1.322	13.2	"
41	"	750	"	18	0.746	13.4	"
42	"	4 500	"	32	4.473	143.1	—
43	"	3 460	"	30	3.439	103.2	"
44	"	10 750	"	30	10.686	320.6	"
45	"	3 560	"	7	3.539	24.8	"
46	D 16	1 960	1.552	32	3.042	97.3	
47	D 13	2 500	0.994	15	2.485	37.3	—
48	"	2 200	"	13	2.187	28.4	"
49	"	820	"	68	0.815	55.4	┌
50	"	1 330	"	15	1.322	19.8	┌
51	"	1 800	"	15	1.789	26.8	—
52	"	1 500	"	13	1.491	19.4	"
53	D 22	7 300	3.042	7	22.207	155.4	"
54	D 13	2 300	0.994	7	7.256	50.8	"
55	"	6 620	"	3	6.580	19.2	"
9325.0							

REIN. NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NLMB	U WEIGHT	WEIGHT	REMARKS
S 1	D 13	17 990	0.994	4	17.882	71.5	—
2	"	17 890	"	14	17.703	249.0	"
3	"	4 100	"	4	4.075	16.3	—
4	"	3 900	"	17	3.877	65.9	"
5	"	3 500	"	4	3.479	13.9	"
6	"	3 300	"	15	3.289	49.2	"
7	"	3 500	"	63	3.479	219.6	"
8	"	800	"	69	0.795	54.9	┌
9	"	1 080	"	6	1.074	4.3	┌
10	"	1 840	"	4	1.829	7.3	"
11	"	1 760	"	6	1.690	6.8	"
12	"	1 500	"	22	1.431	31.6	┌
13	"	1 160	"	2	1.093	2.2	┌
810.7							
U 1	D 13	1 230	0.994	136	1.223	166.9	
2	"	500	"	156	0.497	97.4	"
3	"	1 200	"	72	1.193	85.9	"
4	"	3 070	"	12	3.052	36.6	"
5	"	980	"	12	0.974	11.7	"
6	"	800	"	88	0.795	70.0	
7	"	3 900	"	4	3.877	15.5	—
8	"	600	"	48	0.536	25.6	"
9	"	1 280	"	20	1.272	25.4	
10	"	3 300	"	4	3.289	13.1	—
11	"	1 720	"	56	1.710	95.8	—
12	"	3 450	"	4	3.469	12.9	—
13	"	3 670	"	4	3.648	14.6	"
14	"	800	"	56	0.795	44.5	┌
15	"	2 900	"	3	2.883	23.1	"
16	"	400	"	56	0.398	22.3	"
17	"	3 010	"	160	2.992	476.7	
18	"	3 610	"	32	3.589	114.8	"
19	"	540	"	656	0.537	352.3	┌
20	"	3 400	"	4	3.380	13.6	┌
21	"	3 500	"	3	3.479	7.0	—
22	"	3 400	"	12	3.350	40.6	"
1721.6							
C 1	D 13	4 200	0.994	7	4.175	29.2	—
2	"	4 000	"	2	3.976	8.0	"
3	"	1 500	"	19	1.491	28.3	"
4	"	1 300	"	2	1.292	2.6	"
5	"	400	"	52	0.398	20.7	
6	"	460	"	32	0.457	14.6	"
7	"	580	"	8	0.577	4.6	┌
8	"	1 850	"	6	1.839	11.0	┌
9	"	1 610	"	2	1.600	3.2	"
10	"	400	"	64	0.398	25.5	┌
11	"	1 410	"	32	1.402	44.9	
12	"	700	"	24	0.636	16.7	┌
209.3							
D 22							498.2
D 22							729.7
D 19							833.0
D 16							1412.0
D 13							4457.7
TOTAL WEIGHT							13116.6



**A** SIDE VIEW  
S=1/100

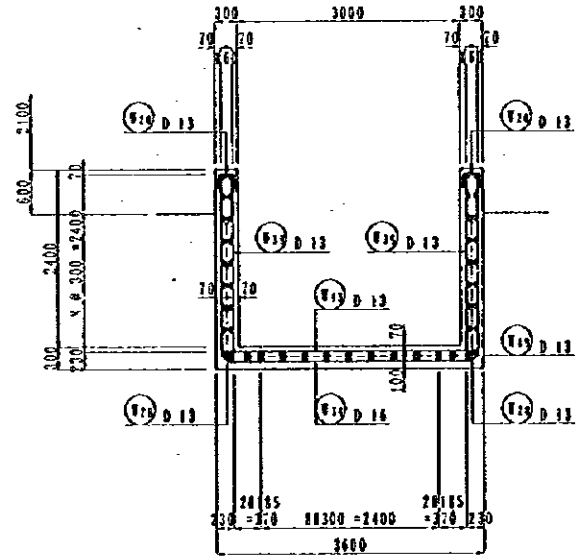
**E - E**  
S=1/40



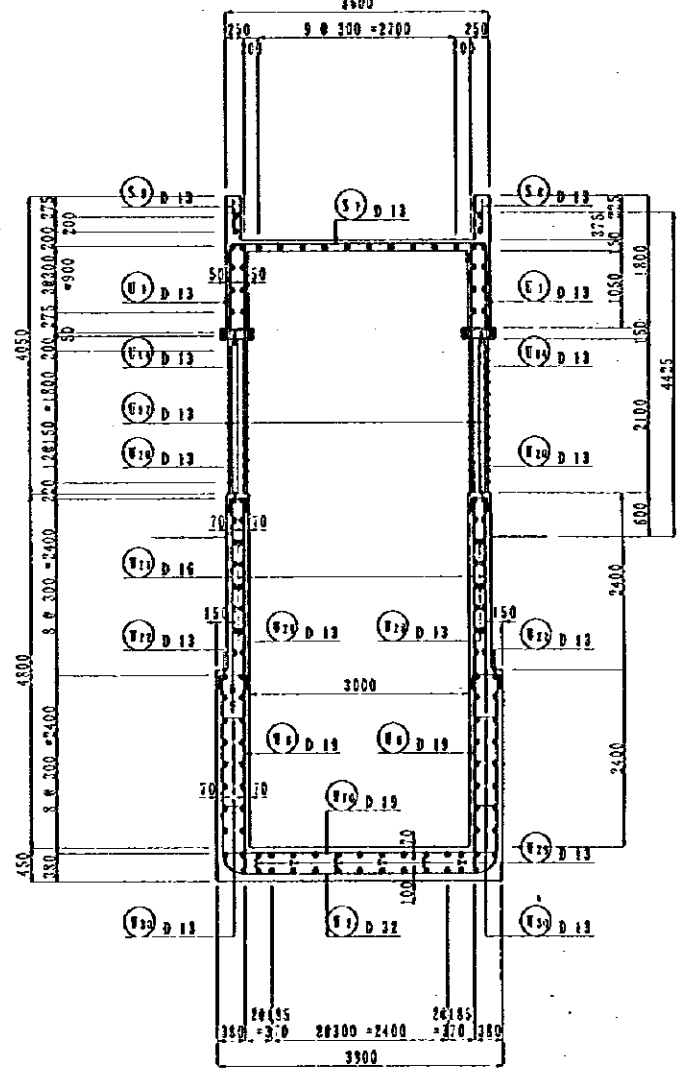
**D** CANOPY ON LIGHT  
S=1/100

**D - D**  
S=1/100

**F - F**  
S=1/40



**B - B**  
S=1/100

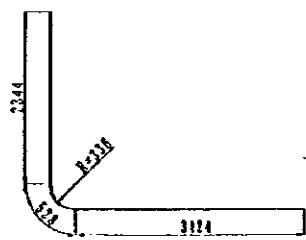


**A - A**  
S=1/100

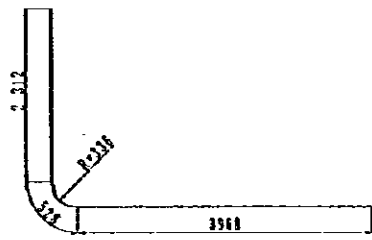
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

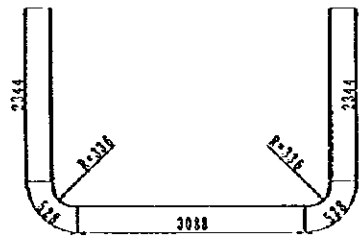
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-10, KHOR A' SIYABI RE-BAR ARRANGEMENT (4)  
DATE : DWG NO. P-7



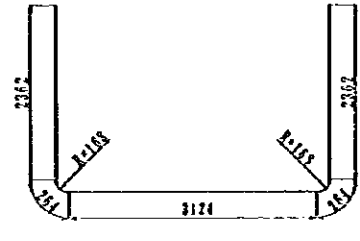
(1) 19-D32 x 6 300



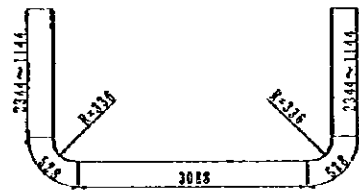
(2) 30-D32 x 6 310



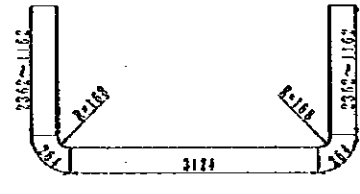
(3) 2-D32 x 8 840



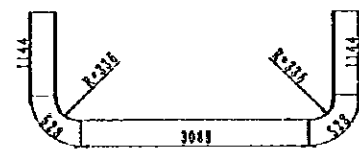
(4) 7-D16 x 8 350



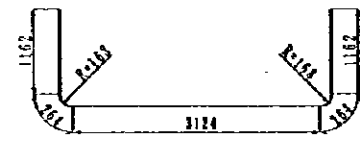
(5) 19-D32 x 7 640



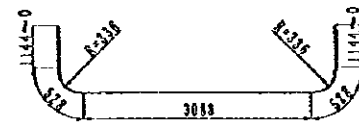
(6) 9-D16 x 7 830



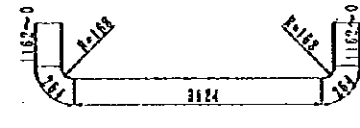
(7) 10-D32 x 6 440



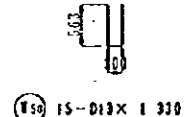
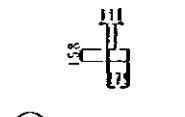
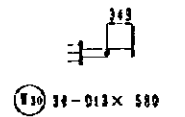
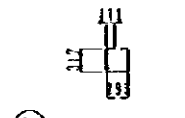
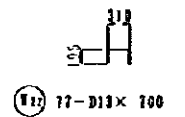
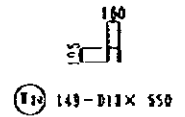
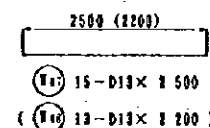
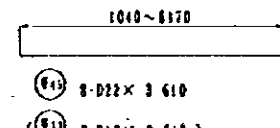
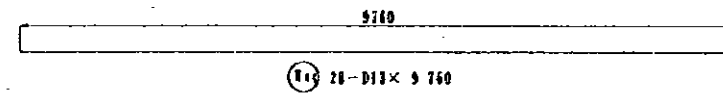
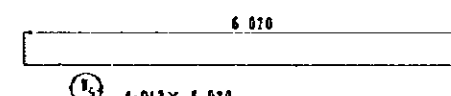
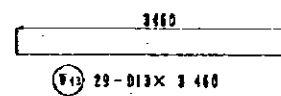
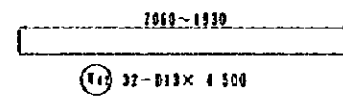
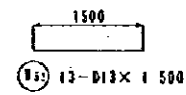
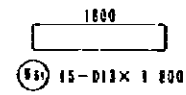
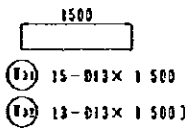
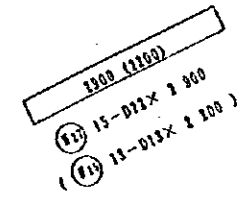
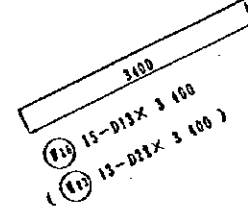
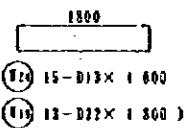
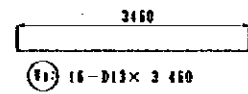
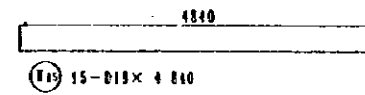
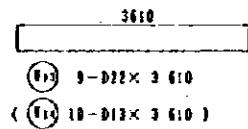
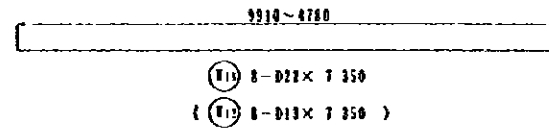
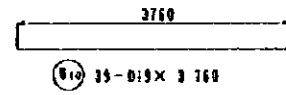
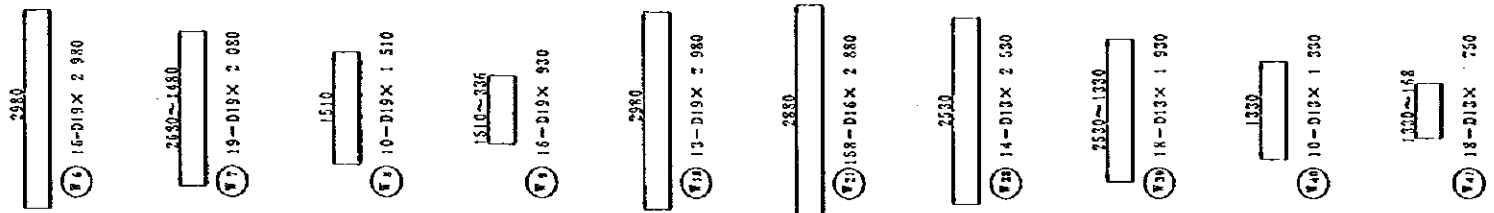
(8) 5-D16 x 5 930



(9) 18-D32 x 5 290



(10) 9-D16 x 4 820



NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

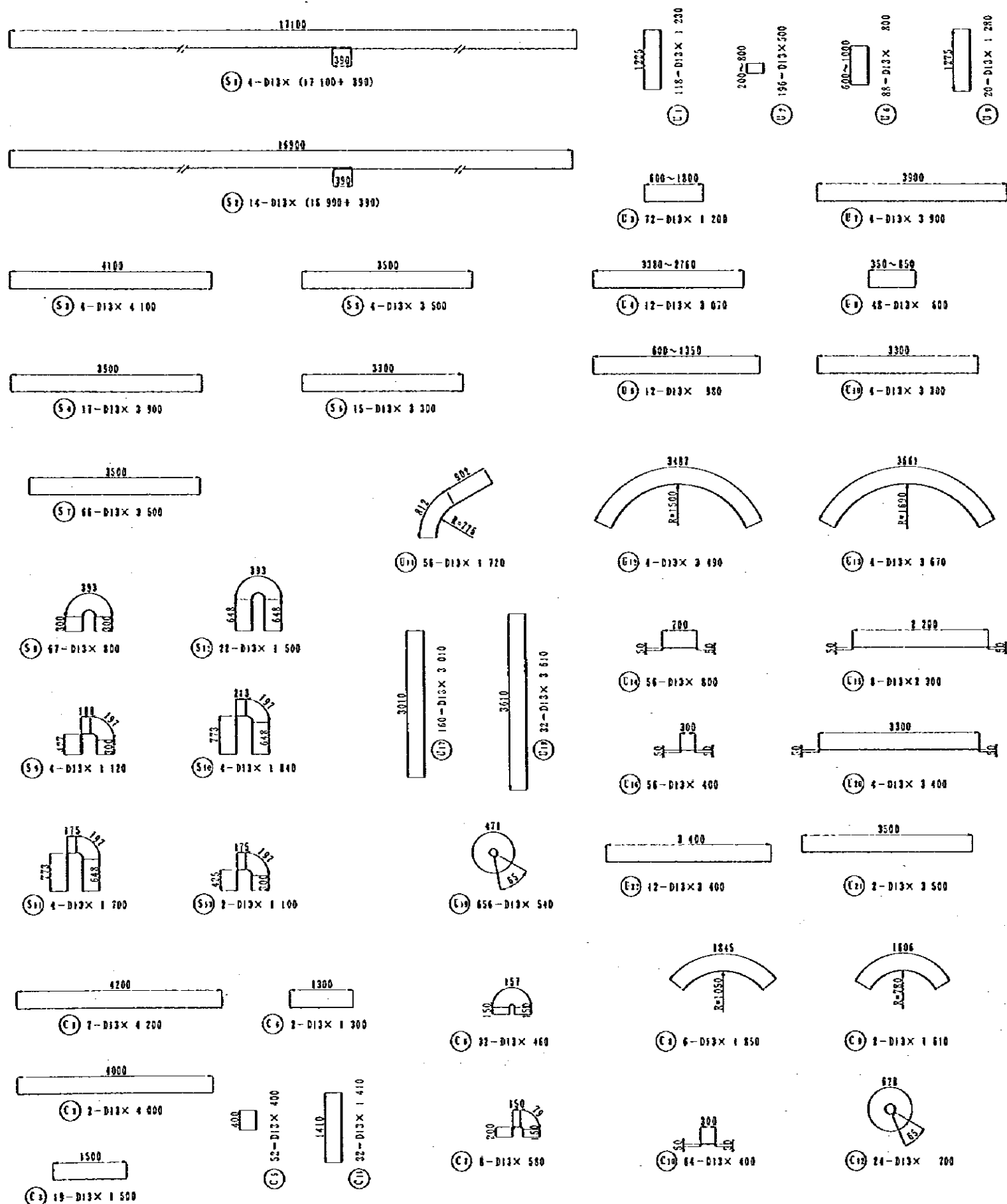
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : P/U-10, KHOR A' SIYABI RE-BAR ARRANGEMENT (S)

DATE : \_\_\_\_\_ DWG NO. P - 8



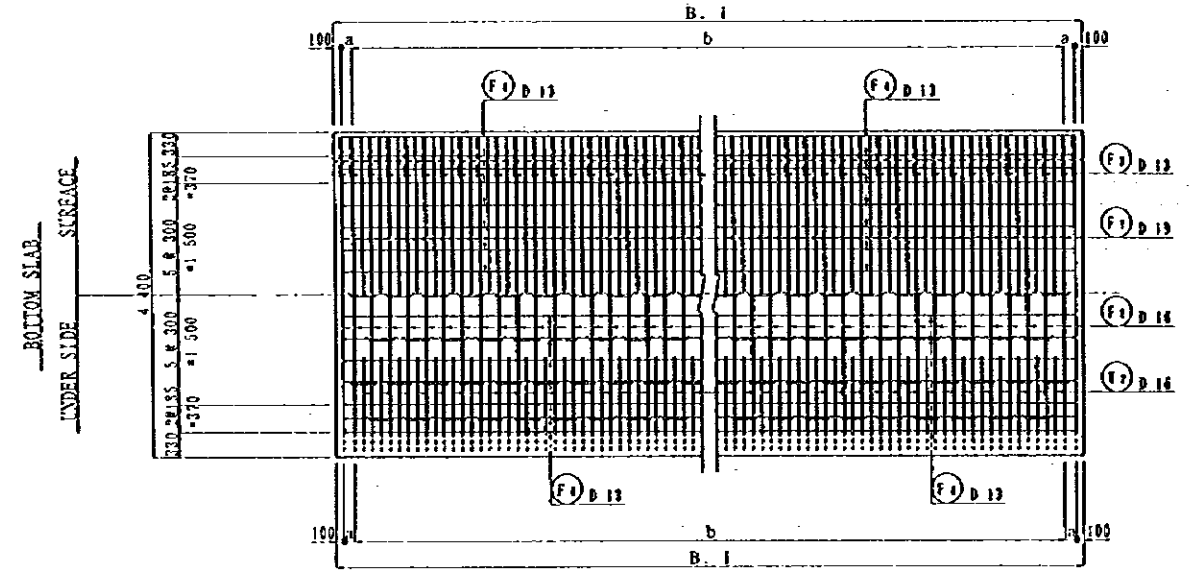
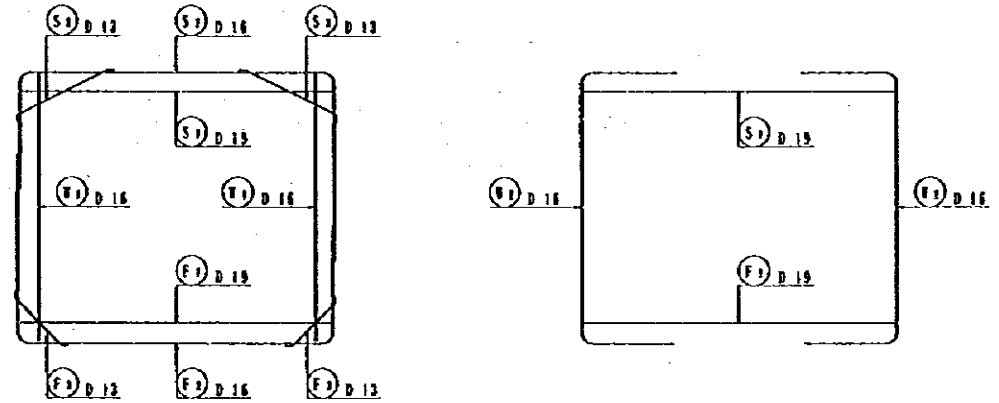
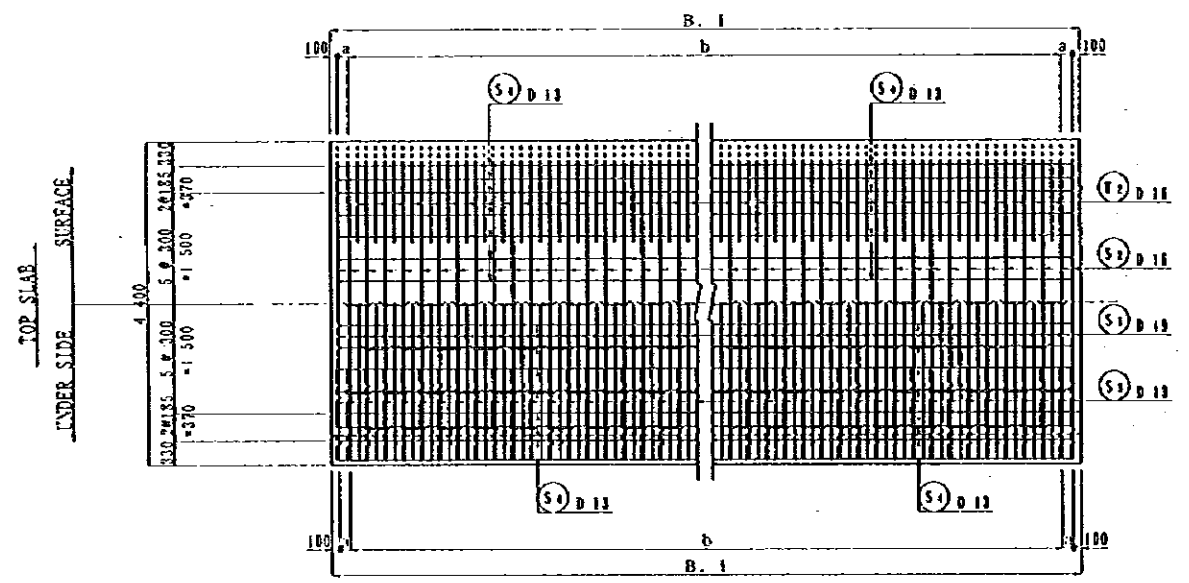
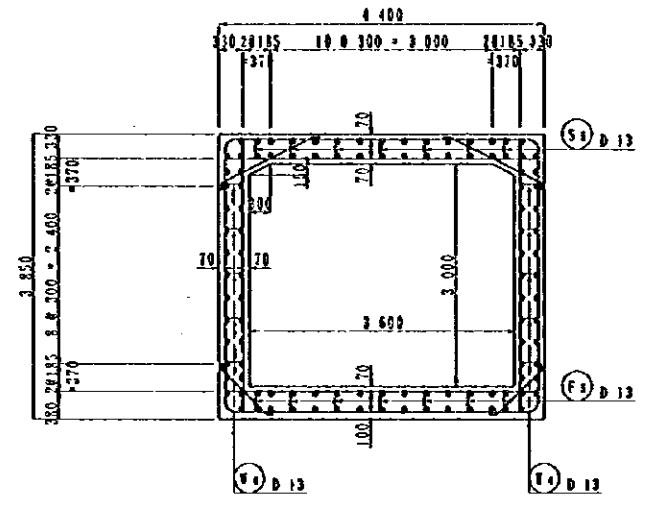
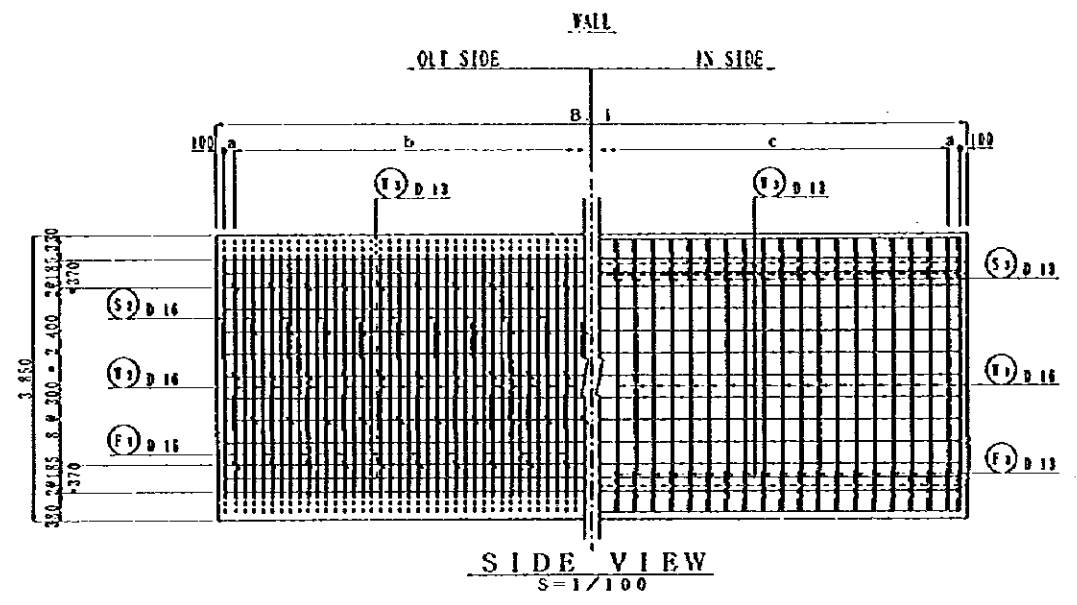
REIN. NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NMB	U WEIGHT	WEIGHT	REMARKS
1	D 32	8 300	6.483	29	49.339	1169.8	┌
2	"	8 840	"	2	56.603	113.2	└
3	"	7 610	"	13	48.727	925.8	//
4	"	6 440	"	10	41.235	412.4	//
5	"	5 290	"	16	32.872	542.0	//
6	D 19	2 980	2.235	18	6.660	106.6	
7	"	2 040	"	19	4.643	88.3	//
8	"	1 510	"	18	3.375	52.8	//
9	"	930	"	16	2.079	33.3	//
10	"	3 760	"	23	8.404	327.7	
11	D 22	7 350	3.042	8	12.355	178.5	//
12	D 19	7 350	0.994	8	7.350	58.8	//
13	D 22	3 610	3.042	9	10.382	98.8	//
14	D 19	3 610	0.994	10	3.592	35.9	//
15	D 19	4 840	2.235	15	10.817	162.3	//
16	D 22	6 810	6.403	20	43.604	1308.1	└
17	D 19	3 460	0.994	16	3.439	55.0	
18	D 19	2 980	2.235	13	6.660	86.6	
19	D 22	1 890	3.042	13	5.476	71.2	
20	D 19	550	0.994	149	0.547	81.5	└
21	D 16	2 880	1.552	158	4.470	706.2	
22	D 19	700	0.994	77	0.698	53.8	└
23	D 22	3 420	3.042	13	3.878	134.5	
24	D 19	1 890	0.994	15	4.023	60.3	
25	"	2 290	"	13	2.197	28.4	
26	"	3 400	"	15	3.383	50.7	
27	D 22	2 920	3.042	15	8.822	132.3	
28	D 19	420	0.994	69	0.418	37.2	
29	"	1 180	"	114	1.153	131.4	└
30	"	580	"	38	0.577	19.6	└
31	"	1 500	"	15	1.491	22.4	"
32	"	1 500	"	13	1.491	19.4	"
33	"	3 610	"	8	3.588	28.2	"
34	D 16	8 380	1.552	7	12.006	91.0	└
35	"	7 180	"	9	11.143	100.3	"
36	"	5 980	"	5	9.281	46.4	"
37	"	4 820	"	9	7.481	67.3	"
38	D 19	2 530	0.994	14	2.515	35.2	
39	"	1 930	"	18	1.918	34.5	"
40	"	1 330	"	10	1.322	19.2	"
41	"	750	"	18	0.746	13.4	"
42	"	4 520	"	22	4.473	149.1	
43	"	3 440	"	29	3.439	99.7	"
44	"	3 740	"	28	3.701	171.8	"
45	D 22	3 610	3.042	8	10.982	87.9	"
46	D 18	1 660	1.552	32	2.578	82.4	
47	D 19	2 500	0.994	15	2.485	37.3	
48	"	2 200	"	13	2.187	28.4	
49	"	820	"	28	0.815	69.6	└
50	"	1 330	"	15	1.322	19.8	└
51	"	1 800	"	15	1.789	26.8	
52	"	1 500	"	13	1.491	19.4	"
7 254.4							

REIN. NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NMB	U WEIGHT	WEIGHT	REMARKS
S 1	D 13	17 490	0.994	4	17.385	69.5	—
2	"	12 290	"	14	17.186	249.6	"
3	"	4 160	"	4	4.075	16.3	—
4	"	3 900	"	17	3.872	65.9	"
5	"	3 500	"	4	3.479	13.9	"
6	"	3 200	"	15	3.280	49.2	"
7	"	3 500	"	66	3.479	229.6	"
8	"	800	"	67	0.795	53.3	└
9	"	1 120	"	4	1.113	4.5	└
10	"	1 840	"	4	1.829	7.3	"
11	"	1 700	"	4	1.690	6.8	"
12	"	1 500	"	22	1.491	32.8	"
13	"	1 100	"	2	1.093	2.2	└
791.9							
U 1	D 13	1 230	0.994	118	1.223	144.3	
2	"	500	"	136	0.487	97.4	//
3	"	1 200	"	78	1.193	85.9	—
4	"	3 070	"	12	3.052	36.6	//
5	"	930	"	12	0.974	11.7	//
6	"	800	"	88	0.795	70.0	
7	"	3 900	"	4	3.872	15.5	—
8	"	600	"	34	0.596	20.3	//
9	"	1 280	"	20	1.272	25.4	//
10	"	3 200	"	4	3.280	13.1	//
11	"	1 720	"	56	1.710	95.7	
12	"	3 490	"	4	3.465	13.9	
13	"	3 670	"	4	3.648	14.6	//
14	"	800	"	56	0.795	44.5	—
15	"	1 200	"	8	2.288	18.3	—
16	"	400	"	56	0.398	22.3	"
17	"	3 010	"	160	2.997	478.7	
18	"	3 610	"	32	3.588	114.8	"
19	"	540	"	656	0.537	352.1	○
20	"	3 420	"	1	3.350	18.5	└
21	"	3 500	"	2	3.479	7.0	—
22	"	3 490	"	12	3.380	40.6	//
1 736.2							
C 1	D 13	4 200	0.994	7	4.175	29.2	—
2	"	4 000	"	2	3.976	8.0	//
3	"	1 500	"	19	1.491	28.3	//
4	"	1 300	"	2	1.292	2.6	//
5	"	400	"	52	0.398	20.7	
6	"	460	"	32	0.457	14.6	└
7	"	580	"	8	0.577	4.6	"
8	"	1 850	"	6	1.839	11.0	
9	"	1 610	"	2	1.600	3.8	//
10	"	400	"	64	0.398	25.4	
11	"	1 410	"	32	1.402	46.9	//
12	"	700	"	74	0.688	16.7	○
209.1							
D 32 4 471.3							
D 22 703.6							
D 19 838.6							
D 18 1 093.6							
D 13 1 192.6							
TOTAL WEIGHT 11 299.7							

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
 JICA STUDY TEAM  
 PACIFIC CONSULTANTS INTERNATIONAL  
 FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
 PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
 TITLE : P/U-10, KHOR A' SIYABI RE-BAR ARRANGEMENT (6)  
 DATE : \_\_\_\_\_ DWG NO. P- 9

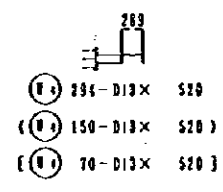
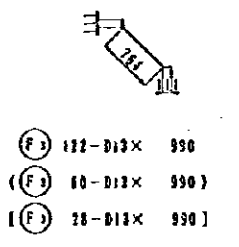
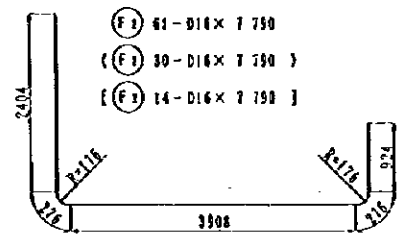
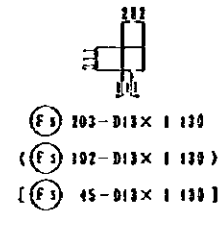
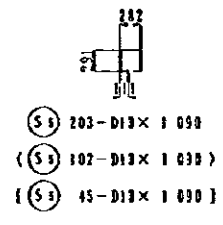
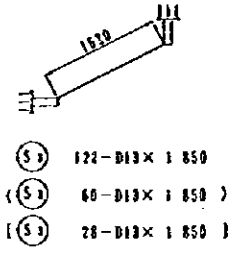
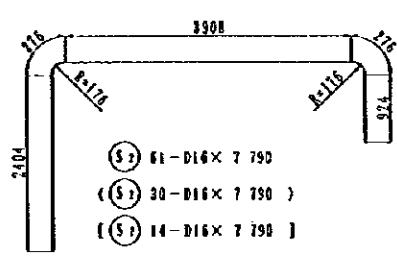
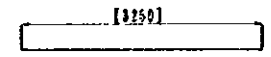
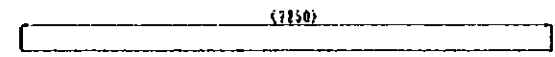
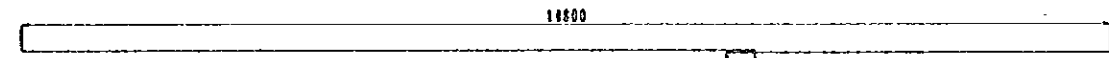
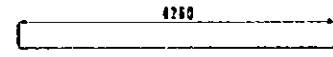
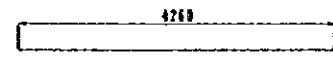
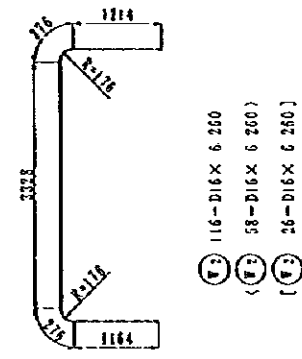
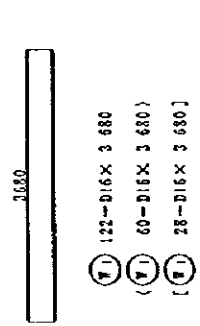


	B. I	a	b	c
TYPE A	15 000	150	116 @ 125	58 @ 250
TYPE C	3 450	—	26 @ 125	13 @ 250
TYPE D	7 450	—	58 @ 125	29 @ 250

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-10, KHOR A' SIYABI RE-BAR ARRANGEMENT (7)  
DATE : \_\_\_\_\_  
DWG NO. P - 10

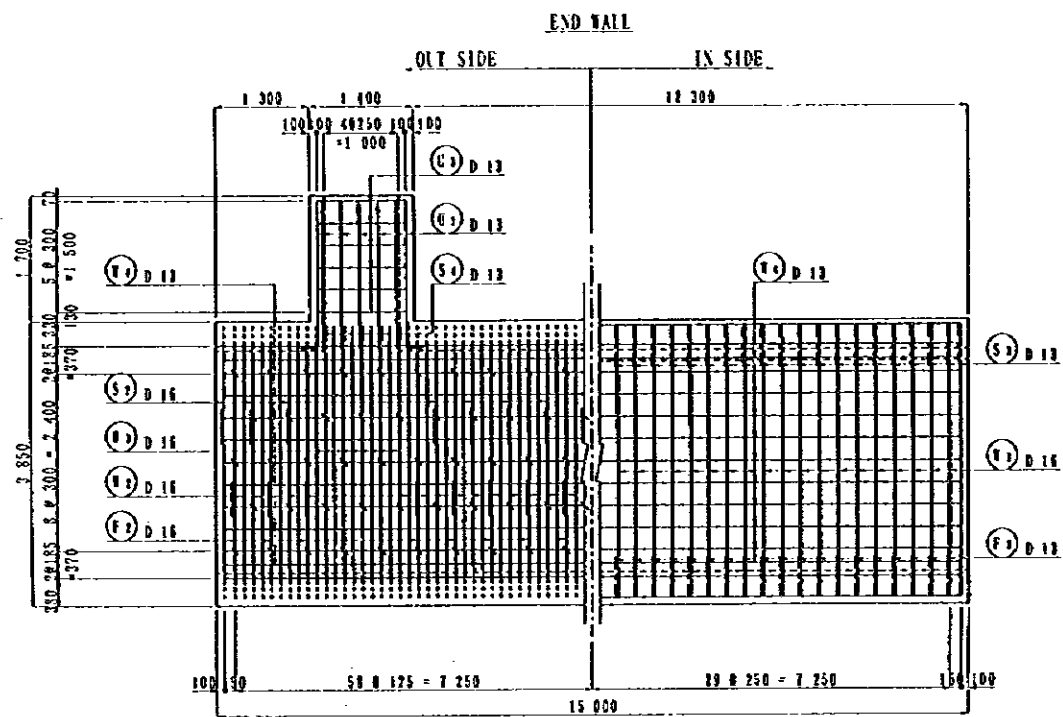


REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NLWD	U WEIGHT	WEIGHT	REMARKS
<b>TYPE-A</b>							
S 1	D 19	4 260	2.235	119	9.521	1133.0	
2	D 16	7 790	1.552	61	12.050	737.5	
3	D 13	1 850	0.994	122	1.839	224.4	
4	"	15 190	"	32	15.059	483.2	
5	"	1 090	"	203	1.083	219.9	
V 1	D 16	3 680	1.552	122	5.711	696.7	
2	"	6 260	"	118	9.716	1127.1	
3	D 13	15 190	0.994	44	15.099	664.4	
4	"	520	"	294	0.517	152.0	
F 1	D 19	4 260	2.235	119	9.521	1133.0	
2	D 16	7 790	1.552	61	12.050	737.5	
3	D 13	990	0.994	122	0.984	120.0	
4	"	15 190	"	32	15.059	483.2	
5	"	1 130	"	203	1.123	228.0	
							1135.9
<b>TYPE-C</b>							
S 1	D 19	4 260	2.235	59	9.521	561.7	
2	D 16	7 790	1.552	30	12.050	362.7	
3	D 13	1 850	0.994	60	1.839	110.3	
4	"	7 250	"	32	7.207	230.6	
5	"	1 050	"	102	1.083	110.5	
V 1	D 16	3 680	1.552	60	5.711	342.7	
2	"	6 260	"	58	9.716	563.5	
3	D 13	7250	0.994	44	7.107	317.1	
4	"	520	"	150	0.517	77.6	
F 1	D 19	4 260	2.235	59	9.521	561.7	
2	D 16	7 790	1.552	30	12.050	362.7	
3	D 13	990	0.994	60	0.984	90.4	
4	"	7 250	"	32	7.207	230.6	
5	"	1 130	"	102	1.123	114.5	
							4538.6
<b>TYPE-D</b>							
S 1	D 19	4 260	2.235	27	9.521	257.1	
2	D 16	7 790	1.552	14	12.050	169.3	
3	D 13	1 850	0.994	28	1.839	51.5	
4	"	3 250	"	32	3.231	103.4	
5	"	1 090	"	45	1.093	48.2	
V 1	D 16	3 680	1.552	78	5.711	159.9	
2	"	6 260	"	76	9.716	251.6	
3	D 13	3 250	0.994	44	3.231	142.2	
4	"	520	"	70	0.517	36.2	
F 1	D 19	4 260	2.235	27	9.521	257.1	
2	D 16	7 790	1.552	14	12.050	169.3	
3	D 13	990	0.994	28	0.984	27.6	
4	"	3 250	"	32	3.231	103.4	
5	"	1 130	"	45	1.123	50.5	
							1628.8
							D 19 3903.6
							D 16 5681.5
							D 13 4920.2
							TOTAL WEIGHT 14565.3

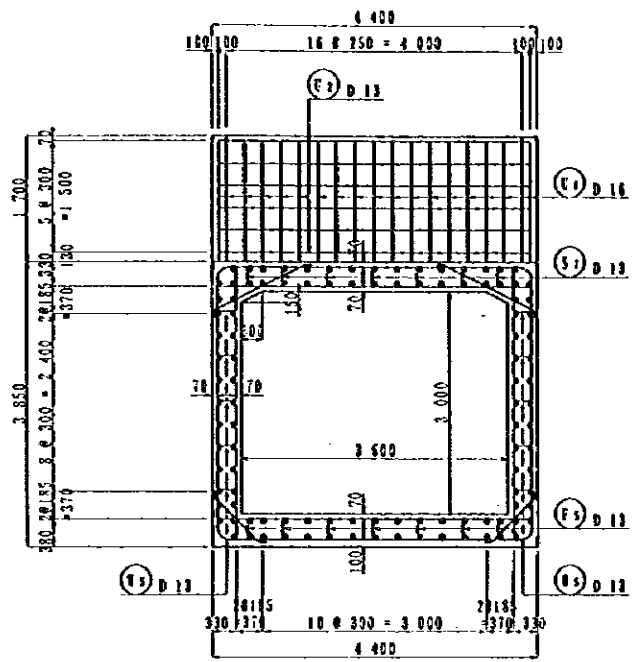
NOTES: ( ) TYPE-C  
[ ] TYPE-D

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

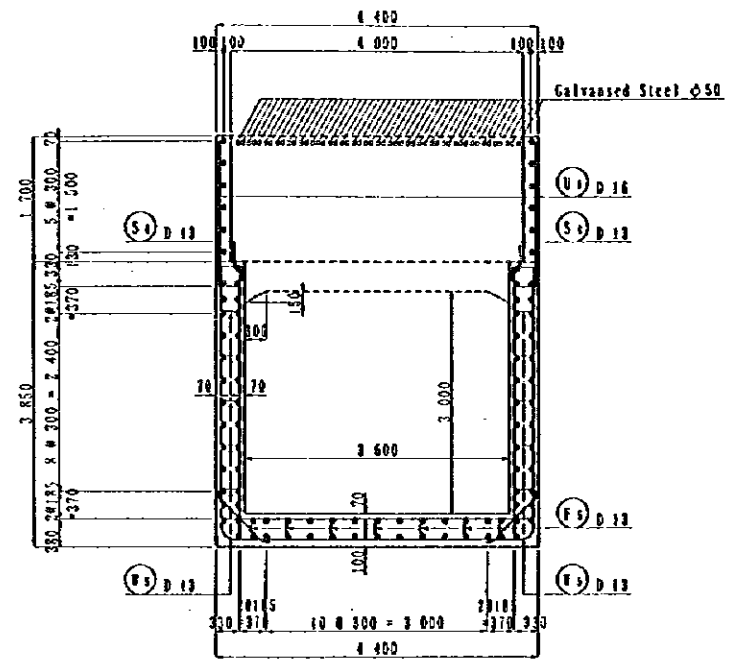
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-10, KHOR A' SIYABI RE-BAR ARRANGEMENT (8)  
DATE : \_\_\_\_\_  
DWG NO. P-11



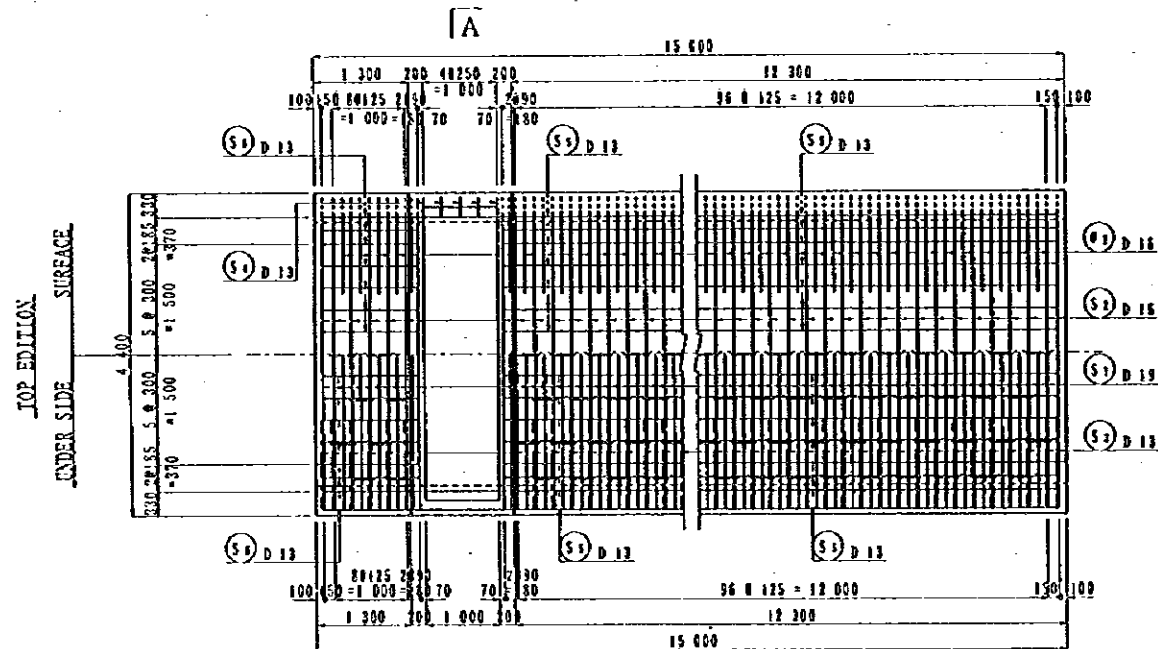
SIDE VIEW  
S=1/100



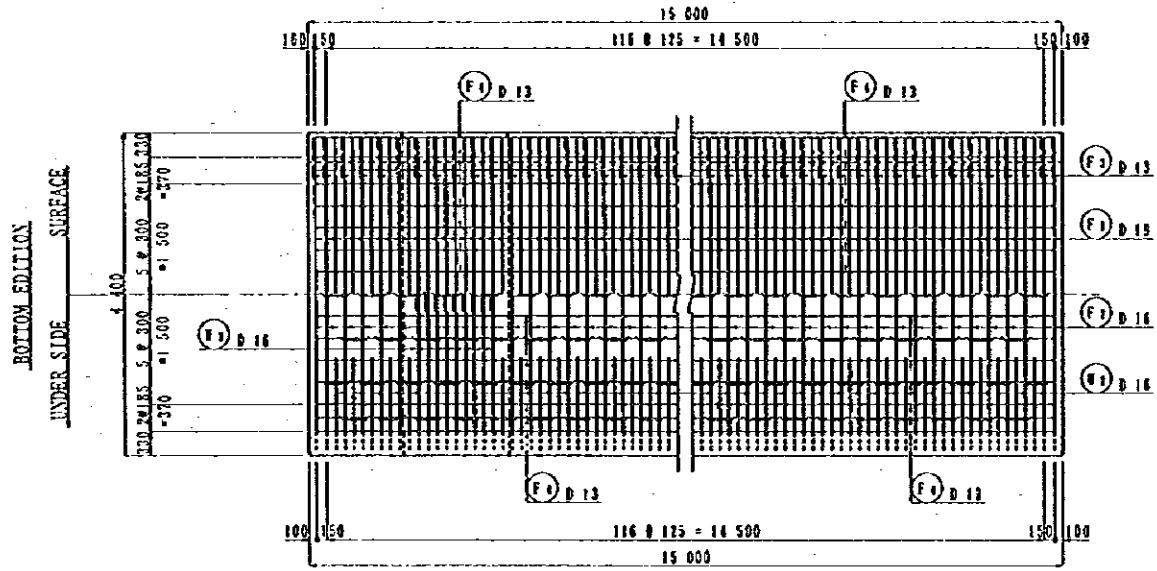
SECTION  
S=1/100



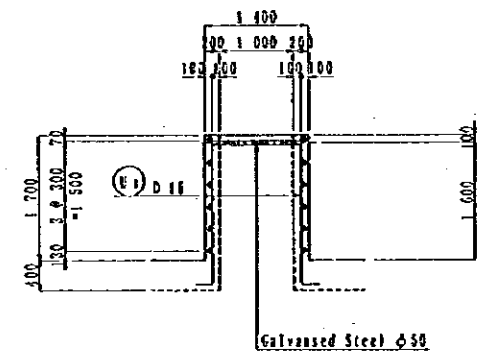
A-A  
S=1/100



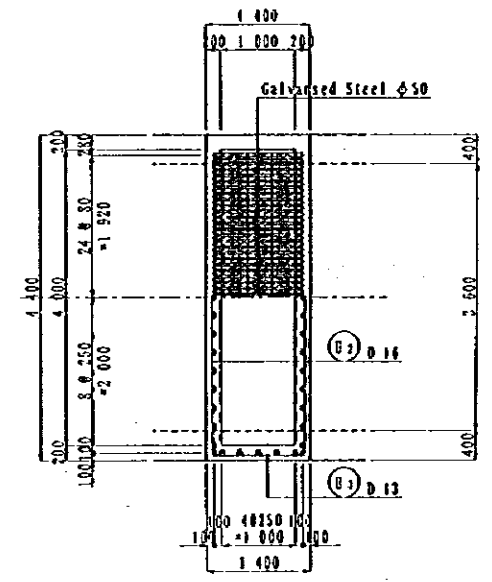
PLAN  
S=1/100



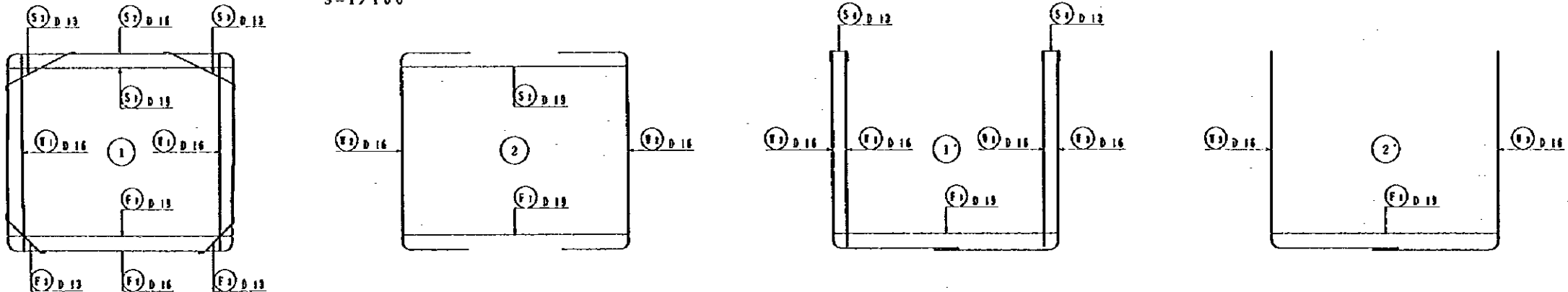
PLAN  
S=1/100



Galvanized Steel Ø50



Galvanized Steel Ø50

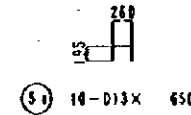
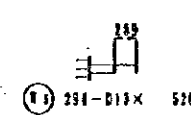
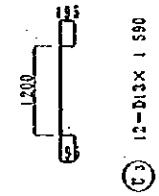
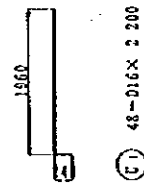
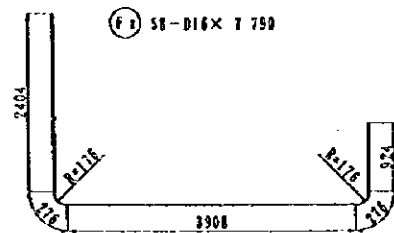
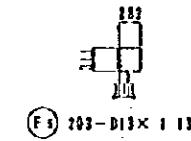
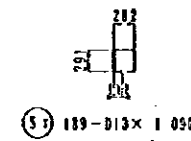
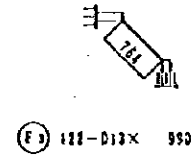
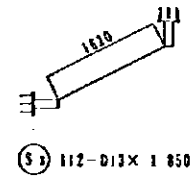
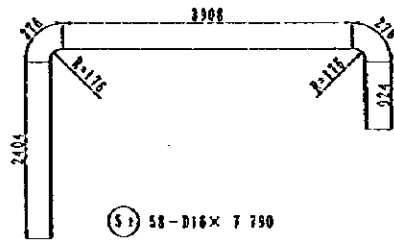
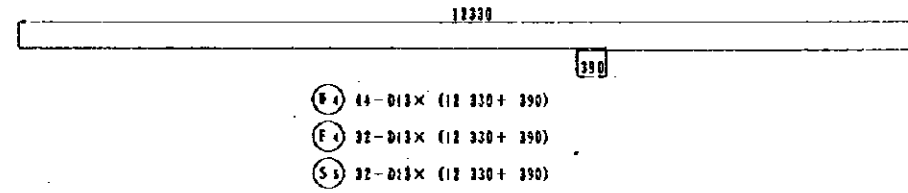
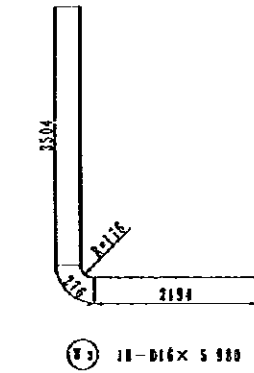
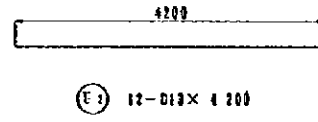
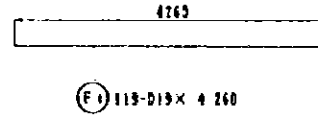
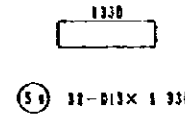
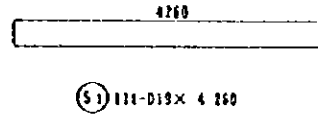
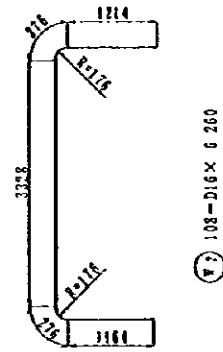
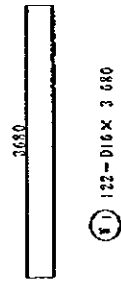


NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
PEKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-10, KHOR A' SIYABI RE-BAR ARRANGEMENT (9)  
DATE :  
DWG NO. P - 12





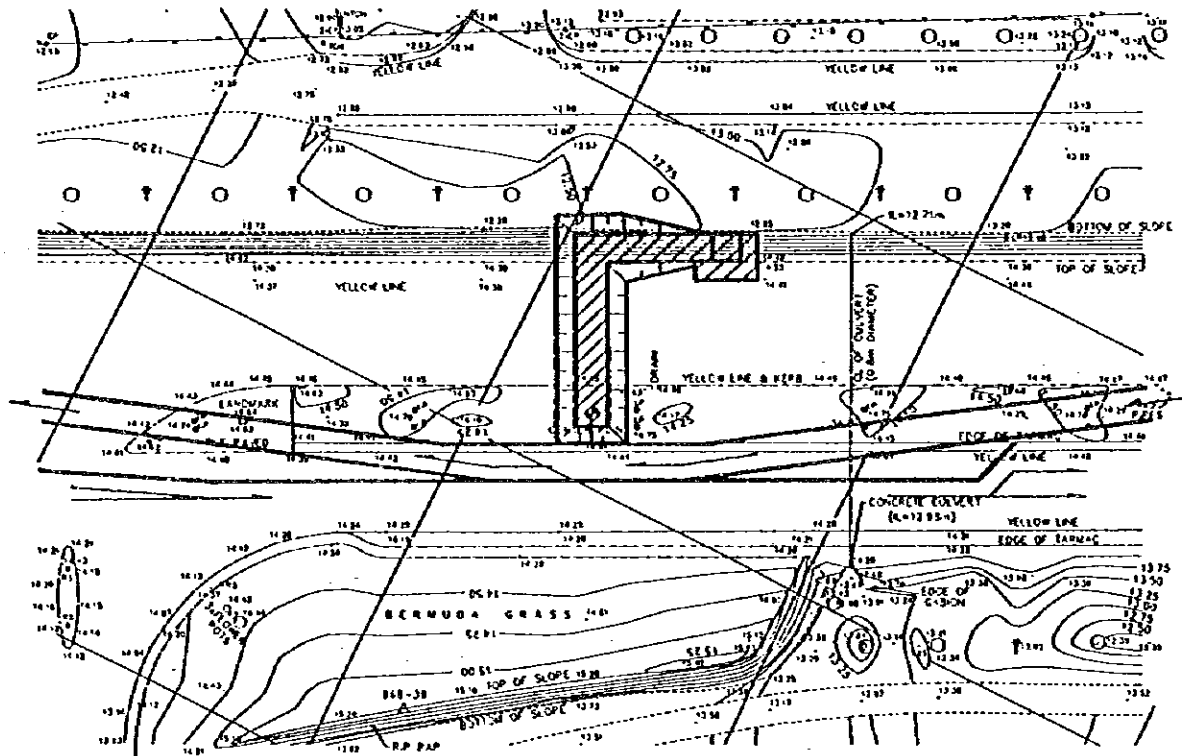
REIN. NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NLWS	U WEIGHT	WEIGHT	REMARKS
<b>TYPE - B</b>							
S 1	D 19	4 260	2.235	111	9.585	1056.0	—
2	D 16	7 750	1.552	58	12.090	701.2	—
3	D 13	1 850	0.934	112	1.041	206.7	—
4	"	650	"	10	0.616	6.5	—
5	"	12 720	"	32	12.644	484.6	—
6	"	1 330	"	32	1.322	42.3	—
7	"	1 090	"	189	1.053	204.7	—
V 1	D 16	3 680	1.552	122	5.711	196.7	—
2	"	6 260	"	108	5.716	189.3	—
3	"	5 980	"	18	9.281	167.1	—
4	D 13	12 720	0.934	44	12.644	558.3	—
5	"	520	"	294	0.517	152.0	—
F 1	D 19	4 260	2.235	119	9.521	1133.0	—
2	D 16	7 750	1.552	58	12.090	701.2	—
3	D 13	950	0.934	122	0.981	120.0	—
4	"	12 720	"	32	12.644	484.6	—
5	"	1 130	"	203	1.123	228.9	—
U 1	D 16	2 200	1.552	48	3.414	163.9	—
2	D 13	4 200	0.934	12	4.125	50.1	—
3	"	1 590	"	12	1.580	19.0	—
						D 19	2189.8
						D 16	2179.4
						D 13	2394.1
						<b>TOTAL WEIGHT</b>	<b>8043.3</b>

NOTES:

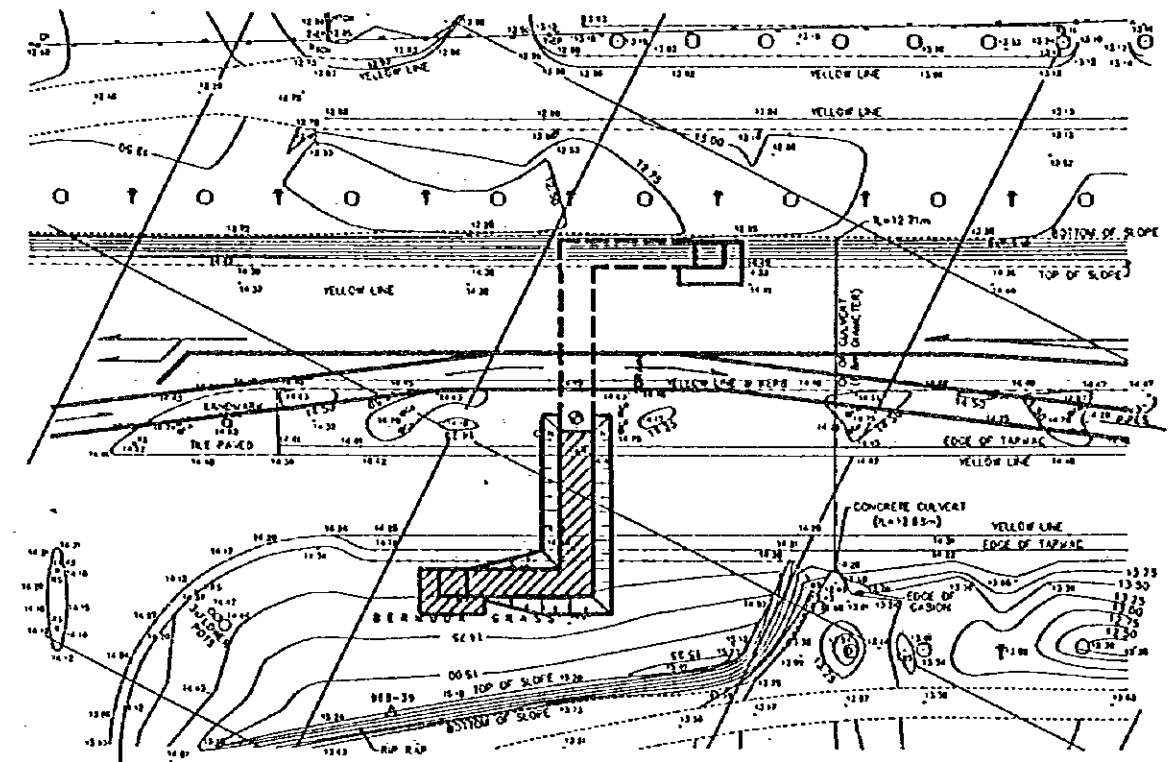
JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-10, KHOR A' SIYABI RE-BAR ARRANGEMENT (10)  
DATE : \_\_\_\_\_ DWG NO. P-13

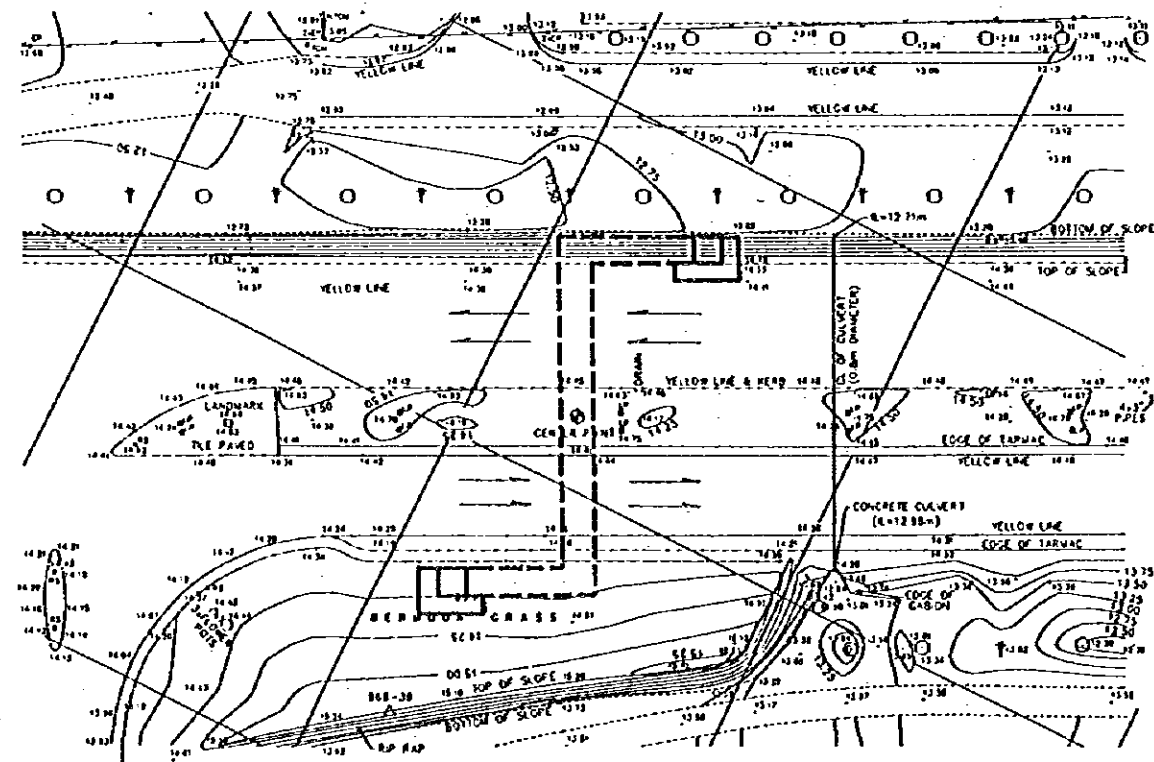
FIRST CONSTRUCTION STAGE



SECOND CONSTRUCTION STAGE



THIRD CONSTRUCTION STAGE



FIRST CONSTRUCTION STAGE

1. Divert traffic from the existing carriageway and demarcate the yard for the first stage of construction.
2. Carry out the first stage of construction for the underpass.
3. After completion of first stage of construction, restore the existing carriageway to allow traffic flow.

SECOND CONSTRUCTION STAGE

1. Divert traffic from the other carriageway and demarcate the yard for the second stage of construction.
2. Carry out the second stage of construction for the underpass.
3. After completion of second stage of construction, restore the existing carriageway to allow traffic flow.

THIRD CONSTRUCTION STAGE

1. Carry out accessory installation work for pedestrian underpass and open it to use.
2. Construction completed.

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)

JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

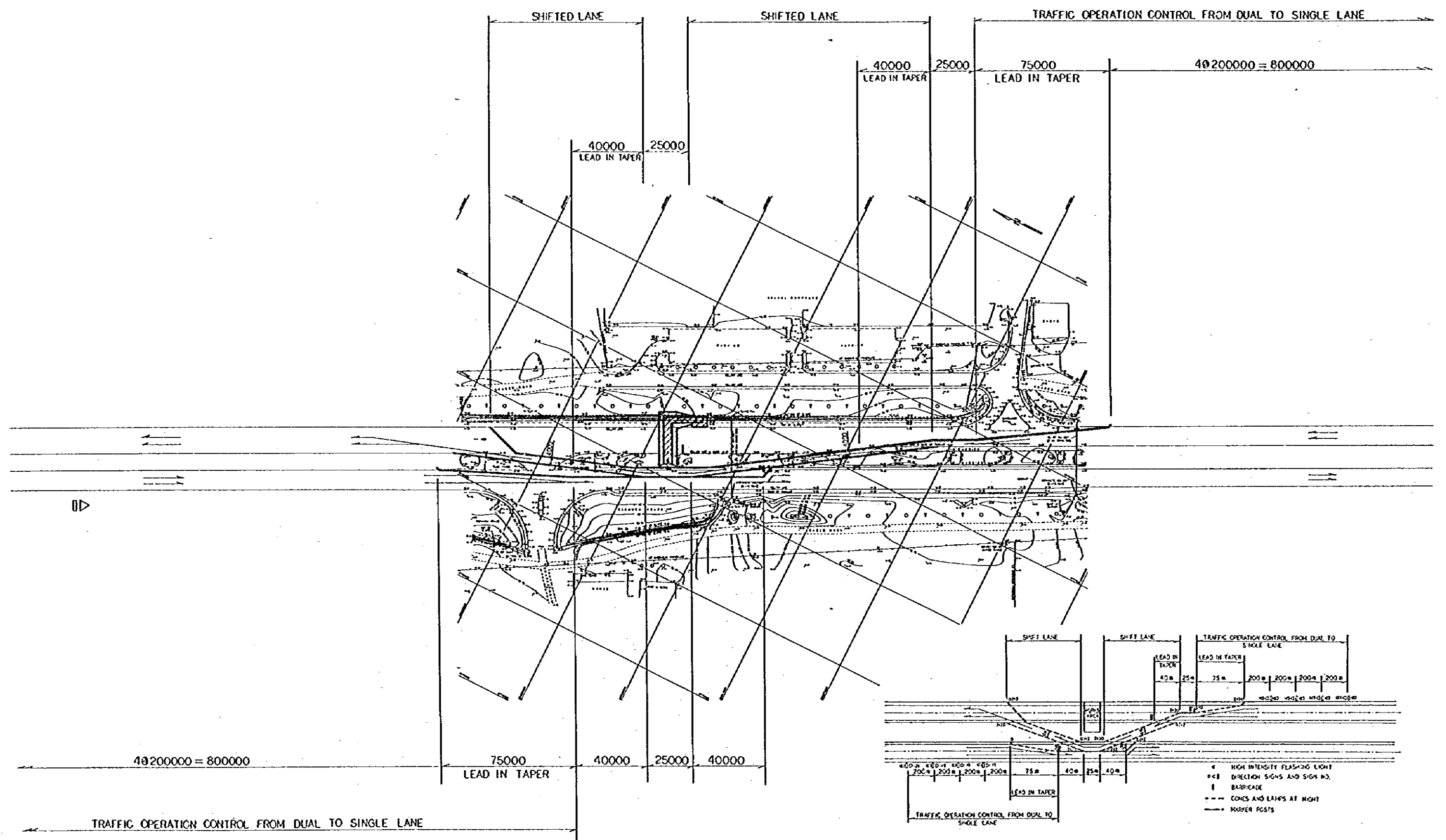
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE SEQUENCE OF KHOR A'SIYABI PU CONSTRUCTION

DATE

DWGNO.

T-1



SCALE 1/2000

GENERAL LAYOUT PLAN OF P/U WORKS

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUKUYAMA CONSULTANTS INTERNATIONAL	CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
	PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE: DETOUR LAYOUT OF KIHOR A'SIYABI P/U WORKS	DATE:
DWGNO.	T-2

1  
1  
1  
1  
1  
1

