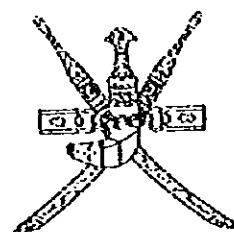


**SULTANATE OF OMAN**  
**MINISTRY OF COMMUNICATIONS**  
**DIRECTORATE GENERAL OF ROADS**

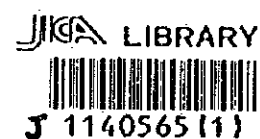


**CONSTRUCTION OF PEDESTRIAN UNDERPASS**  
**AT**  
**A'THARMAD**  
**BATINAH HIGHWAY**

**TENDER DOCUMENT**

**DRAWINGS**

PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL



March, 1997

SSF
CR(5)
97-015

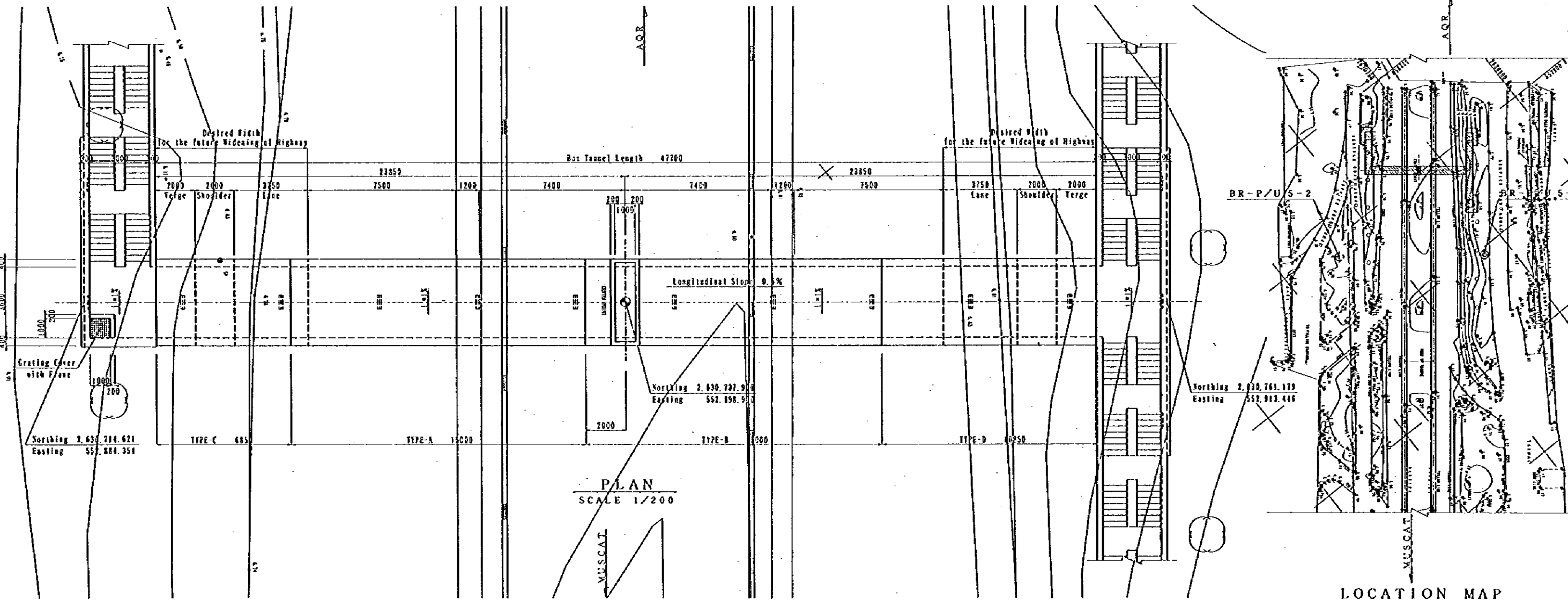
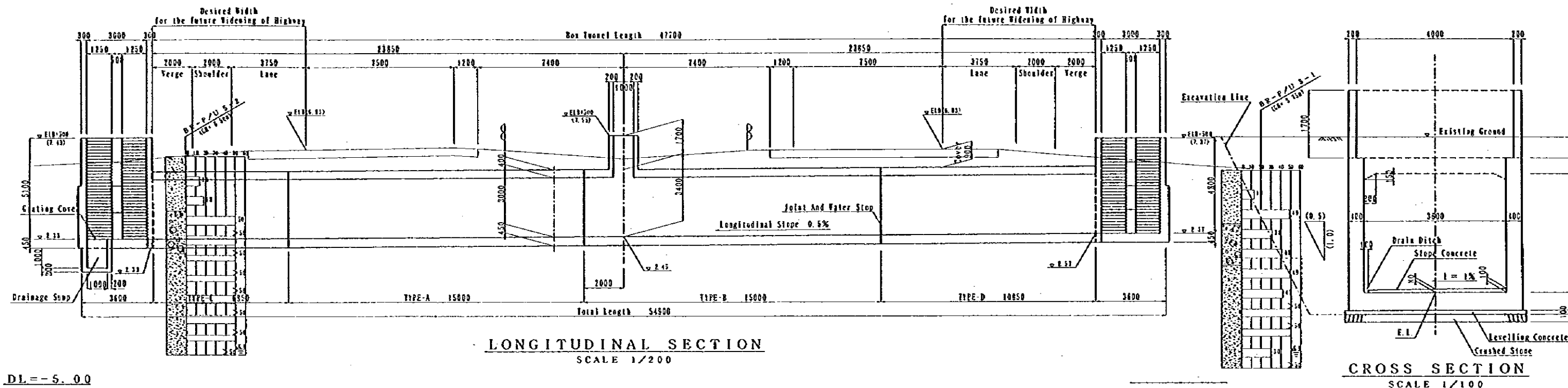
**DRAWING SCHEDULE**  
**(PU5-A'THARMAD PEDESTRIAN UNDERPASS)**

SHEET NO.	DRAWING TITLE
<b>G</b>	<b>GENERAL</b>
G - 1	Drawing Schedule
<b>P</b>	<b>PEDESTRIAN UNDERPASS</b>
P - 1	General View (1)
P - 2	General View (2)
P - 3	General View (3)
P - 4	General View (4)
P - 5	General View (5)
P - 6	Re-bar Arrangement (1)
P - 7	Re-bar Arrangement (2)
P - 8	Re-bar Arrangement (3)
P - 9	Re-bar Arrangement (4)
P - 10	Re-bar Arrangement (5)
P - 11	Re-bar Arrangement (6)
P - 12	Re-bar Arrangement (7)
P - 13	Re-bar Arrangement (8)
P - 14	Re-bar Arrangement (9)
P - 15	Re-bar Arrangement (10)
<b>T</b>	<b>TEMPORARY WORKS</b>
T - 1	Construction Sequence
T - 2	Detour Layout

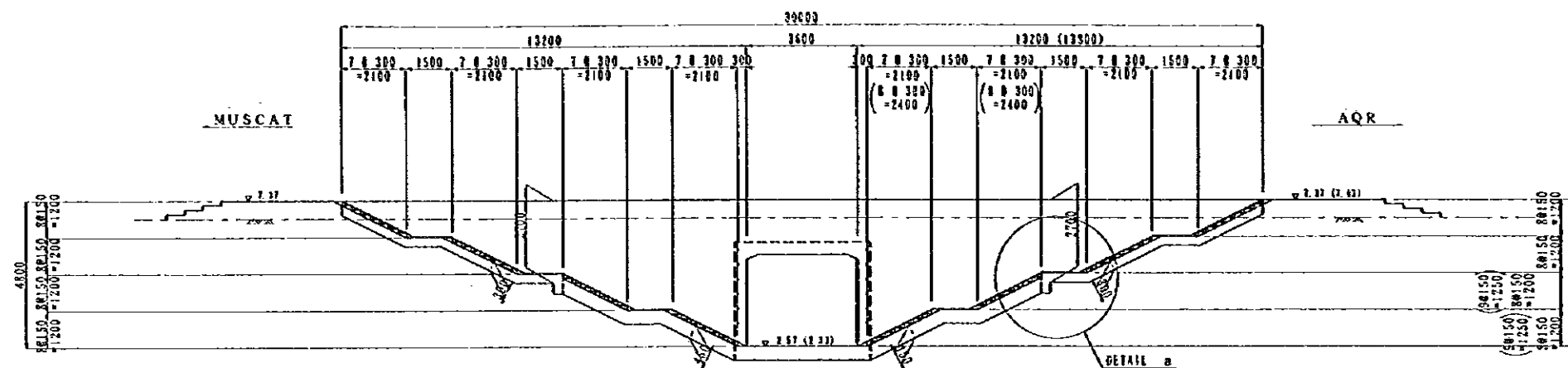
NOTES:		JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
		JICA STUDY TEAM	PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
		PACIFIC CONSULTANTS INTERNATIONAL	TITLE : PU-5, A' THARMAD DRAWING SCHEDULE
		FUKUYAMA CONSULTANTS INTERNATIONAL	DATE : DWG NO. G-1



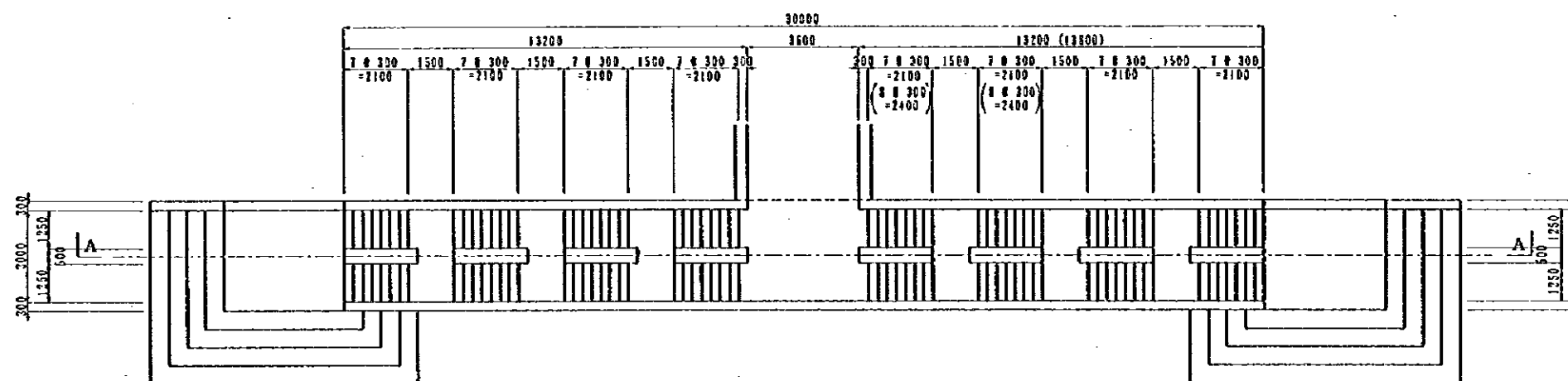
1140565 (1)



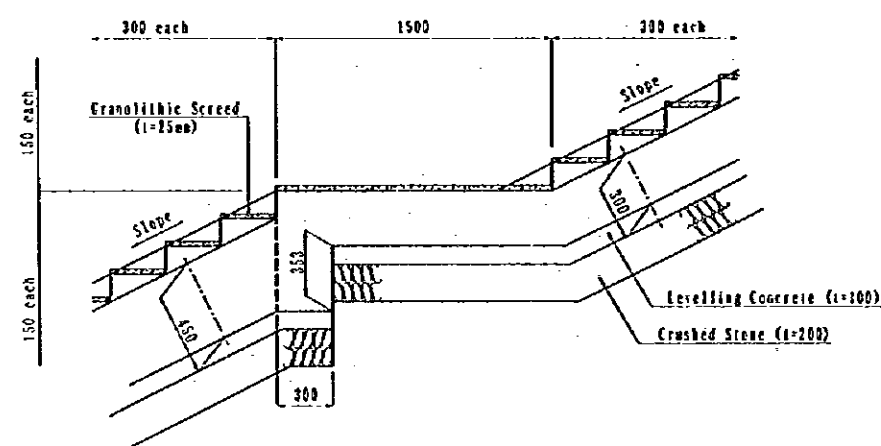
NOTES:		JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) JICA STUDY TEAM PACIFIC CONSULTANTS INTERNATIONAL FUKUYAMA CONSULTANTS INTERNATIONAL	CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY TITLE : P/U-S, A' THIRMAH GENERAL VIEW (1) DATE : DWG NO. P-1
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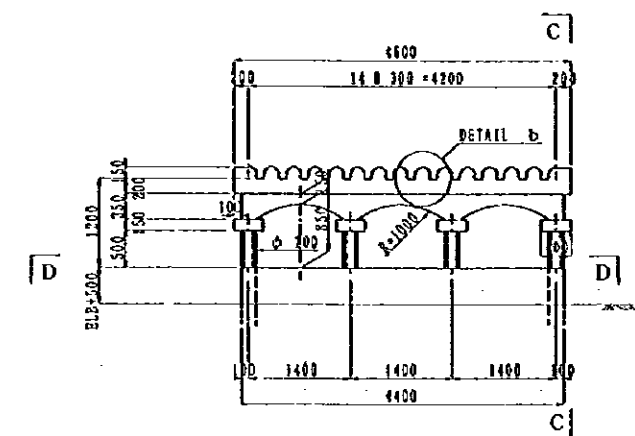
STAIR (SECTION A-A)  
SCALE 1/200



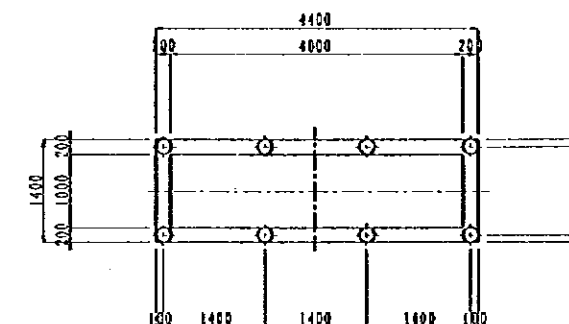
PLAN OF STAIR  
SCALE 1/200



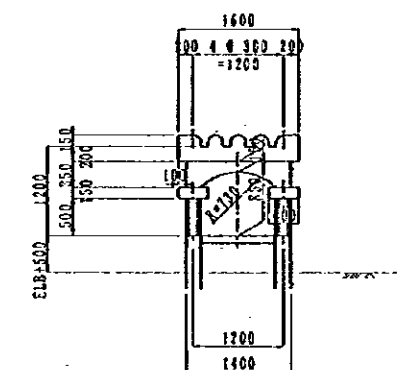
DETAIL a  
SCALE 1/40



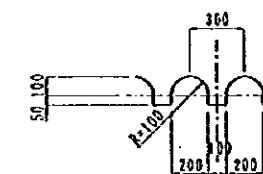
SIDE ELEVATION  
SCALE 1/100



SECTION D-D  
SCALE 1/100



SECTION B-B  
SCALE 1/100



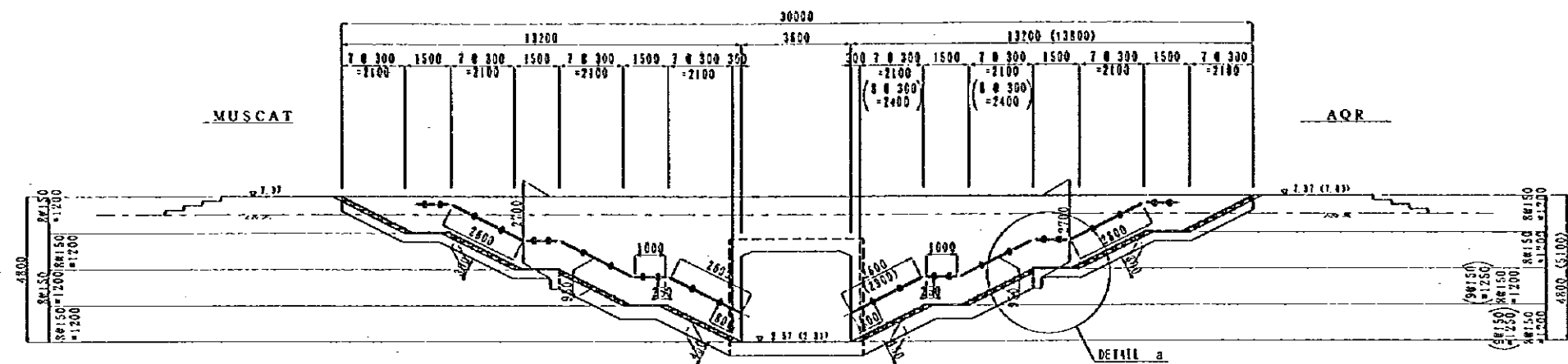
DETAIL b  
SCALE 1/40

CANOPY ON LIGHT WELL

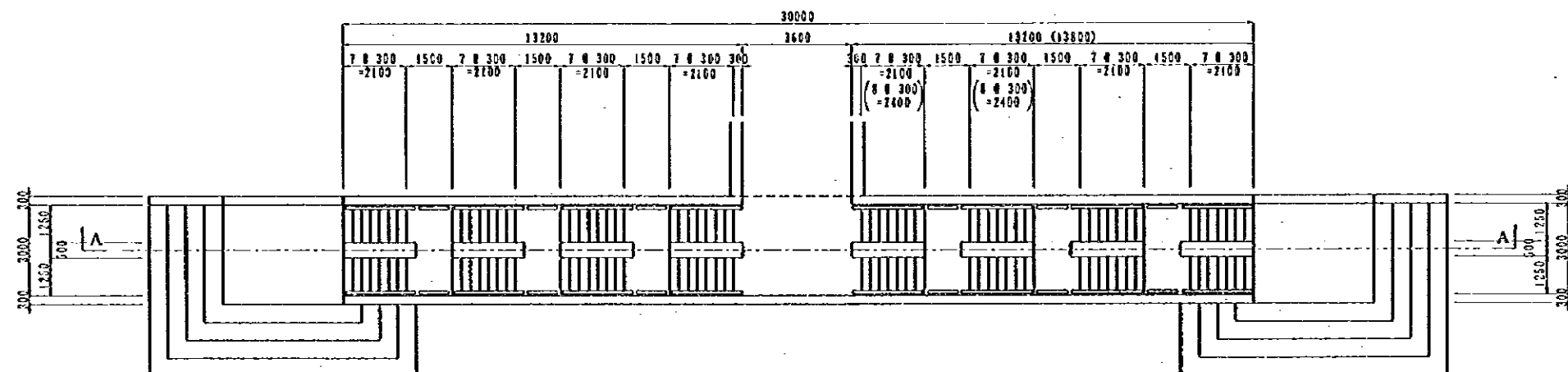
NOTES: Dimensions of ( ) value are for inland stair.

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

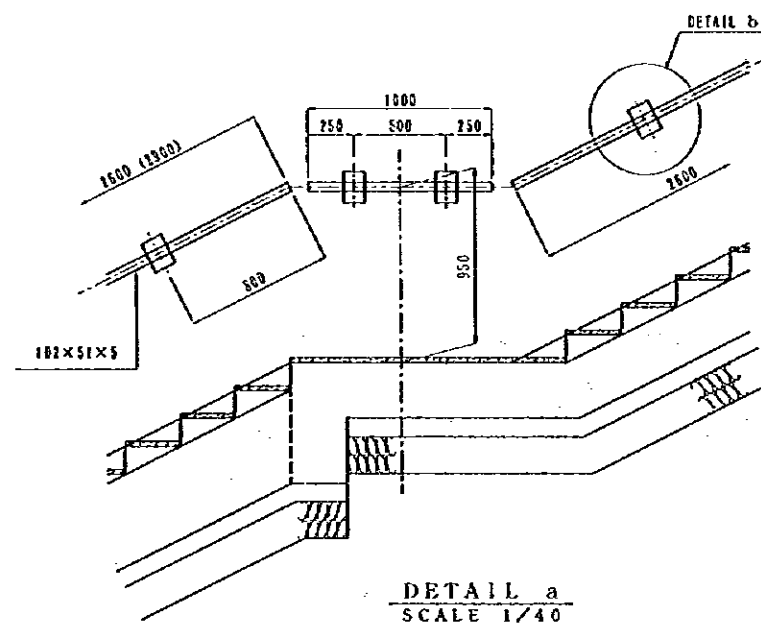
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-5, A' THARMAD GENERAL VIEW (2)  
DATE :  
DWG NO. P-2



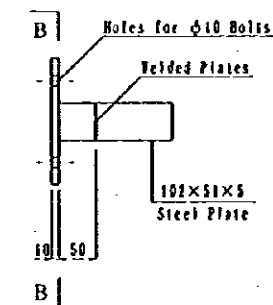
STAIR HANDRAILE (SECTION A-A)  
SCALE 1/200



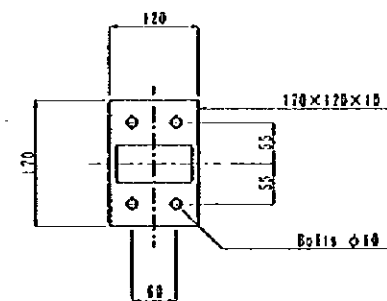
PLAN OF STAIR HANDRAILE  
SCALE 1/200



DETAIL a  
SCALE 1/40



DETAIL b  
SCALE 1/10

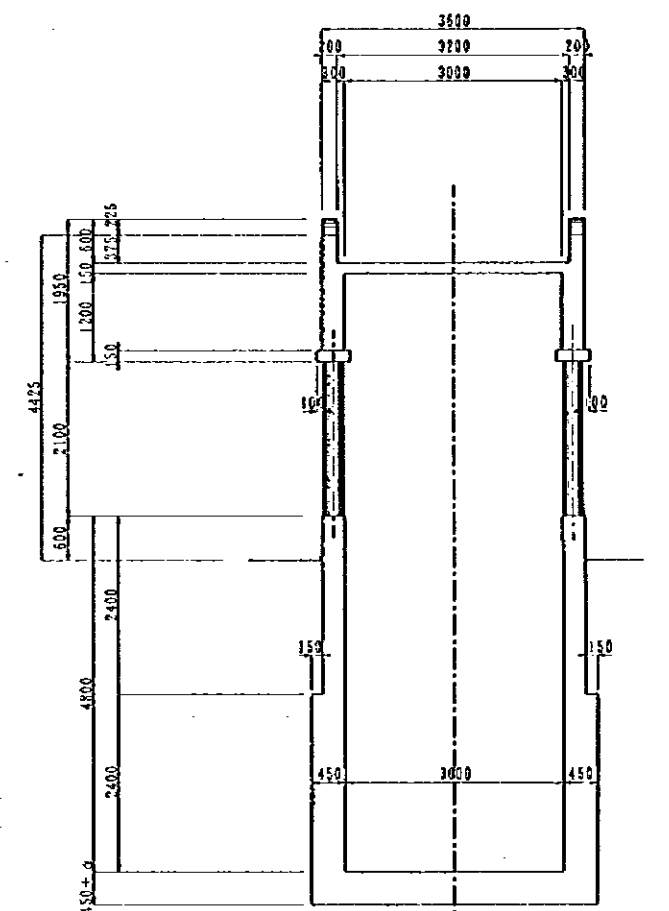
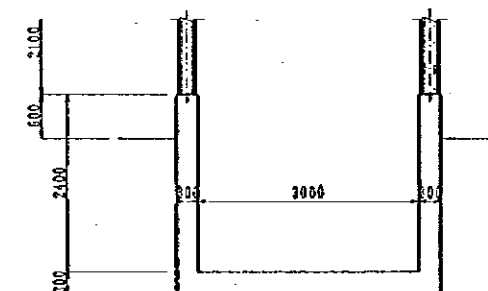
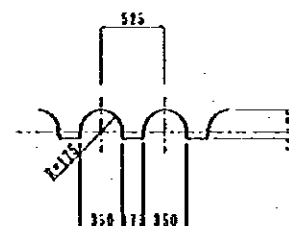
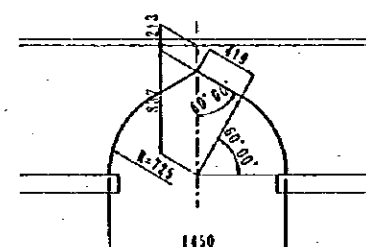
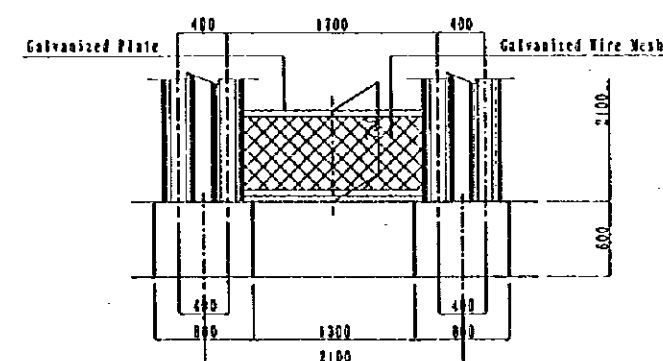
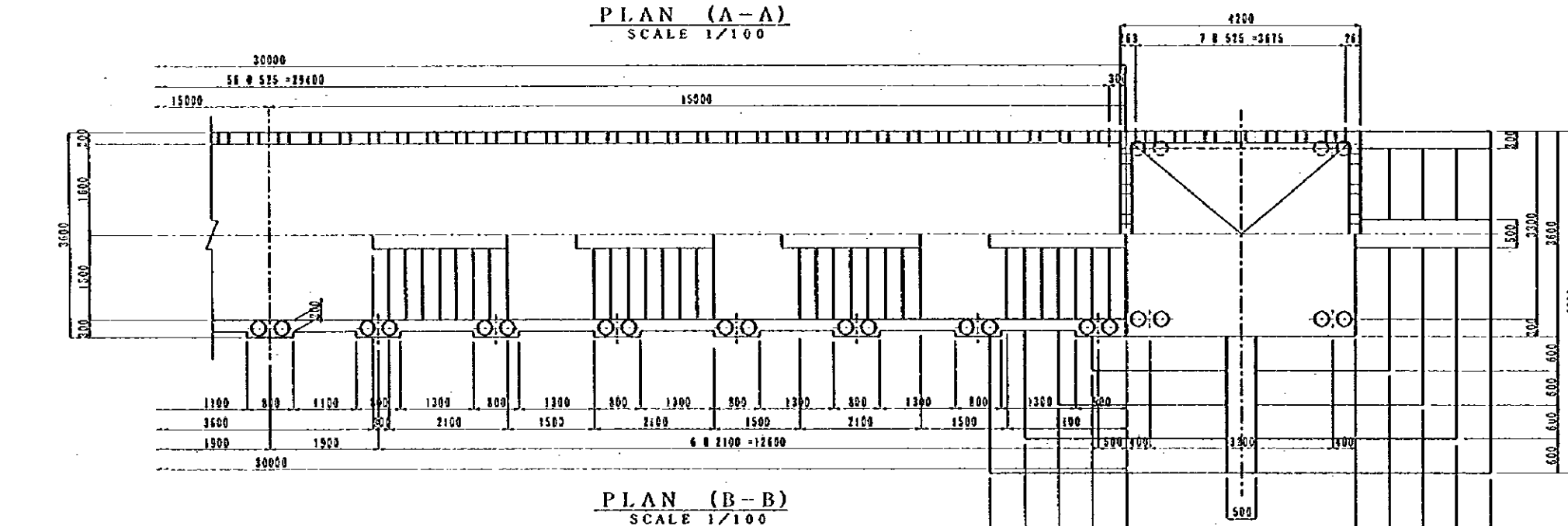
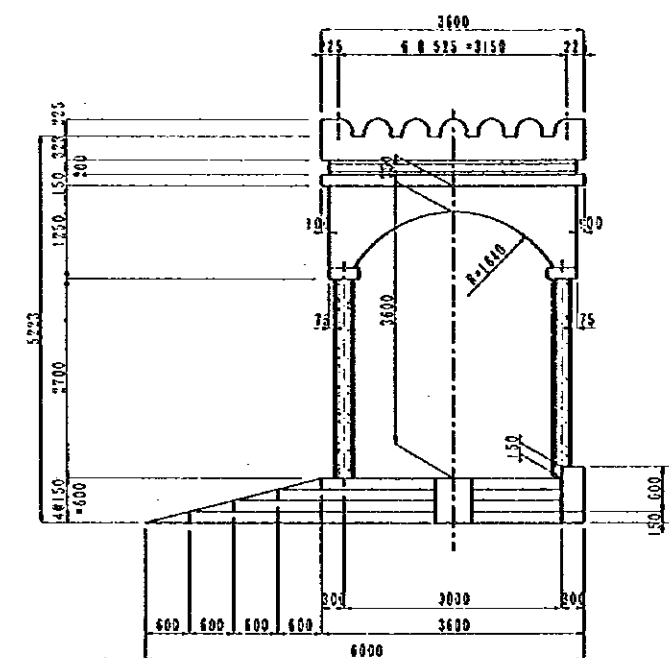
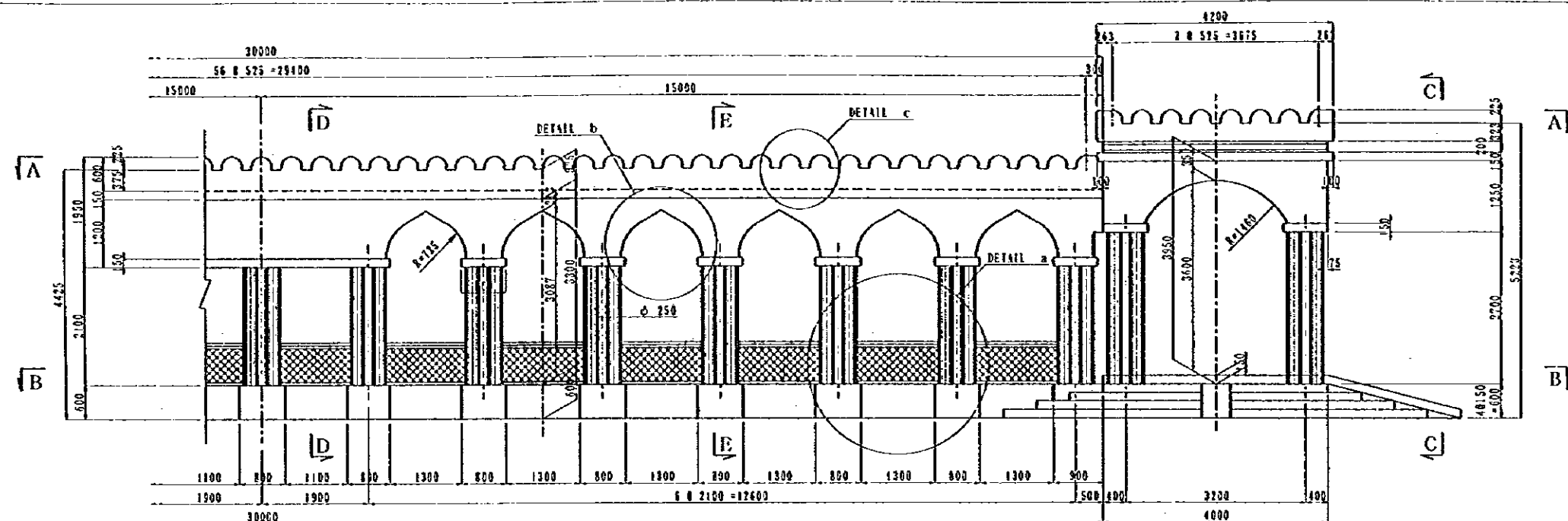


SECTION B-B  
SCALE 1/10

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

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
PERKIN+WELCH CONSULTANTS INTERNATIONAL

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



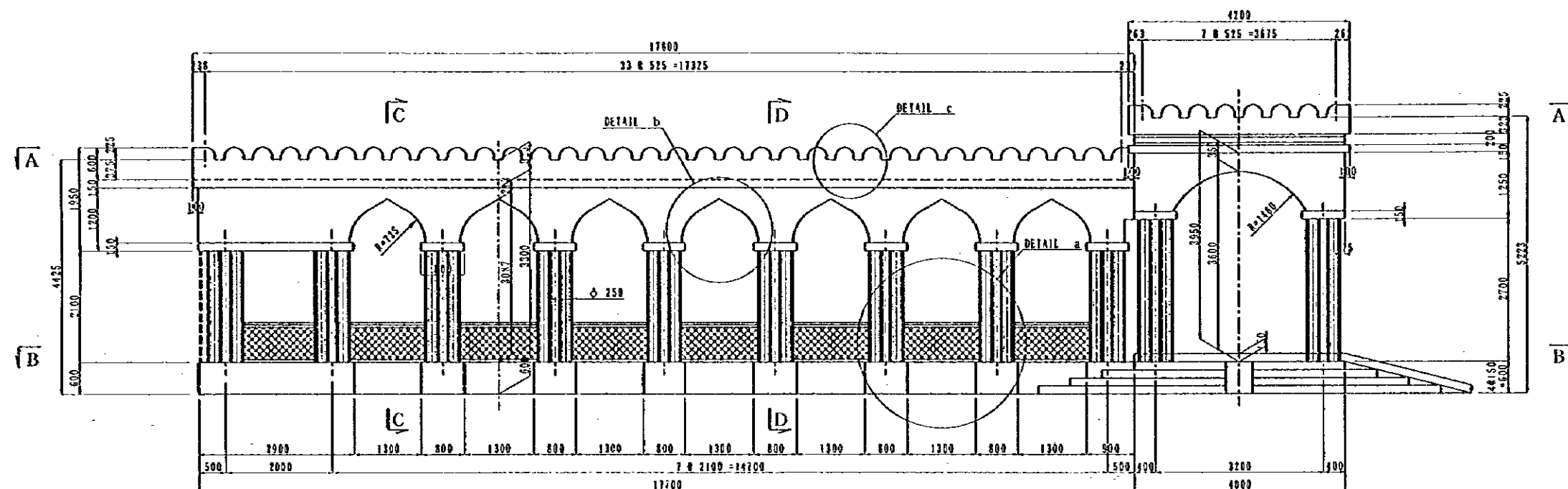
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)

JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

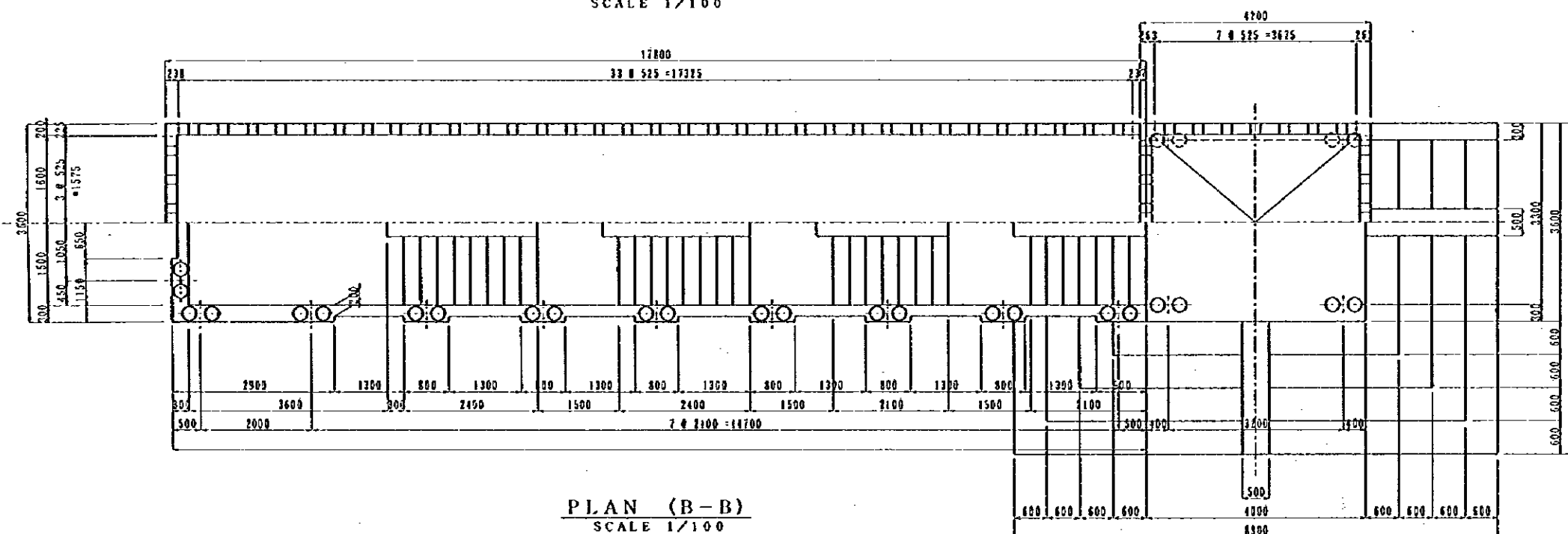
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-5, A' TAHRMAD GENERAL VIEW (4)  
DATE :  
DWG NO. P-4



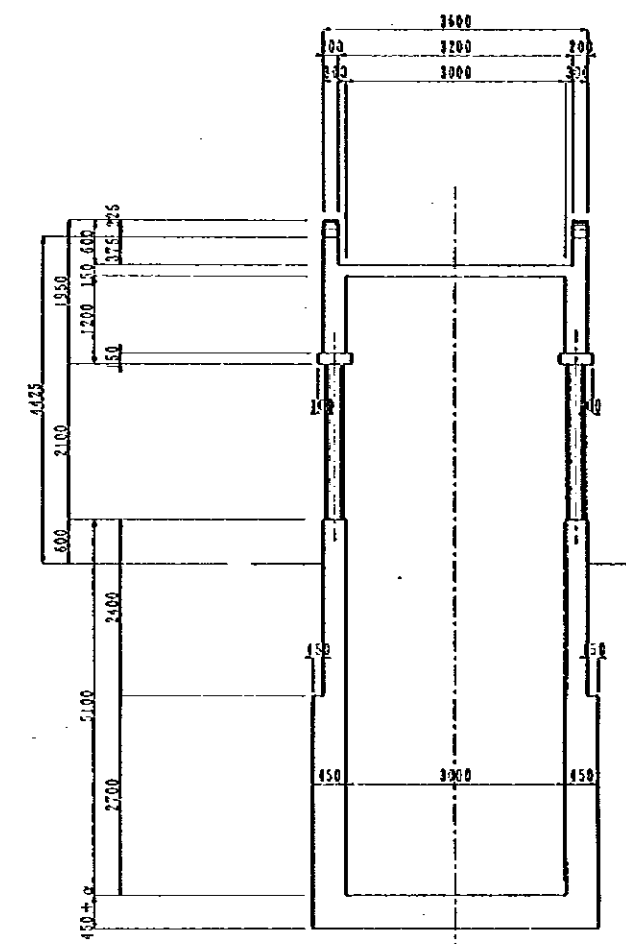


PROFILE OF CANOPY  
SCALE 1/100

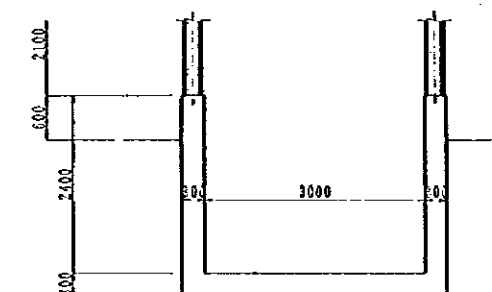
PLAN (A-A)  
SCALE 1/100



PLAN (B-B)  
SCALE 1/100



CROSS SECTION C-C  
SCALE 1/100



CROSS SECTION D-D  
SCALE 1/100

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)

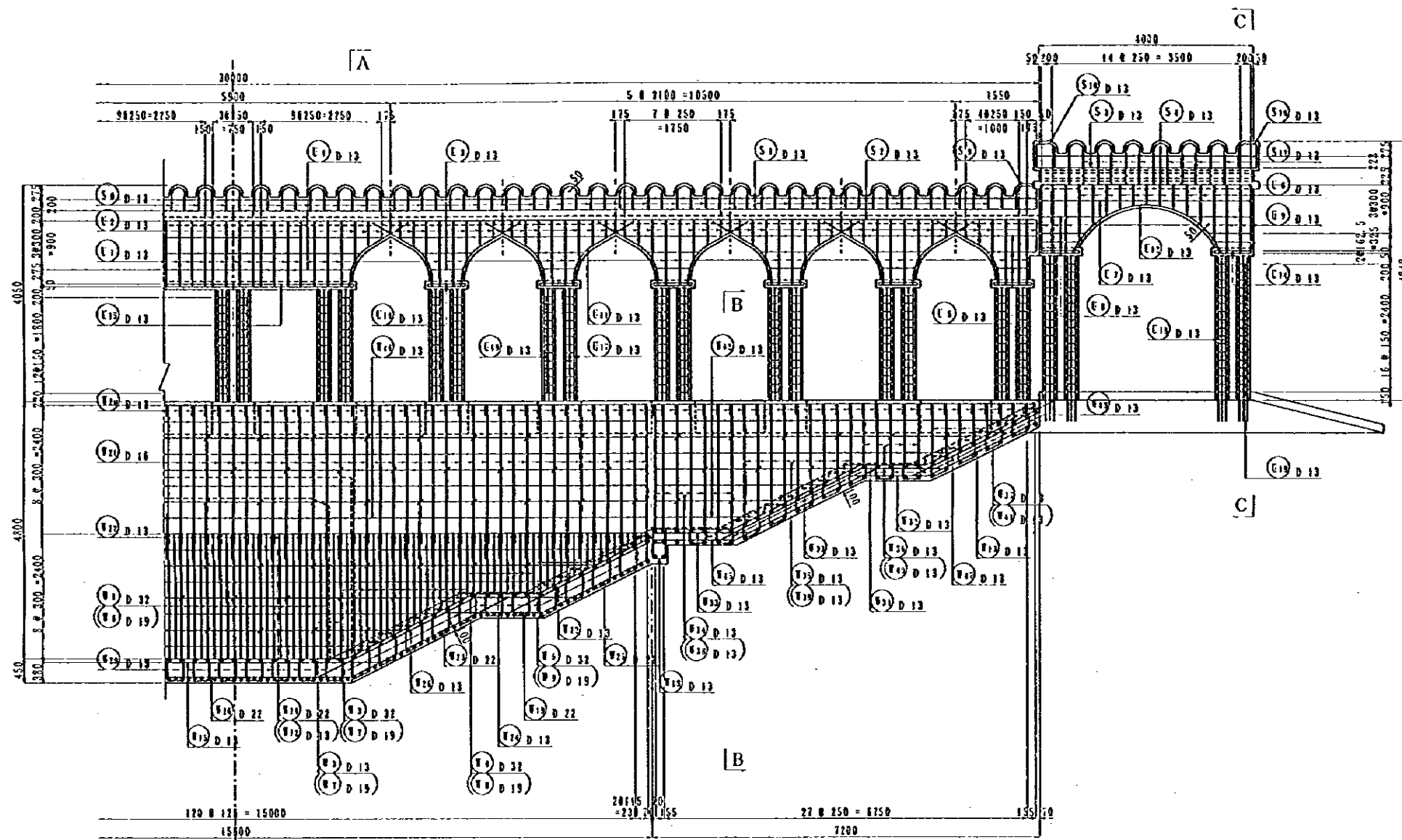
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

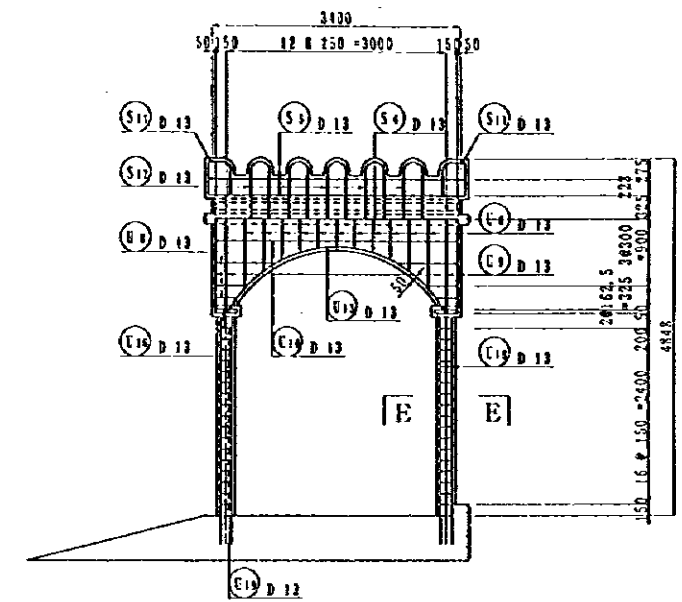
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : P/U-S, A' THARMAD GENERAL VIEW (5)

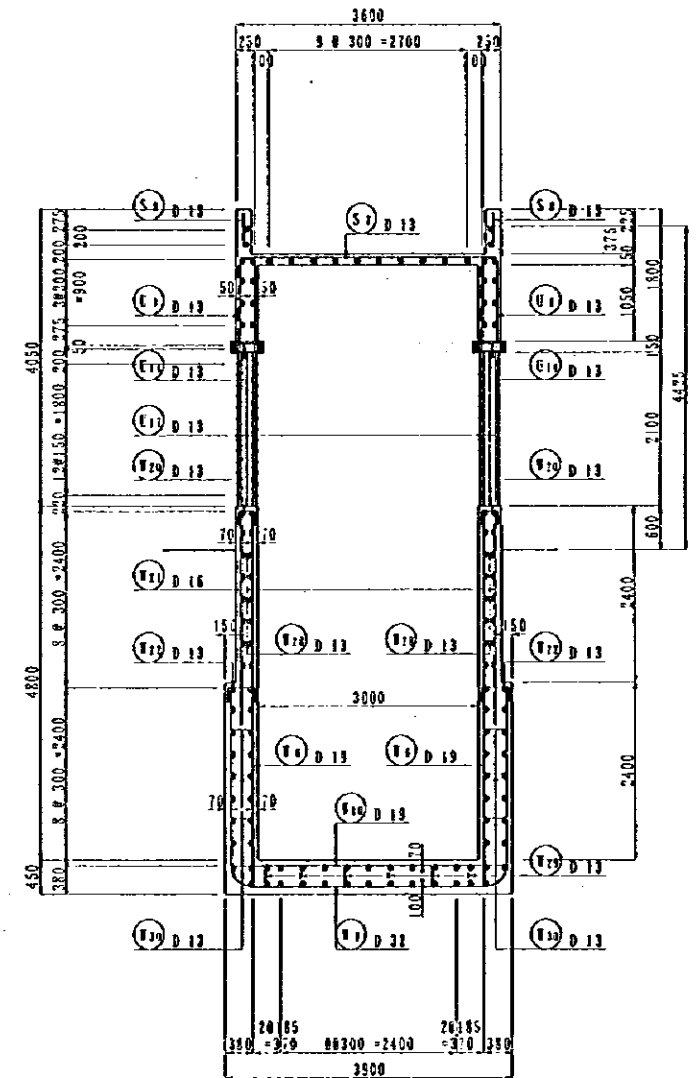
DATE : DWG NO. P-5



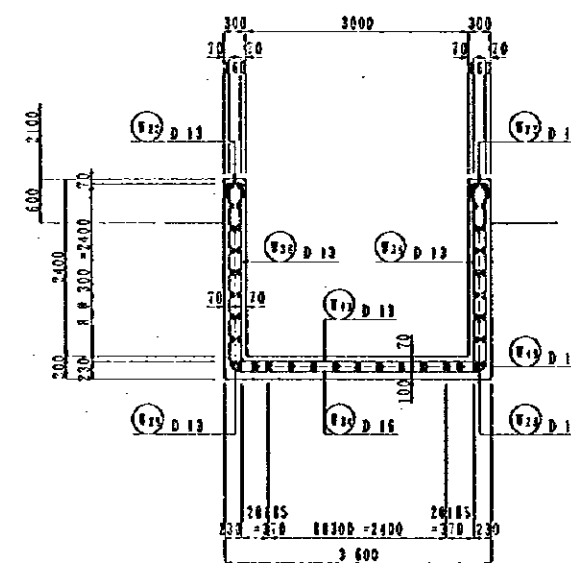
A  
SIDE VIEW  
S=1/100



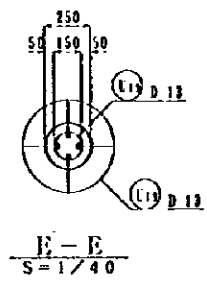
C - C  
S=1/100



A - A  
S=1/100



B - B  
S=1/100



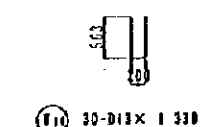
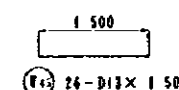
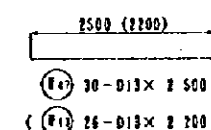
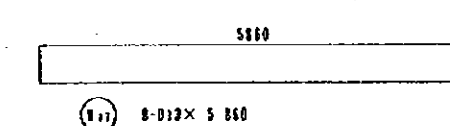
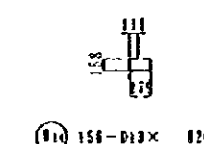
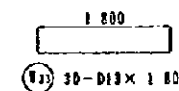
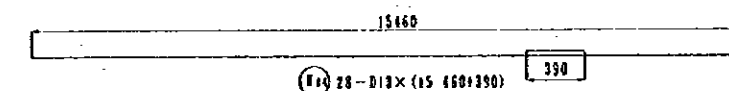
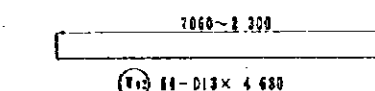
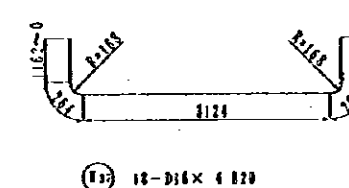
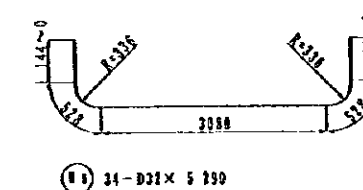
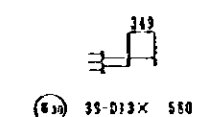
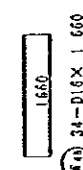
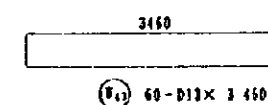
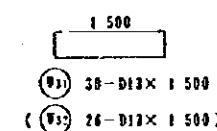
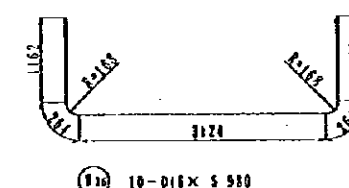
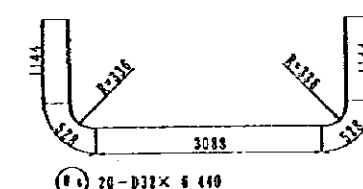
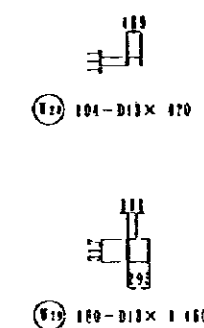
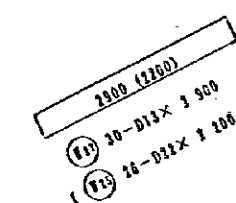
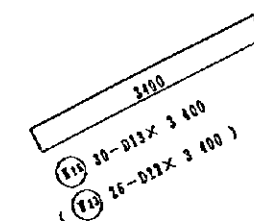
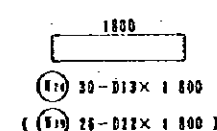
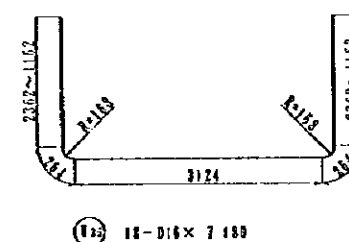
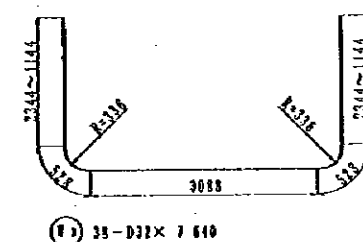
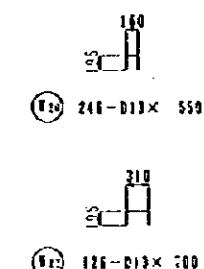
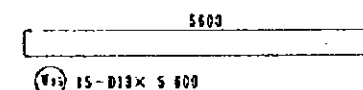
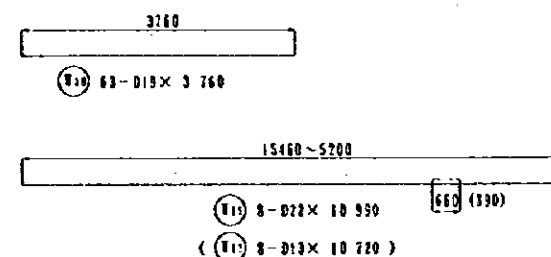
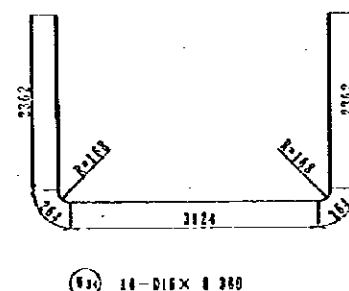
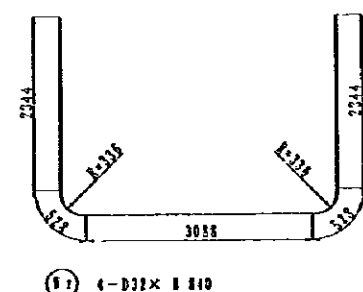
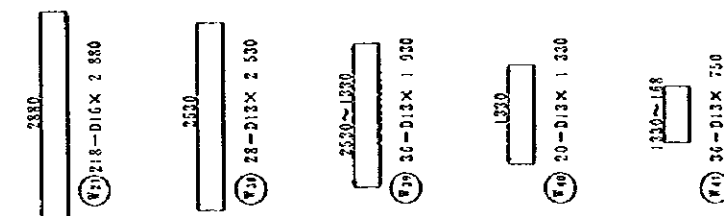
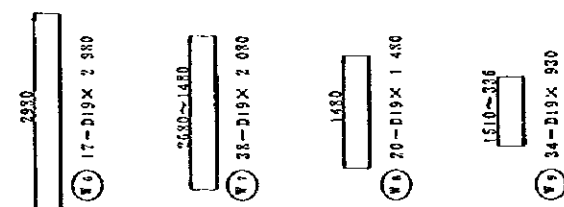
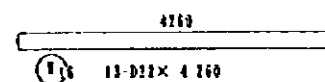
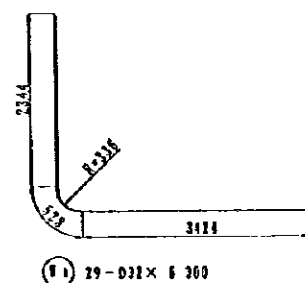
E - E  
S=1/40

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)

JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

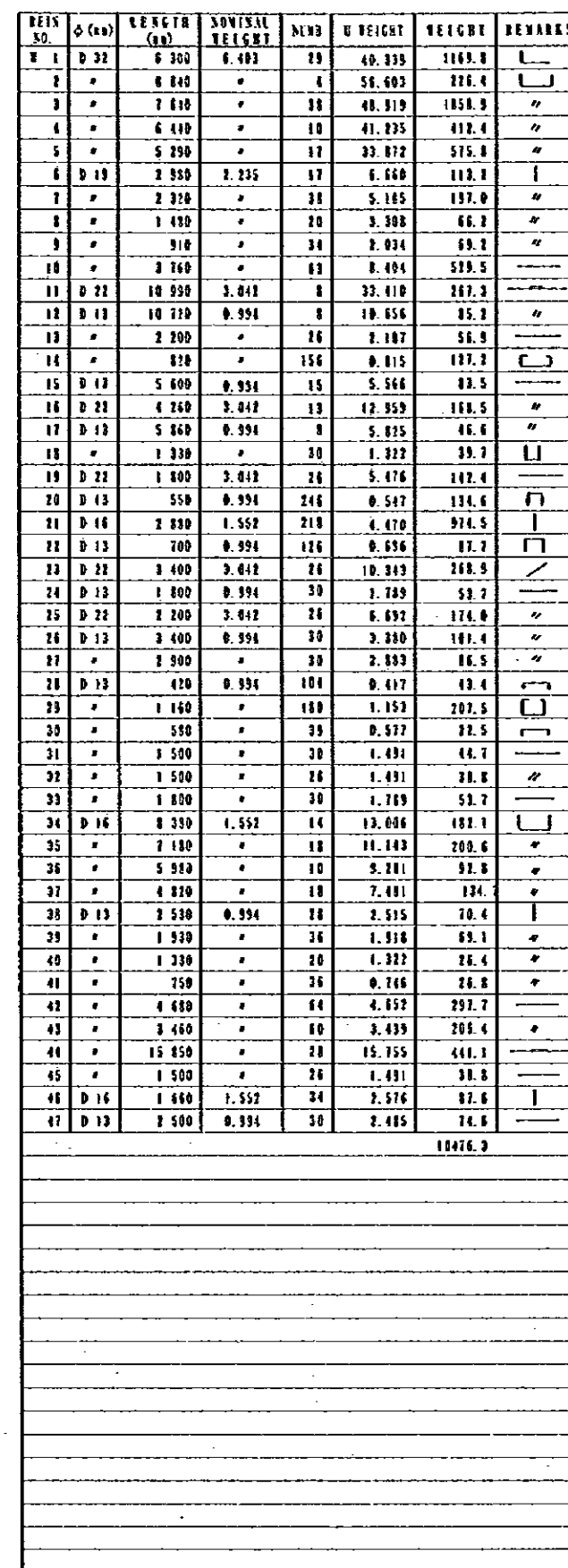
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-5, A' THIRNAD RE-BER ARRANGEMENT (I)  
DATE :  
DWG NO. P-6



NOTES:

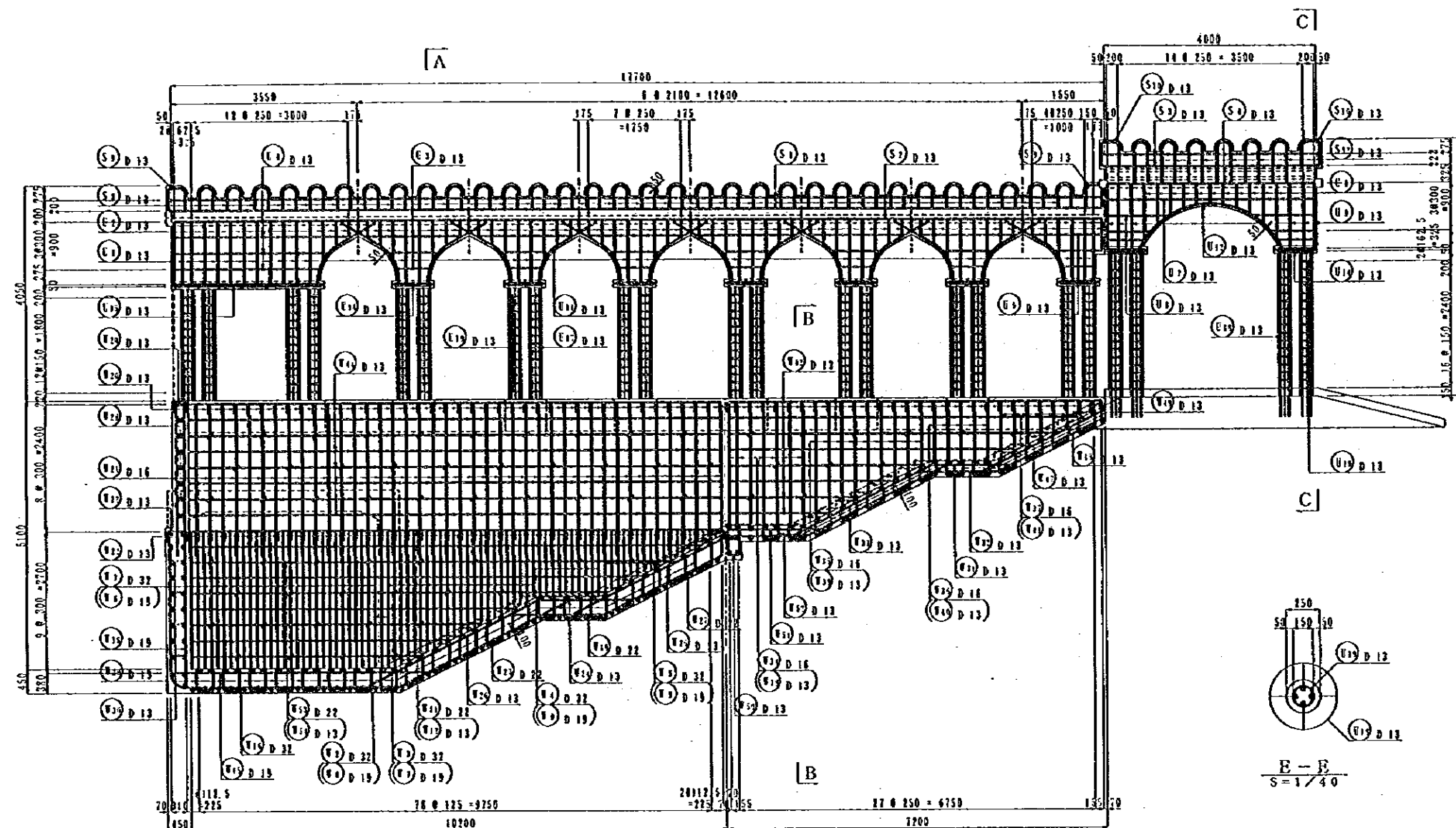
JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FLUKYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-5, A' THARMAD RE-BAR ARRANGEMENT (2)  
DATE : DEC NO. P-7

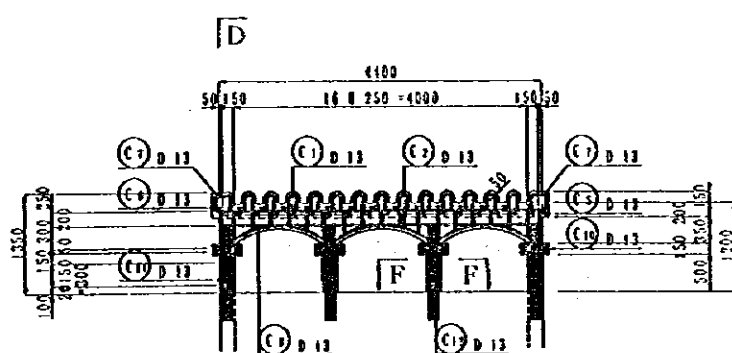


REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NO.	U WEIGHT	WEIGHT	REMARK
1	13	30 680	0.994	4	30.496	128.0	—
2	"	20 680	"	14	30.496	428.9	"
3	"	4 180	"	8	4.075	32.6	—
4	"	3 900	"	34	3.872	131.8	"
5	"	3 500	"	8	3.479	27.8	"
6	"	3 300	"	30	3.240	98.4	"
7	"	3 500	"	110	3.479	382.7	"
8	"	800	"	110	0.795	87.5	U
9	"	1 120	"	4	1.113	4.5	U
10	"	1 840	"	8	1.839	14.6	"
11	"	1 700	"	8	1.690	13.5	"
12	"	1 500	"	44	1.491	65.6	U
1 407.9							
1	13	1 230	0.994	176	1.223	215.2	I
2	"	500	"	336	0.497	167.0	"
3	"	1 200	"	120	1.193	143.1	—
4	"	5 050	"	12	5.020	60.2	"
5	"	380	"	24	0.980	23.5	"
6	"	800	"	176	0.795	140.0	I
7	"	3 900	"	8	3.872	31.0	"
8	"	600	"	96	0.596	57.3	"
9	"	1 280	"	40	1.272	50.9	—
10	"	3 300	"	8	3.280	26.1	I
11	"	1 720	"	96	1.710	164.1	—
12	"	3 450	"	8	3.463	27.8	U
13	"	3 670	"	8	3.643	29.3	U
14	"	800	"	96	0.795	76.3	U
15	"	4 600	"	8	4.672	38.6	"
16	"	400	"	96	0.358	38.1	U
17	"	3 010	"	240	1.992	218.1	I
18	"	3 610	"	64	3.588	229.7	"
19	"	540	"	1052	0.537	564.7	O
1 799.1							
1	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	8.6	"
5	"	400	"	52	0.398	20.7	I
6	"	400	"	32	0.457	14.6	U
7	"	580	"	8	0.577	4.6	U
8	"	1 850	"	6	1.839	11.0	U
9	"	1 610	"	2	1.600	3.2	"
10	"	400	"	64	0.398	25.4	U
11	"	1 410	"	32	1.192	44.6	I
12	"	700	"	24	0.696	16.7	O
209.1							
					D 32	4 242.3	
					D 22	1021.1	

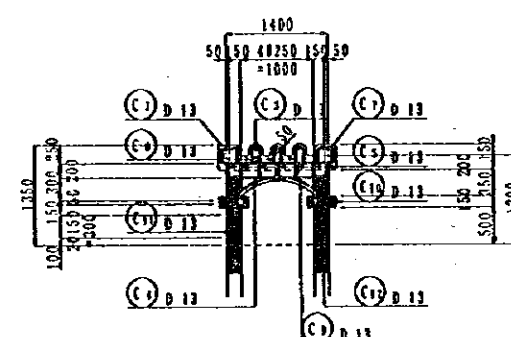
CLIENT :	MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS		
PROJECT :	D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY		
TITLE :	P/U-5, A' THARMAD RE-BAR ARRANGEMENT (3)		
DATE		DWG NO.	P-- 8



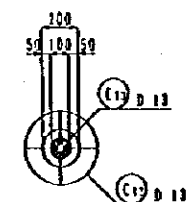
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SIDE VIEW  
S=1/100



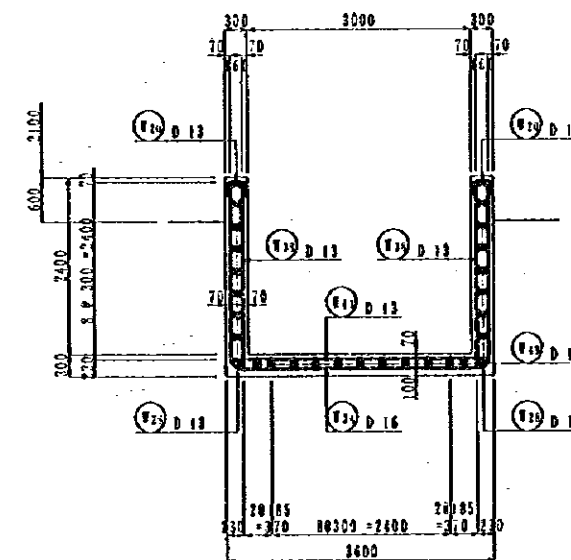
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CANOPY ON LIGHT  
S=1/100



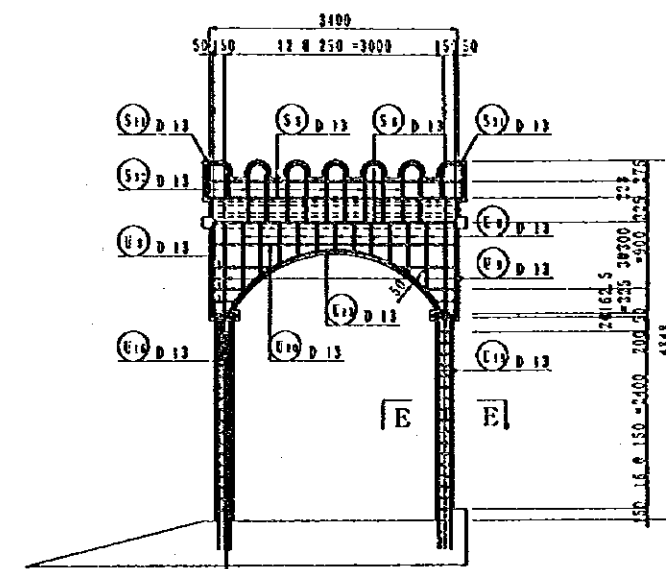
**D-D**  
S=1/100



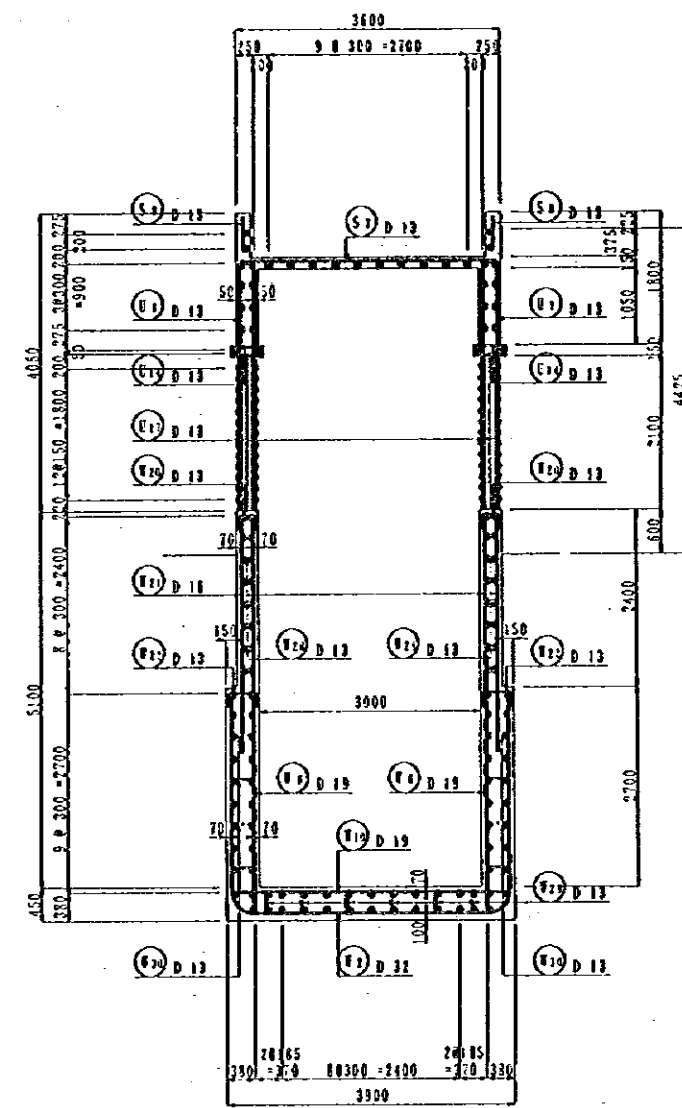
**F-F**  
S=1/40



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



**C-C**  
S=1/100

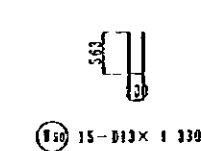
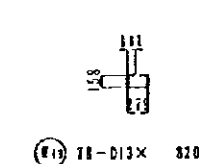
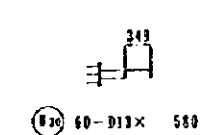
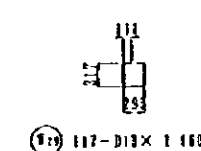
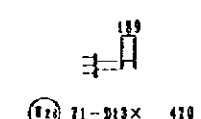
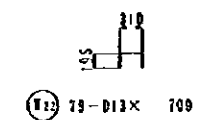
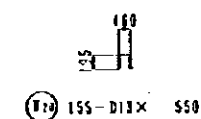
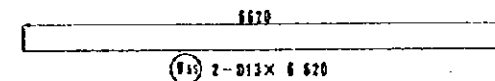
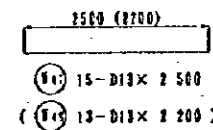
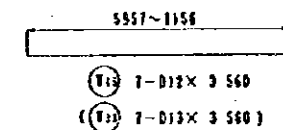
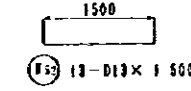
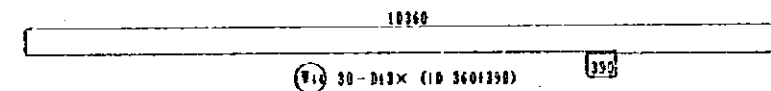
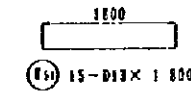
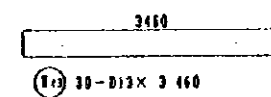
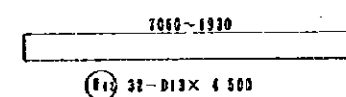
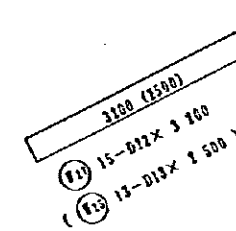
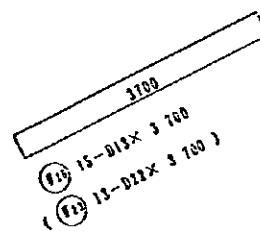
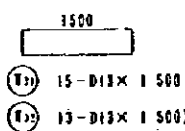
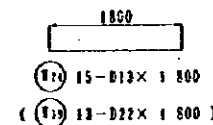
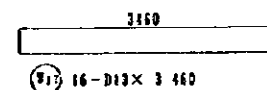
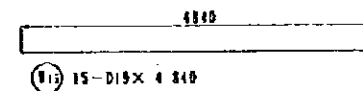
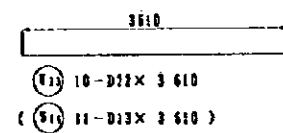
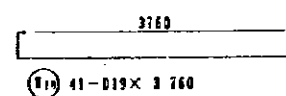
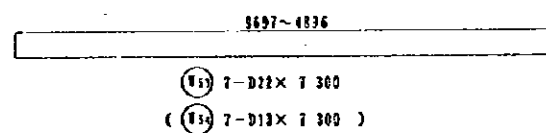
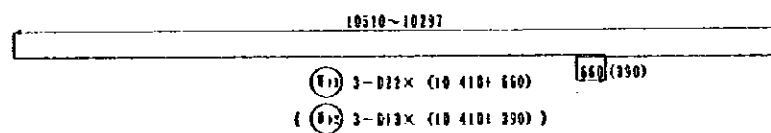
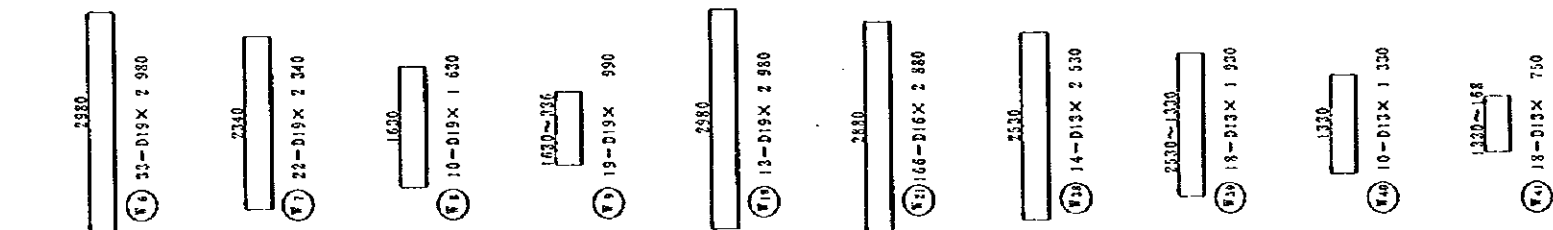
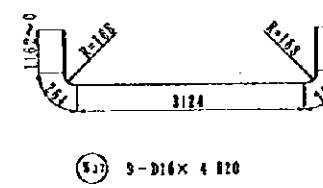
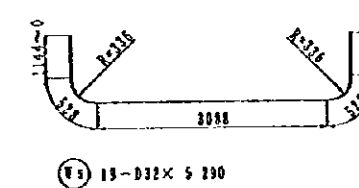
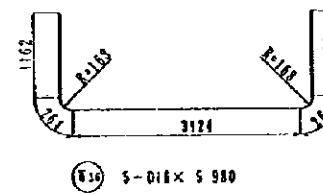
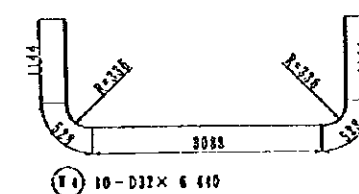
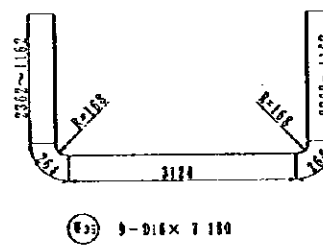
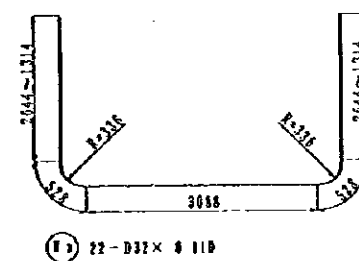
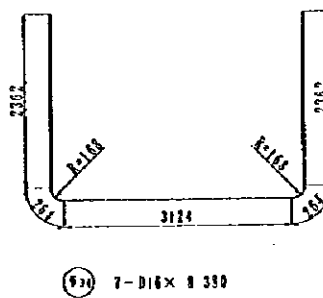
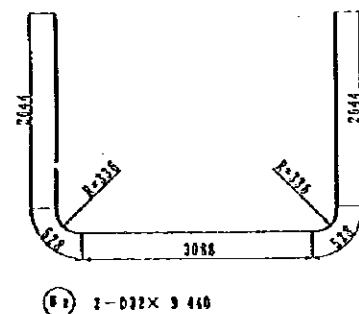
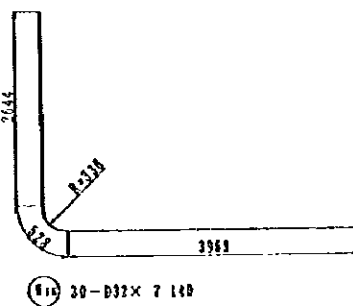
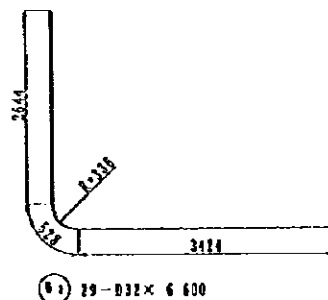


**A-A**  
S=1/100

NOTES:

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

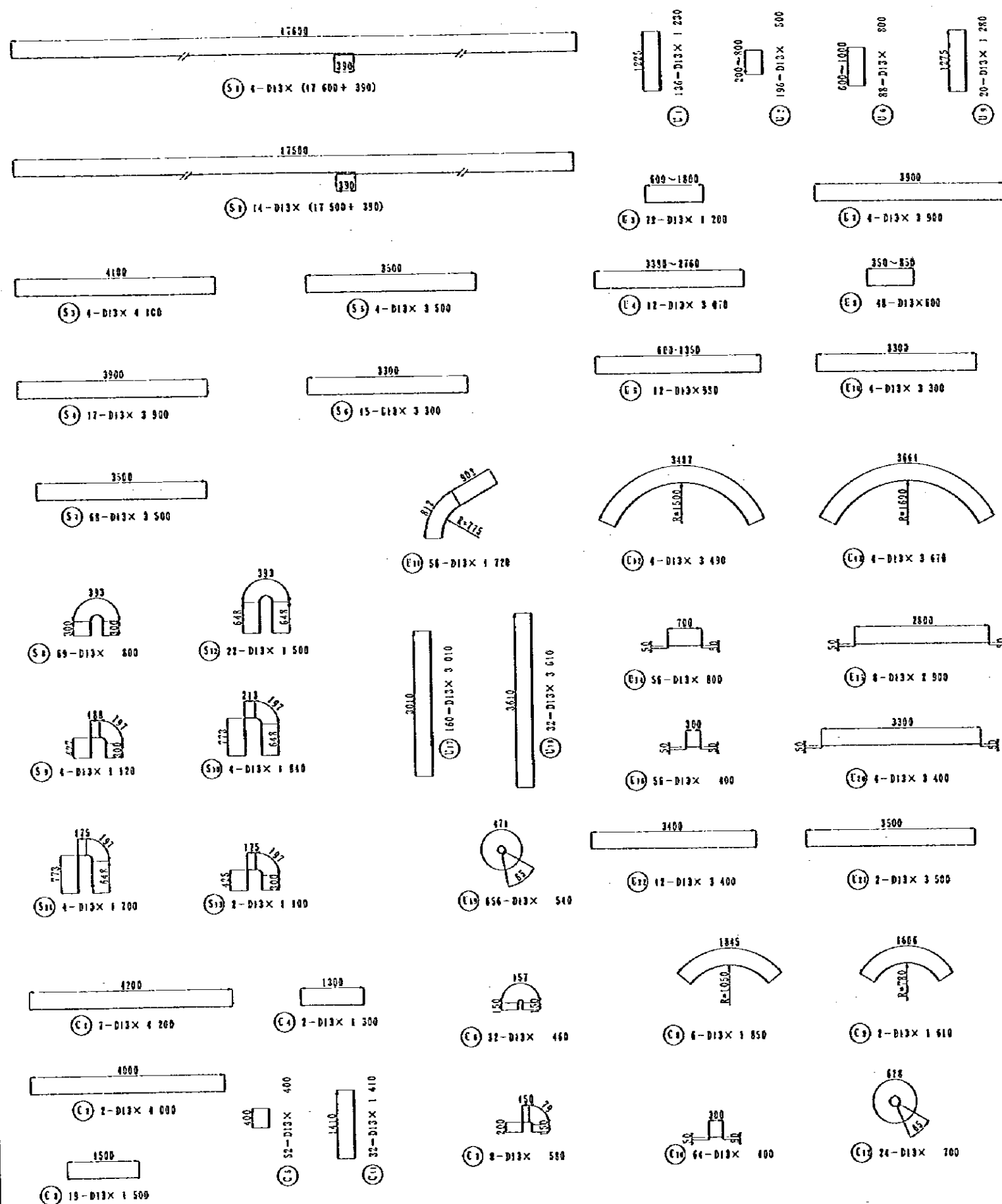
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-5, A' THARMAD RE-BAR ARRANGEMENT (4)  
DATE : DEC 80. P-9



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-5, A' THARMAD RE-BAR ARRANGEMENT (5)  
DATE :  
DWG NO. P-10



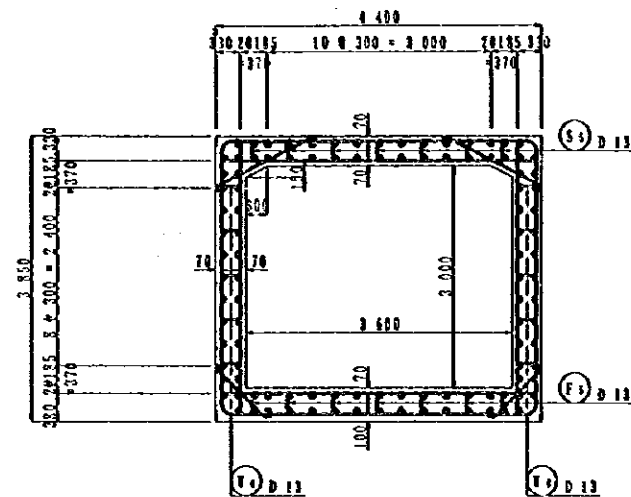
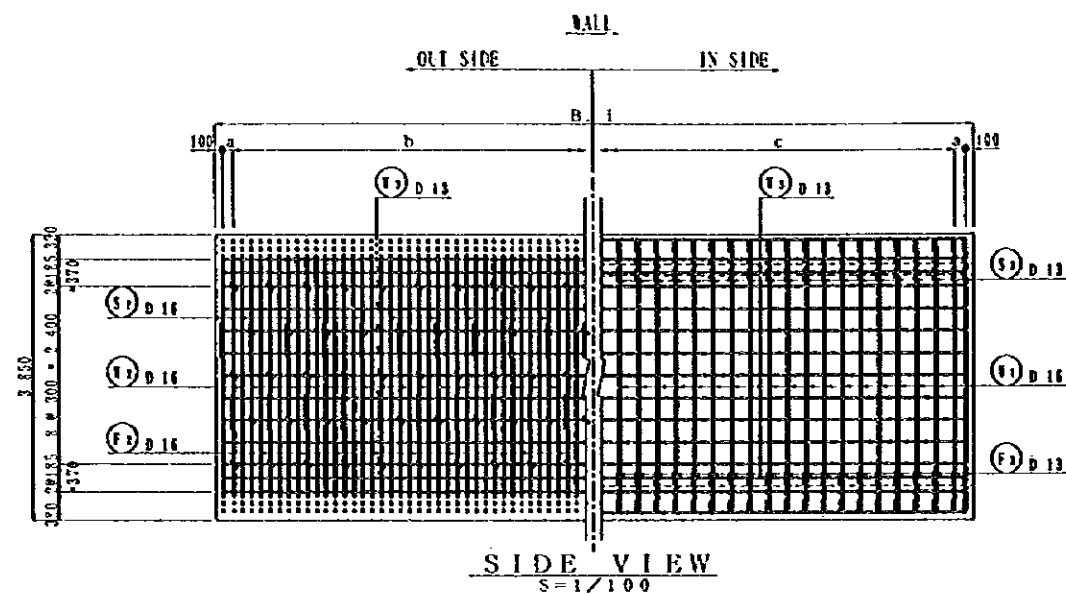
REIN. NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	SLAB	E. WEIGHT	WEIGHT	REMARKS
1	D 32	6 600	6.403	23	42.260	1225.5	L
2	"	9 440	"	2	60.444	120.9	L
3	"	8 110	"	22	51.920	1142.4	"
4	"	6 440	"	10	41.235	412.4	"
5	"	5 250	"	19	33.872	643.6	"
6	D 13	2 980	2.235	33	6.660	219.8	I
7	"	2 340	"	22	5.230	115.1	"
8	"	1 630	"	10	3.843	36.4	"
9	"	950	"	15	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	10.735	32.2	"
13	D 22	3 610	3.042	10	10.532	105.8	"
14	D 13	3 610	0.994	11	3.588	35.5	"
15	"	4 840	"	15	4.811	72.2	"
16	D 32	7 410	6.403	30	47.446	1423.4	L
17	D 13	3 460	0.994	16	3.439	55.0	"
18	D 19	2 950	2.235	13	6.660	88.6	I
19	D 22	1 800	3.042	13	5.476	71.2	"
20	D 13	550	0.994	155	0.547	84.8	I
21	D 16	2 880	1.552	168	4.470	742.0	I
22	D 13	700	0.994	29	0.896	55.0	I
23	D 22	3 700	3.042	13	11.255	146.3	I
24	D 13	1 800	0.994	15	1.789	26.8	"
25	"	2 500	"	13	2.485	32.3	"
26	"	3 700	"	15	3.618	55.2	"
27	D 22	3 200	3.042	15	9.734	146.0	"
28	D 13	420	0.994	31	0.417	37.9	"
29	"	1 160	"	117	1.153	134.9	I
30	"	580	"	69	0.577	34.6	I
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	8 380	1.552	7	13.006	91.0	I
35	"	7 180	"	7	11.143	78.0	"
36	"	5 350	"	5	9.201	46.4	"
37	"	4 820	"	9	7.481	67.3	"
38	D 13	2 530	0.994	14	2.515	35.2	I
39	"	1 930	"	18	1.918	34.5	"
40	"	1 330	"	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	I
47	D 13	2 500	0.994	15	2.495	37.3	"
48	"	2 200	"	13	2.187	28.4	"
49	"	820	"	88	0.815	55.4	I
50	"	1 330	"	15	1.322	19.8	I
51	"	1 800	"	15	1.789	26.8	"
52	"	1 500	"	13	1.491	19.4	"
53	D 22	2 300	3.042	7	21.207	155.4	"
54	D 13	2 300	0.994	7	7.258	50.8	"
55	"	6 620	"	2	6.560	13.2	"
9325.0							

REIN. NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	SLAB	E. WEIGHT	WEIGHT	REMARKS
1	D 13	17 950	0.994	4	17.881	71.5	"
2	"	17 890	"	14	17.783	249.0	"
3	"	4 100	"	1	4.075	16.3	"
4	"	3 900	"	17	3.872	65.9	"
5	"	3 500	"	4	3.475	13.9	"
6	"	3 300	"	15	3.280	49.2	"
7	"	3 500	"	68	3.479	236.6	"
8	"	800	"	69	0.795	54.9	"
9	"	1 030	"	4	1.074	4.3	"
10	"	1 810	"	4	1.829	7.3	"
11	"	1 200	"	4	1.630	6.8	"
12	"	1 500	"	22	1.491	32.8	"
13	"	1 100	"	2	1.091	2.2	"
810.7							
1	D 13	1 230	0.994	136	1.223	166.3	I
2	"	500	"	156	0.497	37.4	"
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	"	83	0.795	70.0	I
7	"	3 900	"	4	3.872	15.5	"
8	"	600	"	48	0.596	28.6	"
9	"	1 280	"	20	1.272	25.4	"
10	"	3 300	"	4	3.280	13.1	"
11	"	1 720	"	56	1.710	95.8	"
12	"	3 490	"	4	3.469	13.9	"
13	"	3 870	"	4	3.848	14.6	"
14	"	800	"	56	0.795	44.5	"
15	"	2 900	"	8	2.883	22.1	"
16	"	400	"	56	0.398	22.3	"
17	"	3 910	"	160	2.992	478.7	I
18	"	3 610	"	32	3.588	114.8	"
19	"	540	"	656	0.537	352.7	O
20	"	3 400	"	4	3.380	13.5	"
21	"	3 530	"	2	3.479	7.0	"
22	"	3 400	"	12	3.380	40.6	"
1771.6							
1	D 13	4 200	0.994	7	4.115	29.2	"
2	"	4 030	"	7	3.976	8.0	"
3	"	1 500	"	19	1.491	28.2	"
4	"	1 300	"	2	1.232	2.4	"
5	"	400	"	52	0.398	20.7	I
6	"	460	"	32	0.457	14.6	"
7	"	580	"	8	0.577	4.1	"
8	"	1 850	"	6	1.939	11.0	"
9	"	1 610	"	2	1.600	3.2	"
10	"	480	"	64	0.398	25.5	"
11	"	1 410	"	32	1.402	44.9	I
12	"	700	"	24	0.698	16.7	O
209.3							
							D 32 4968.2
							D 22 729.7
							D 19 839.0
							D 16 1112.0
							D 13 4457.7
							TOTAL WEIGHT 12116.6

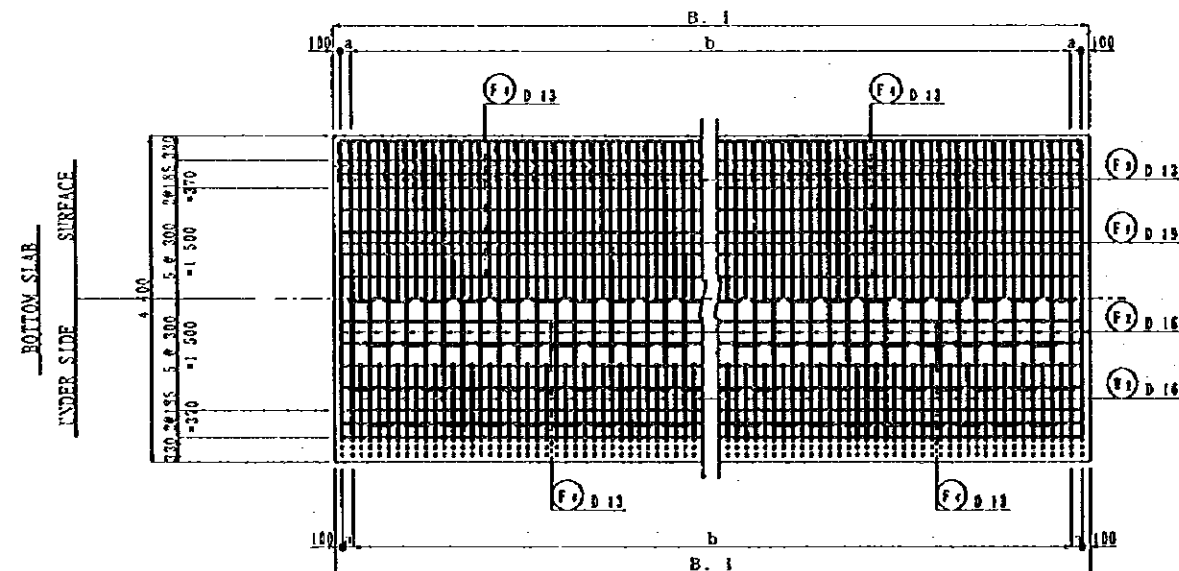
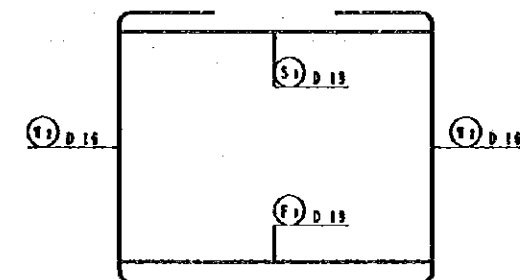
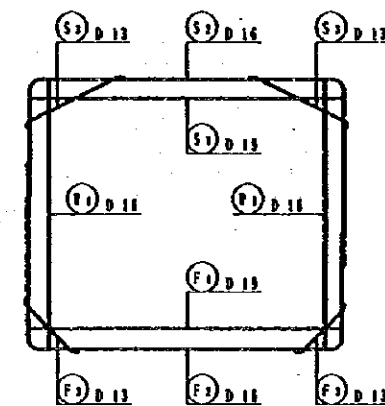
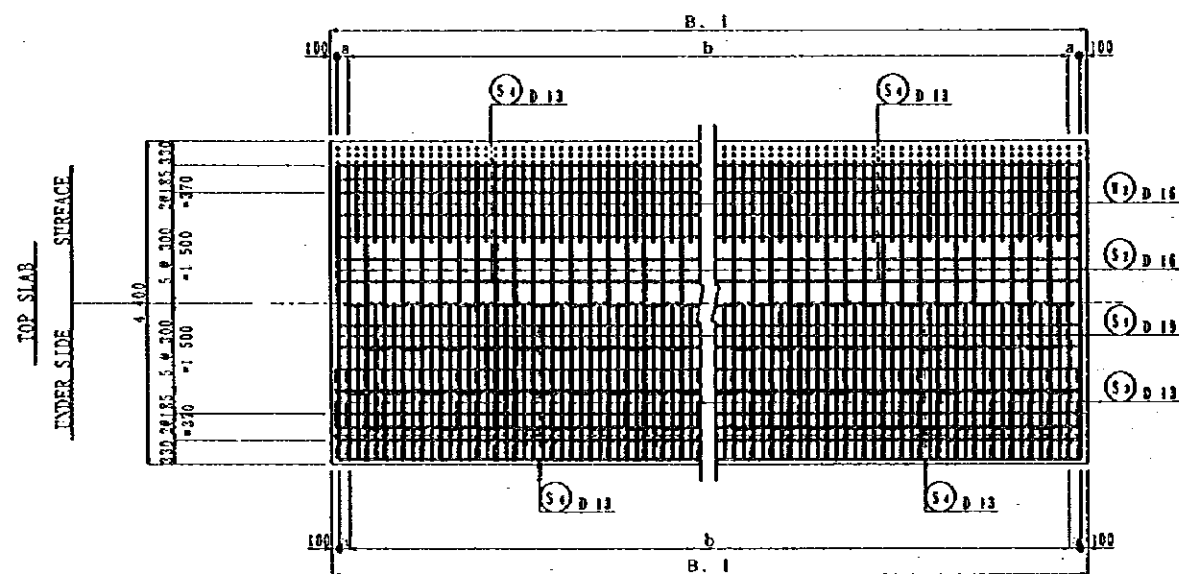
NOTES:

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-5, A' THARMAD RE-BAR ARRANGEMENT (6)  
DATE : DWG NO. P-11



SECTION  
S=1/100



PLAN  
S=1/100

	B. i	a	b	c
TYPE A	15 000	150	116 Ø 125	58 Ø 250
TYPE C	6 850	200	50 Ø 125	25 Ø 250
TYPE D	10 850	200	82 Ø 125	41 Ø 250

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)

JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
SEKUTAMA CONSULTANTS INTERNATIONAL

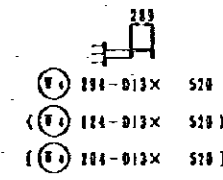
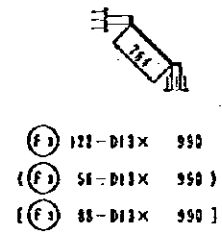
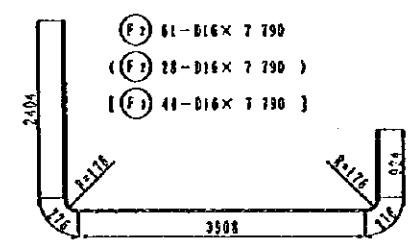
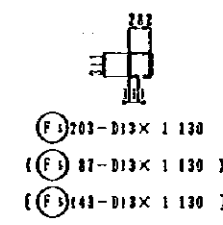
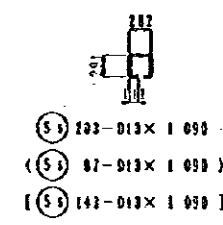
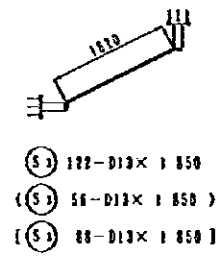
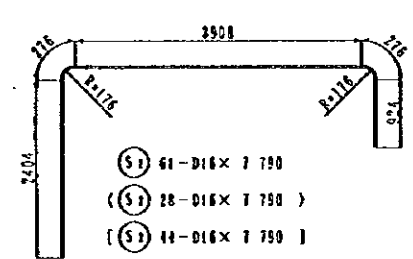
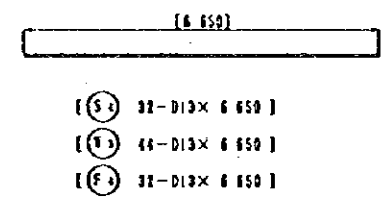
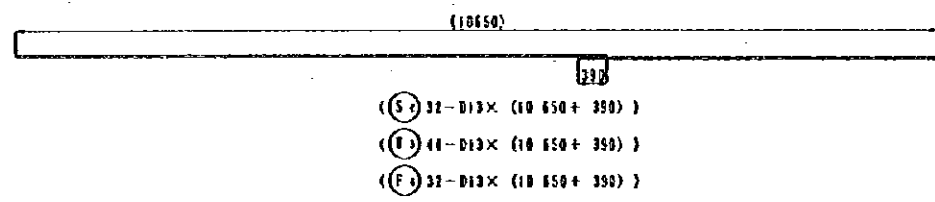
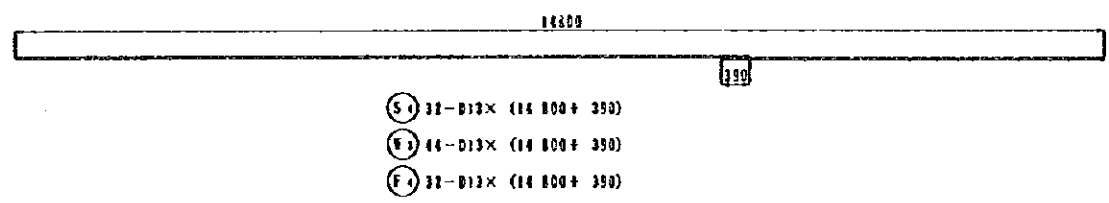
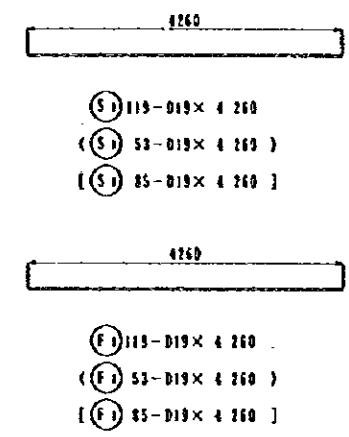
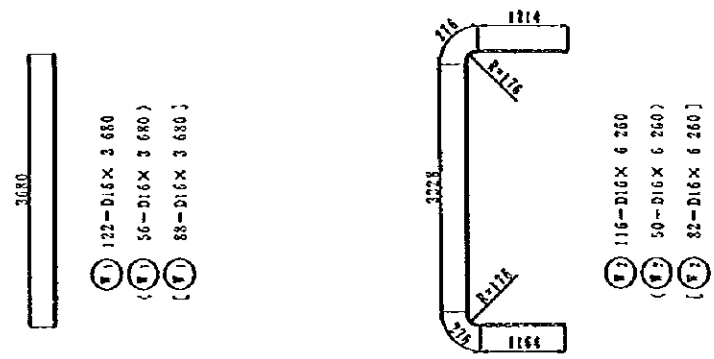
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

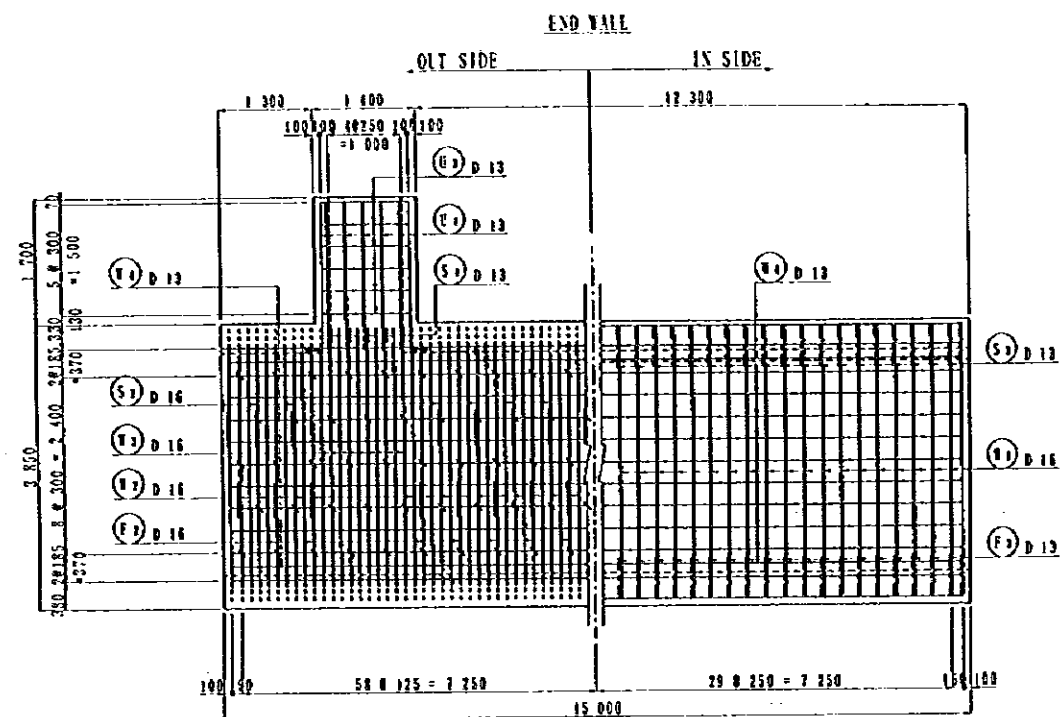
TITLE : P/U-S, A' THARMAD RE-BAR ARRANGEMENT (7)

DATE : DWG NO. P- 12

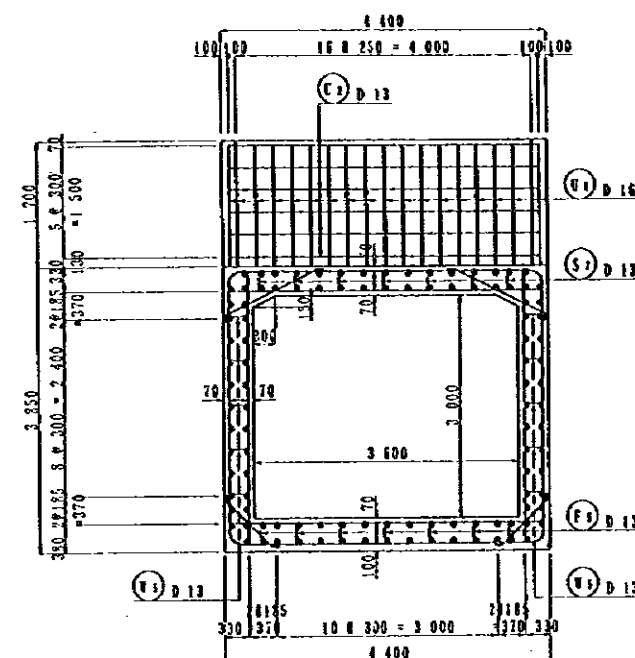




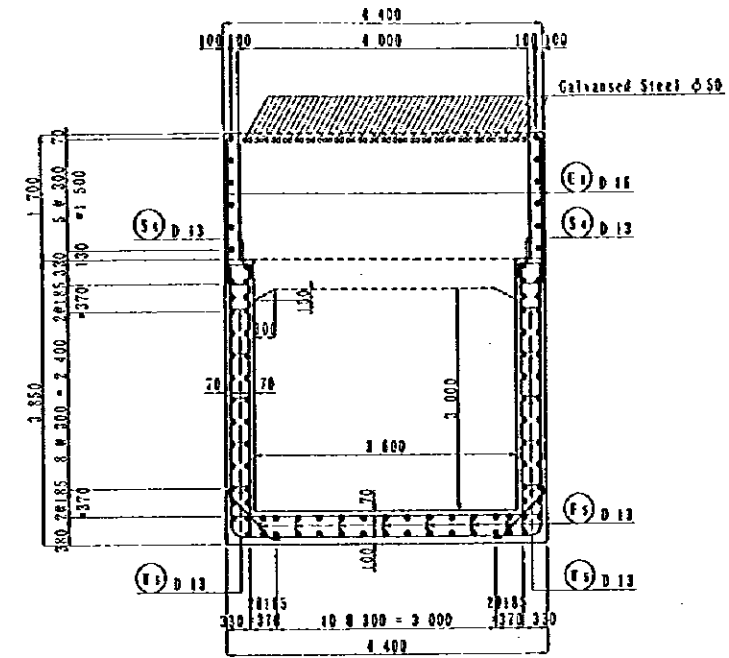
REIN NO	Ø (mm)	LENGTH (mm)	NO. OF REIN	WEIGHT (kg)	REMARKS
TYPE-A					
1	D 19	4 260	2 235	119	9.521
2	D 16	7 790	1.552	41	12.090
3	D 13	1 850	0.994	122	1.839
4	"	15 190	"	32	15.099
5	"	1 090	"	203	1.083
6	D 16	3 680	1.552	122	5.711
7	"	6 260	"	116	9.716
8	D 13	15 190	0.994	44	15.099
9	"	520	"	294	0.517
10	D 19	4 260	2.235	119	9.521
11	D 16	7 790	1.552	41	12.090
12	D 13	990	0.994	122	0.984
13	"	15 190	"	32	15.099
14	"	1 130	"	203	1.173
					8139.8
TYPE-B					
1	D 19	4 260	2.235	53	9.521
2	D 16	7 790	1.552	20	12.090
3	D 13	1 850	0.994	56	1.839
4	"	6 650	"	32	6.610
5	"	1 090	"	87	1.083
6	D 16	3 680	1.552	56	5.711
7	"	6 260	"	50	9.716
8	D 13	6 650	0.994	44	6.610
9	"	520	"	124	0.517
10	D 19	4 260	2.235	53	9.521
11	D 16	7 790	1.552	20	12.090
12	D 13	990	0.994	56	0.984
13	"	6 650	"	32	6.610
14	"	1 130	"	87	1.173
					3619.7
TYPE-C					
1	D 19	4 260	2.235	85	9.521
2	D 16	7 790	1.552	44	12.090
3	D 13	1 850	0.994	88	1.839
4	"	11 040	"	32	10.974
5	"	1 090	"	143	1.083
6	D 16	3 680	1.552	88	5.711
7	"	6 260	"	82	9.716
8	D 13	11 040	0.994	44	4.771
9	"	520	"	204	0.517
10	D 19	4 260	2.235	85	9.521
11	D 16	7 790	1.552	44	12.090
12	D 13	990	0.994	88	0.984
13	"	11 040	"	32	4.771
14	"	1 130	"	143	1.173
					5836.6
					8 19
					8 16
					8 13
					5557.6
					TOTAL WEIGHT 17556.1



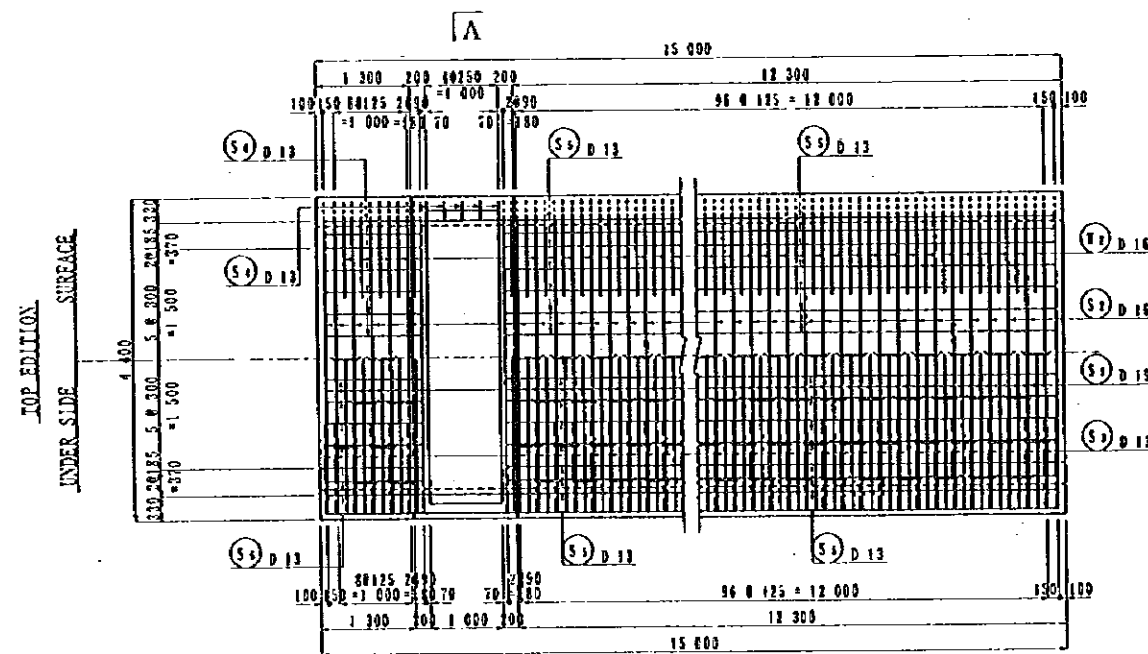
SIDE VIEW  
S=1/100



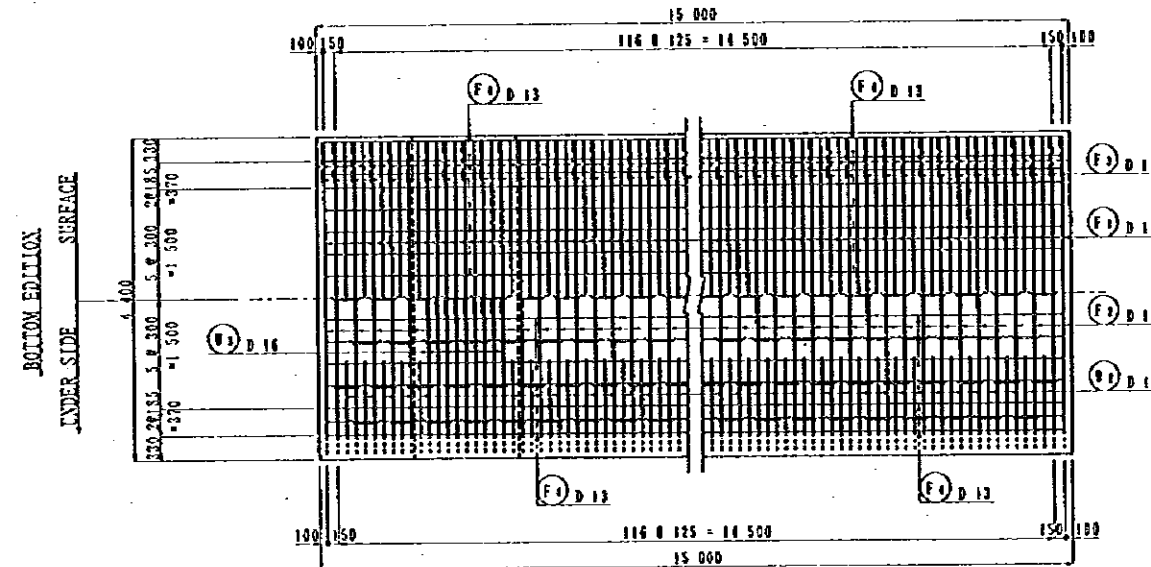
SECTION  
S=1/100



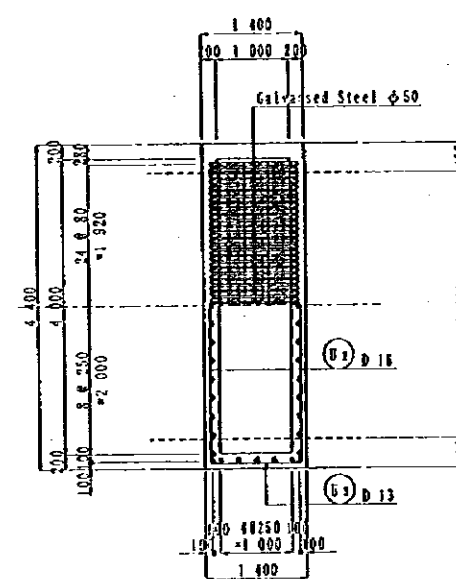
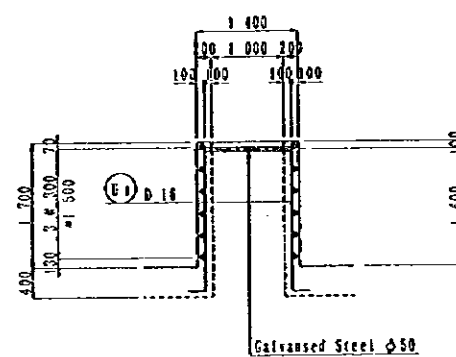
A-A  
S=1/100



PLAN  
S=1/100



PLAN  
S=1/100



NOTES:

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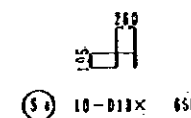
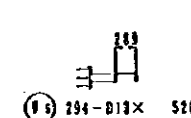
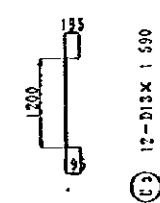
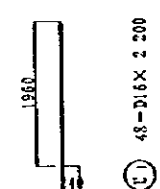
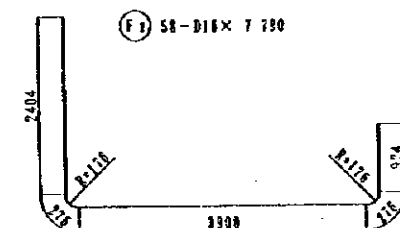
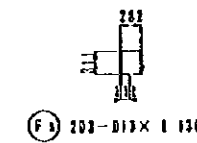
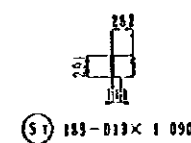
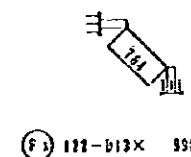
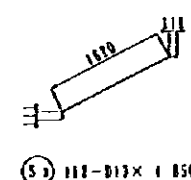
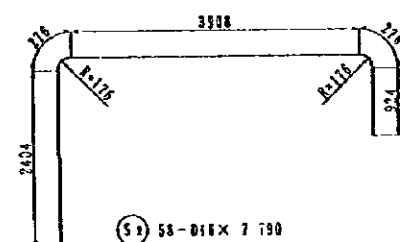
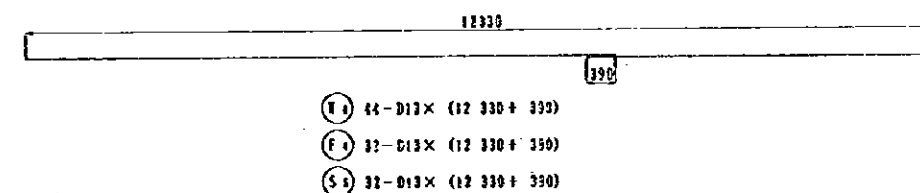
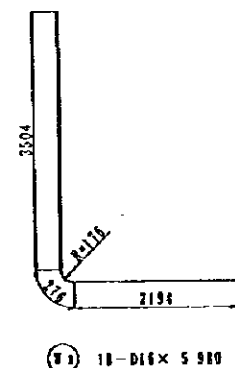
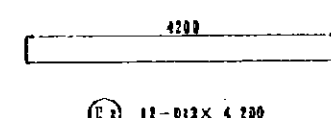
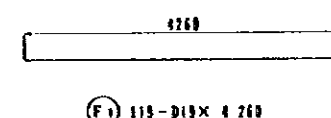
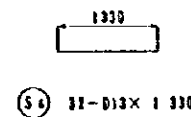
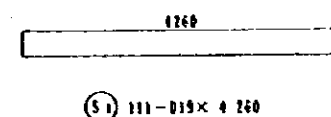
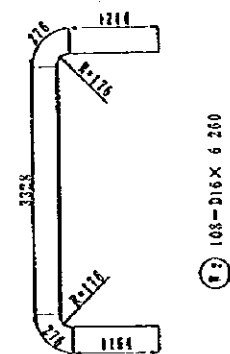
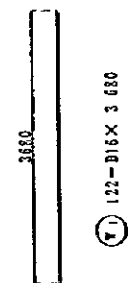
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : P/U-5, A' THARMAD RE-BAR ARRANGEMENT (9)

DATE : DWG NO. P-14



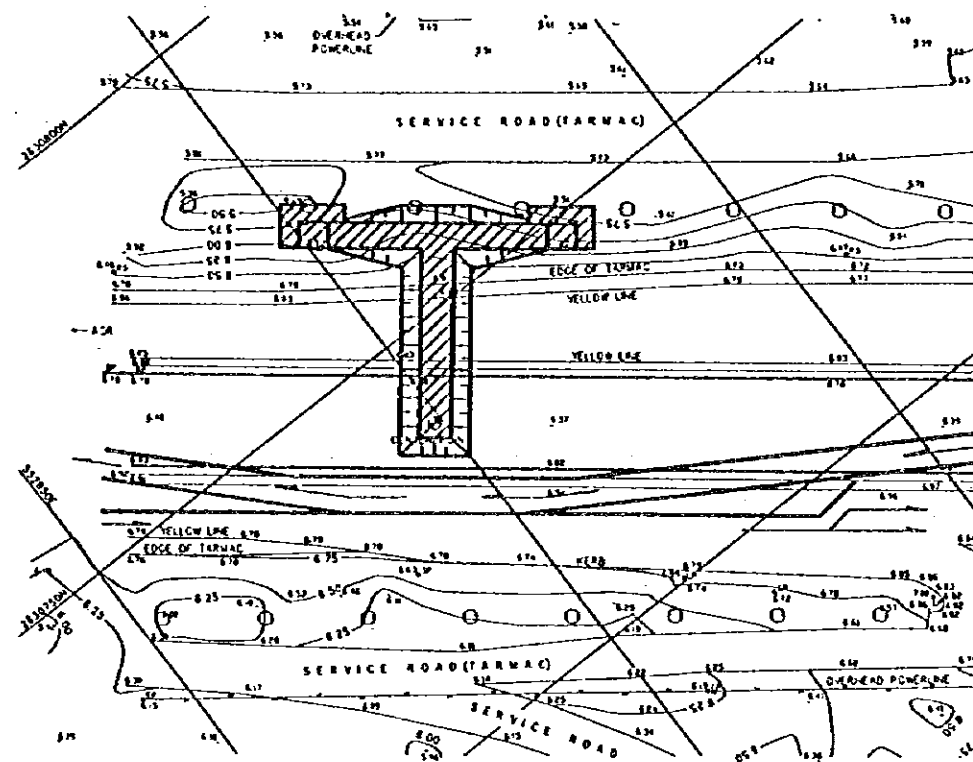
REIN NO.	Ø (mm)	LENGTH (mm)	SECTIONAL WEIGHT	NO.	WEIGHT	WEIGHT	REMARKS
TYPE-B							
S 1	D 19	4 260	2.235	111	9.521	1058.8	—
2	D 16	7 790	1.552	58	12.030	781.2	—
3	D 13	1 850	0.994	112	1.829	206.8	—
4	"	650	"	10	0.646	6.5	—
5	"	12 720	"	32	12.644	404.6	—
6	"	1 330	"	32	1.322	42.3	—
7	"	1 090	"	183	1.033	188.7	—
U 1	D 16	3 680	1.552	122	5.711	494.7	—
2	"	6 260	"	108	9.216	1043.3	—
3	"	5 980	"	18	9.281	167.1	—
4	D 13	12 720	0.994	44	12.644	558.3	—
5	"	520	"	254	0.517	132.0	—
F 1	D 19	4 260	2.235	107	9.521	1133.0	—
2	D 16	7 790	1.552	58	12.030	781.2	—
3	D 13	990	0.994	122	0.994	120.0	—
4	"	12 720	"	32	12.644	404.6	—
5	"	1 130	"	203	1.129	228.0	—
U 1	D 16	2 200	1.552	48	3.411	183.9	—
2	D 13	4 200	0.994	12	4.475	50.1	—
3	"	1 590	"	12	1.580	19.0	—
						D 19	2183.8
						D 16	3419.4
						D 13	2294.1
						TOTAL WEIGHT	8063.3

NOTES:

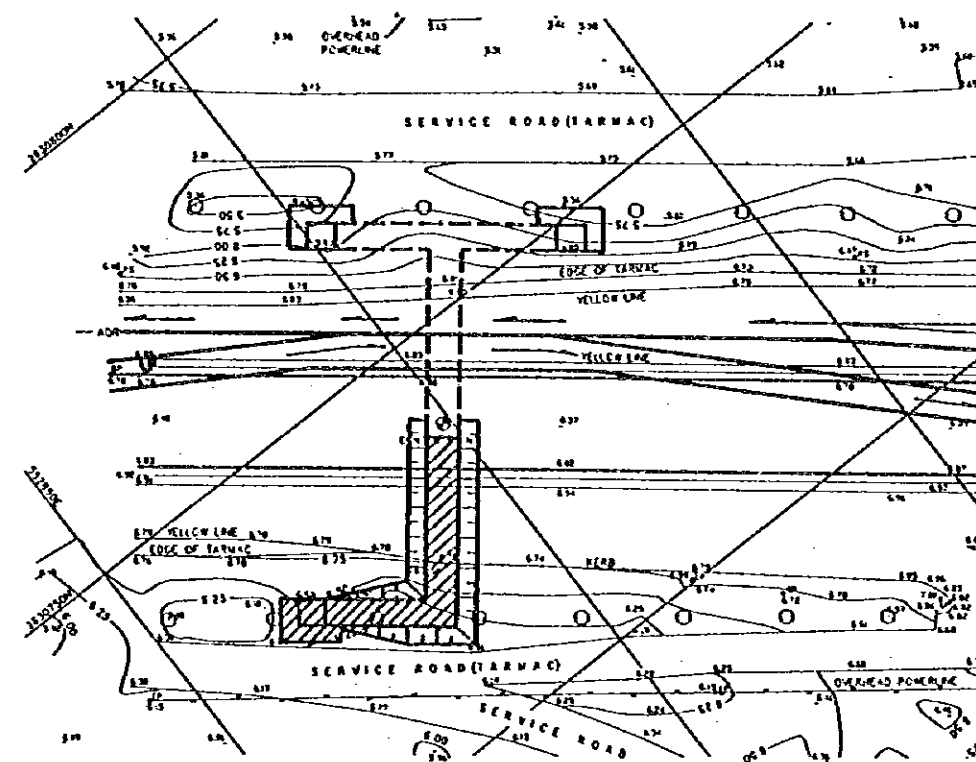
JAPAN INTERNATIONAL COOPERATION AGENCY  
(JICA)  
JICA STUDY TEAM  
PACIFIC CONSULTANTS INTERNATIONAL  
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE : P/U-5, A' THIRIAD RE-BAR ARRANGEMENT (10)  
DATE :  
DWG NO. P-15

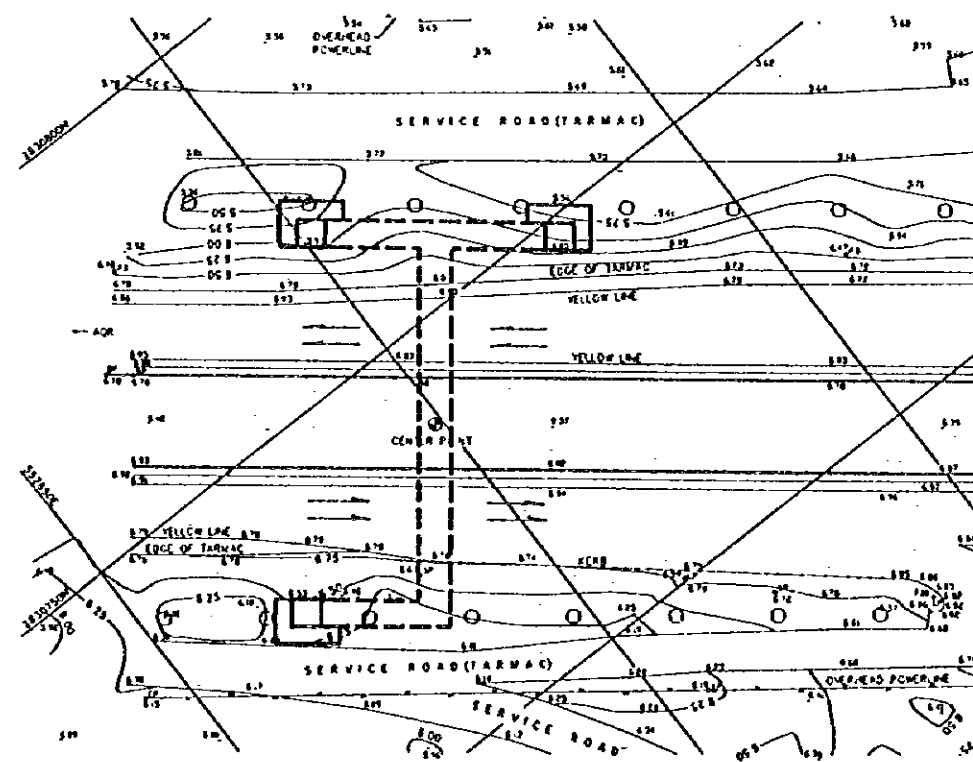
### FIRST CONSTRUCTION STAGE



### 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.

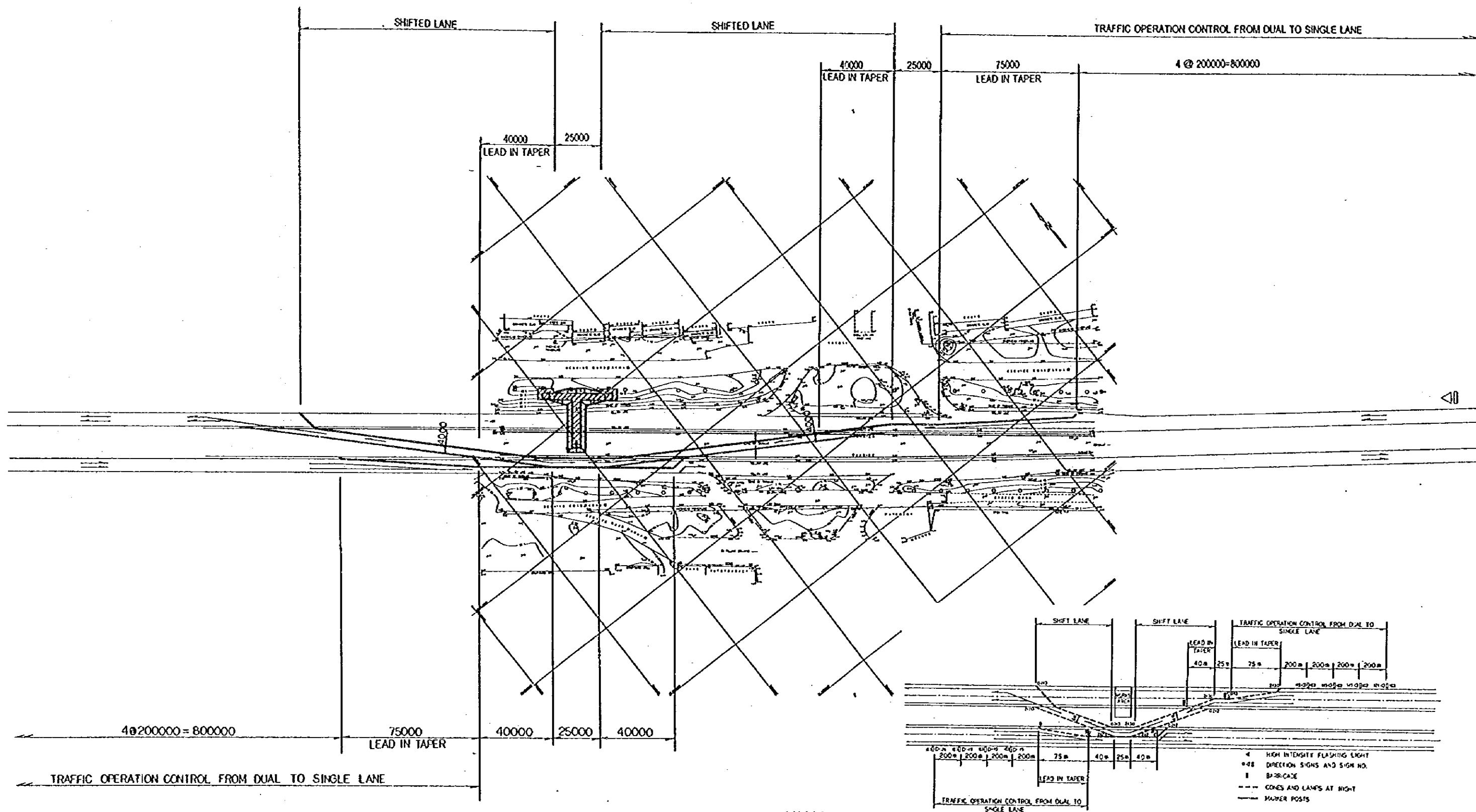
### THIRD CONSTRUCTION STAGE

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

NOTES:

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CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE: SEQUENCE OF ATTHARMAD PU CONSTRUCTION  
DATE: DWGNO. T-1



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CLIENT: MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS  
PROJECT: D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY  
TITLE: DETOUR LAYOUT OF A'ITHARMAD P/U WORKS  
DATE: \_\_\_\_\_ DWGNO. T-2



