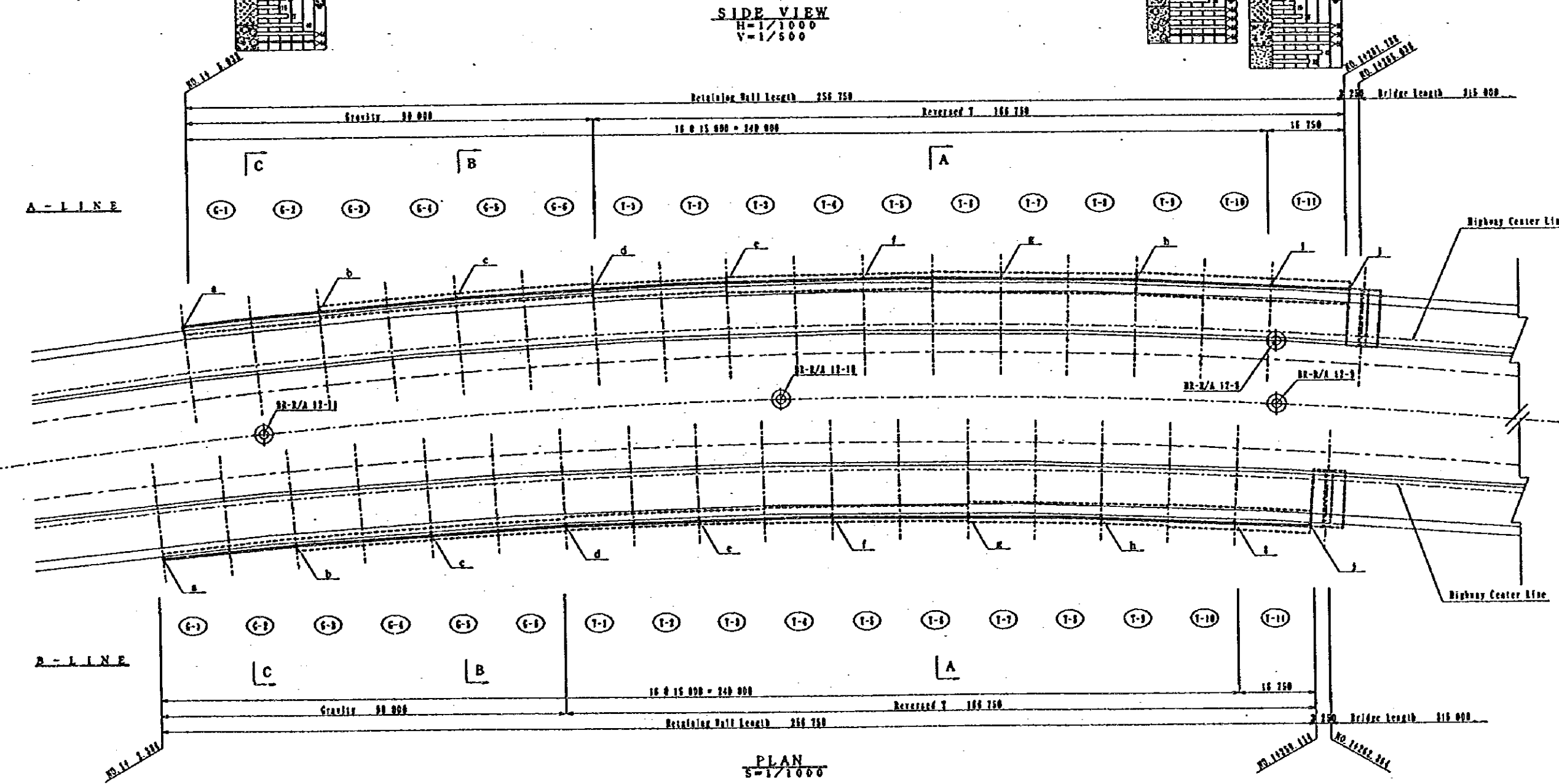
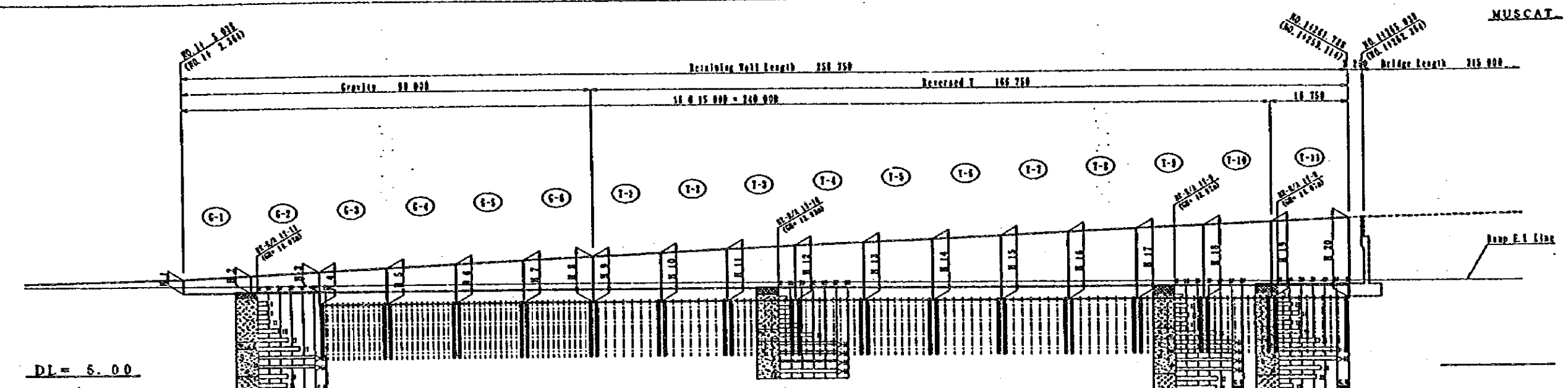


STRUCTURE
-RETAINING WALL

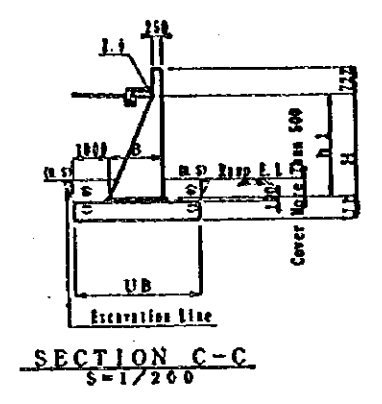
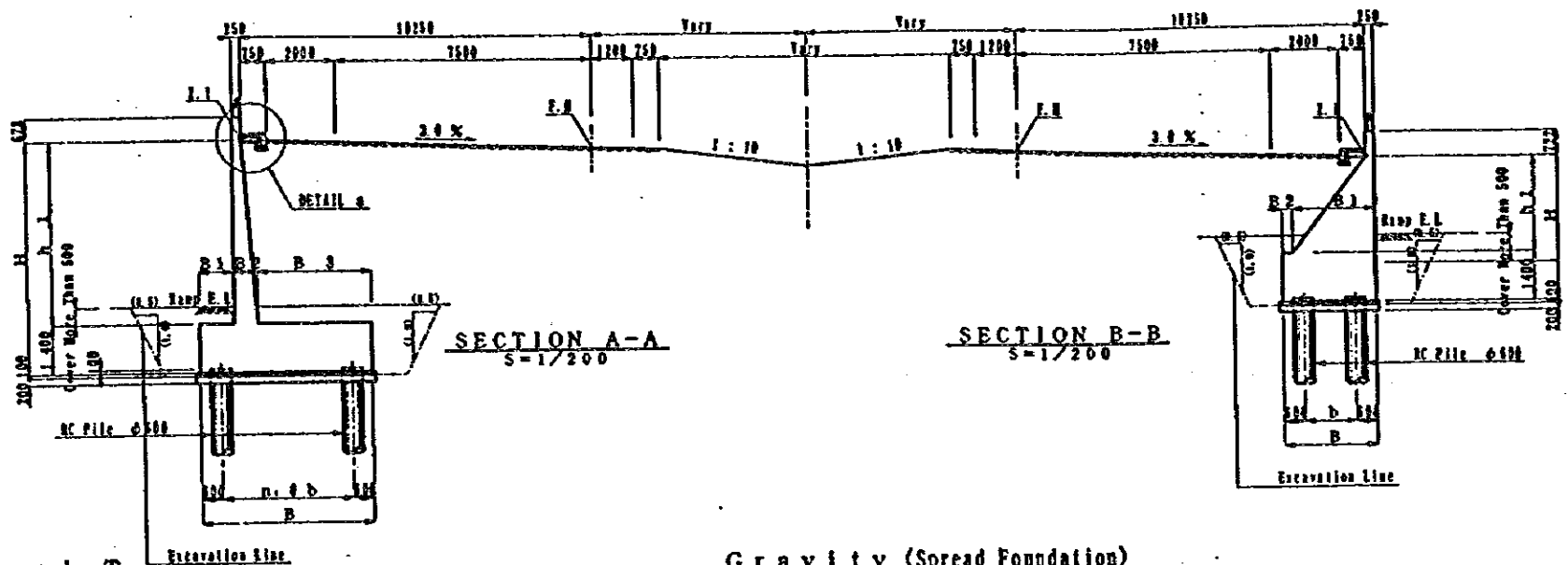
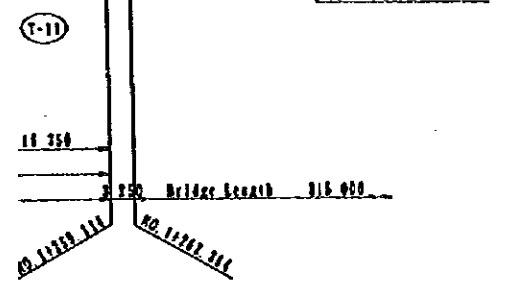
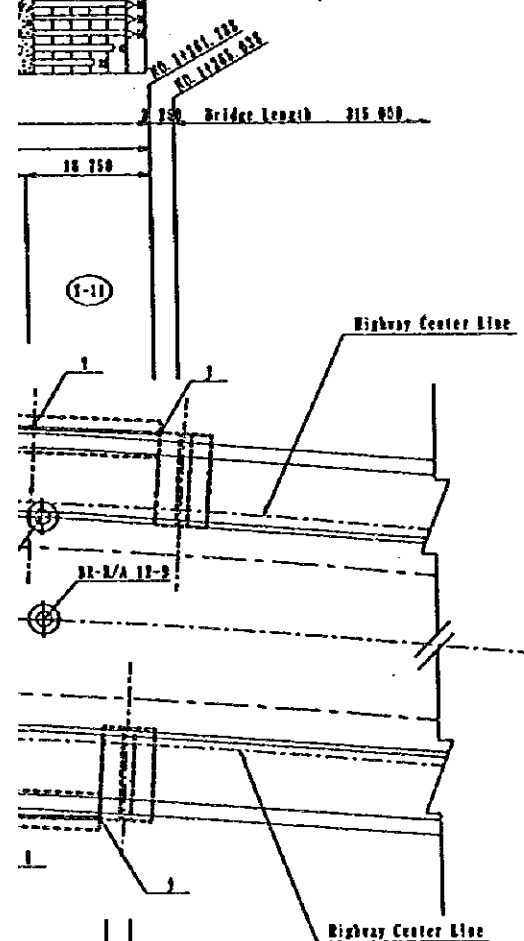
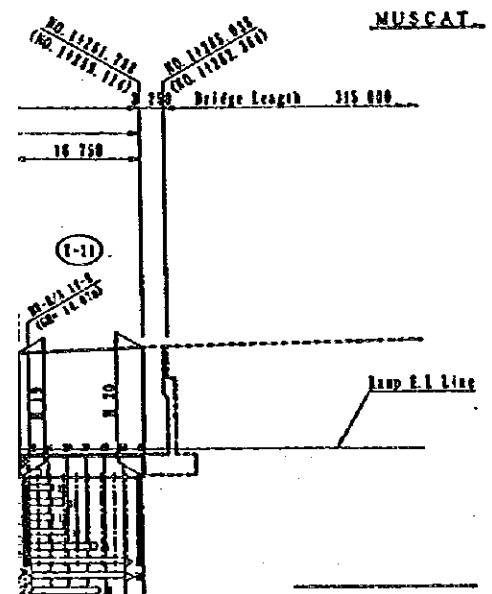


Reve	
MAR	TYPE
A	T-1
A	T-2
I	T-3
I	T-4
L	T-5
I	T-6
I	T-7
N	T-8
E	T-9
E	T-10
	T-11
B	T-1
I	T-2
I	T-3
L	T-4
I	T-5
I	T-6
N	T-7
E	T-8
E	T-9
	T-10
	T-11

List	
Reve	
T 1	
T 3	
T 6	
T 9	
T	
Gr a	

NOTES:

MUSCAT



Reversed T

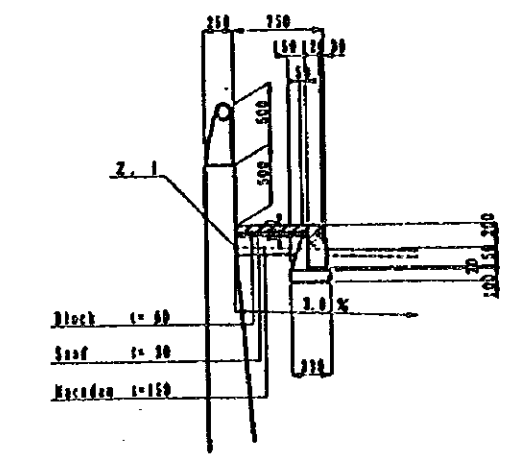
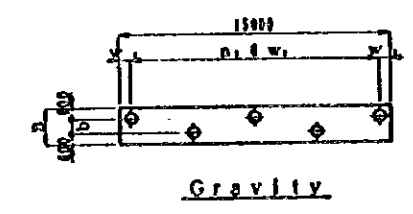
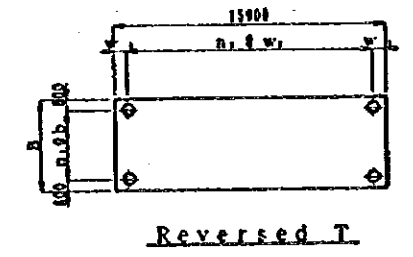
MARK TYPE	H	h ₁	B	B ₁	B ₂	B ₃	
A L I N E	T-1	8-5 017	3 617	3 000	800	525	1 675
	T-2	10-5 438	4 038			587	1 643
	T-3	11-5 859	4 459	3 500	1 000	608	1 892
	T-4	12-6 279	4 879			642	1 858
	T-5	13-6 698	5 298			676	1 824
	T-6	14-7 073	5 673	4 500	1 200	723	2 577
	T-7	15-7 447	6 047			754	2 546
	T-8	16-7 778	6 378			782	2 518
	T-9	17-8 109	6 709	5 000	1 500	824	2 491
	T-10	18-8 395	6 995			848	2 652
	T-11	19-8 681	7 281			873	2 627
B L I N E	T-1	10-4 529	3 129	3 000	800	488	1 712
	T-2	11-4 953	3 553			520	1 680
	T-3	11-5 377	3 977			553	1 647
	T-4	11-6 806	4 406	3 500	1 000	604	1 896
	T-5	11-6 232	4 832			638	1 862
	T-6	11-6 614	5 214			669	1 831
	T-7	11-6 996	5 596	4 500	1 200	716	2 584
	T-8	11-7 332	5 933			744	2 556
	T-9	11-7 670	6 270			773	2 527
	T-10	11-7 961	6 561	5 000	1 500	811	2 689
	T-11	11-8 261	6 861			836	2 664
T-11	11-8 634	7 134			860	2 640	

Gravity (Spread Foundation)

MARK TYPE	H	B	U _h	U _B	
A L I N E	G-1	1-1 873	1 444	600	3 444
	G-1	1-2 098	1 587		3 587
	G-1	1-2 323	1 733		3 733
B L I N E	G-1	1-1 395	1 139	600	3 139
	G-1	1-1 608	1 275		3 275
	G-1	1-1 820	1 410		3 410

Gravity (Pile Foundation)

MARK TYPE	H	h ₁	B	B ₁	B ₂	
A L I N E	G-1	1-4 373	2 323	2 700	1 508	1 192
	G-1	1-4 014	2 614		1 666	1 034
	G-1	1-4 305	2 905		1 824	876
	G-1	1-4 661	3 261		2 016	684
B L I N E	G-1	1-5 017	3 617	2 700	2 209	491
	G-1	1-3 220	1 820	2 700	1 236	1 464
	G-1	1-3 515	2 115		1 396	1 304
	G-1	1-3 810	2 410		1 555	1 148
	G-1	1-4 170	2 770		1 750	950
	G-1	1-4 529	3 129		1 945	755



List Of Foundation

Reversed T	A - LINE					Reversed T	B - LINE				
	n, b	w	n, b, w	n	L (m)		n, b	w	n, b, w	n	L (m)
T 1 ~ T 2	1 @ 1 800	675	7 @ 1 950	16	6 000	T 1 ~ T 2	1 @ 1 800	675	7 @ 1 950	16	6 000
T 3 ~ T 5	1 @ 2 300	750	9 @ 1 500	20		T 4 ~ T 6	1 @ 2 300	750	9 @ 1 500	20	
T 6 ~ T 8	2 @ 1 650	675	7 @ 1 950	24		T 7 ~ T 9	2 @ 1 650	675	7 @ 1 950	24	
T 9 ~ T 10	2 @ 1 900	750	9 @ 1 500	30		T 10	2 @ 1 900	750	9 @ 1 500	30	
T 11	2 @ 1 900	725	9 @ 1 700	30		T 11	2 @ 1 900	725	9 @ 1 700	30	
Gravity	1 @ 3 500	600	12 @ 1 150	13	6 000	Gravity	1 @ 1 500	600	12 @ 1 150	13	6 000

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
 PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
 JICA STUDY TEAM
 PACIFIC CONSULTANTS INTERNATIONAL
 FUKUYAMA CONSULTANTS INTERNATIONAL
 TITLE : R/A-12, SOHAR GENERAL VIEW FOR WALL (1)-1
 DATE :
 DWG NO. W-1

Point	a	b	c	d	e	f	g	h	i	j	
A I L I N E	N	+2692267.71918	+2692262.81093	+2692257.27426	+2692251.11169	+2692244.32599	+2692236.92024	+2692228.89780	+2692220.26228	+2692211.01761	+2692204.51812
	E	+472214.71436	+472244.30955	+472273.79364	+472303.15328	+472332.37520	+472361.44616	+472390.35302	+472419.08269	+472447.62217	+472466.53645
	Z	15.835	16.285	16.867	17.579	18.421	19.260	20.009	20.671	21.243	21.576
B I L I N E	N	+2692217.35643	+2692211.33421	+2692204.75851	+2692197.63165	+2692189.95619	+2692181.73485	+2692172.97056	+2692163.66644	+2692153.82581	+2692146.96905
	E	+472190.76346	+472220.15234	+472249.42234	+472278.56306	+472307.56410	+472336.41515	+472365.10592	+472393.62621	+472421.96585	+472440.75360
	Z	15.348	15.773	16.363	17.082	17.930	18.785	19.549	20.223	20.804	21.142

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

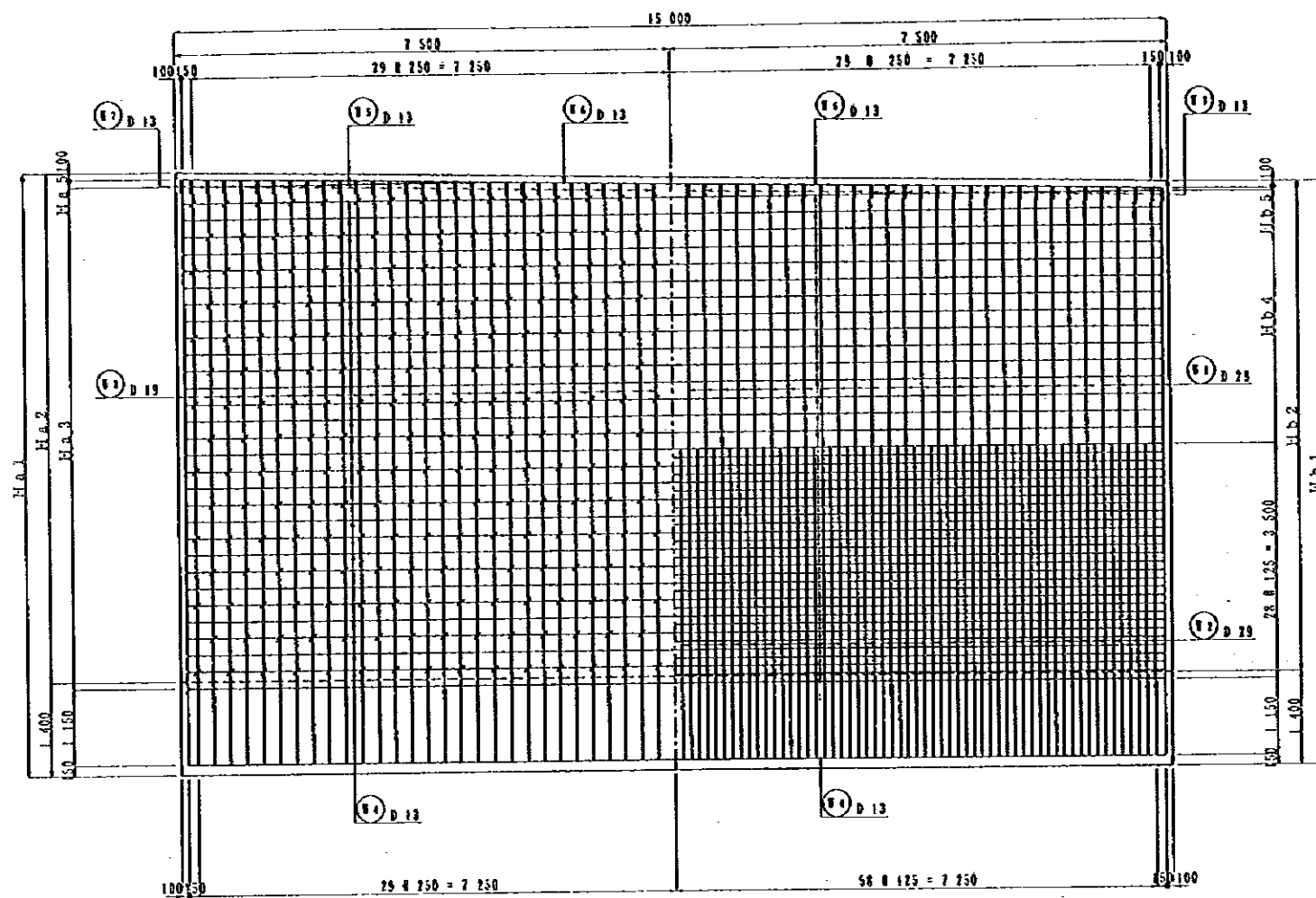
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

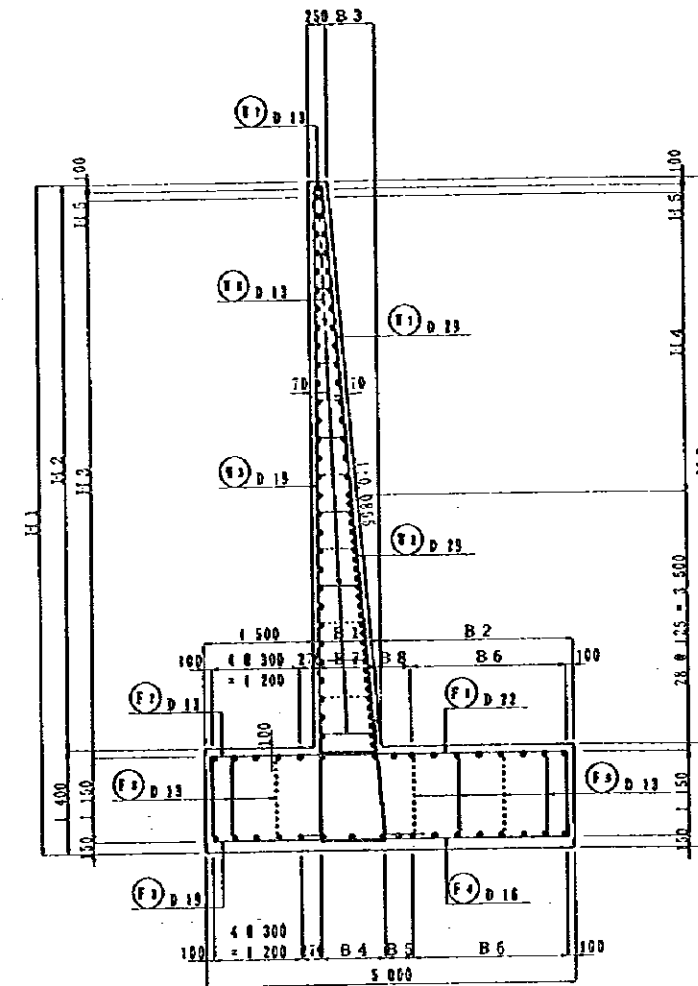
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : R/A-12, SOHAR GENERAL VIEW FOR WALL (1)-2

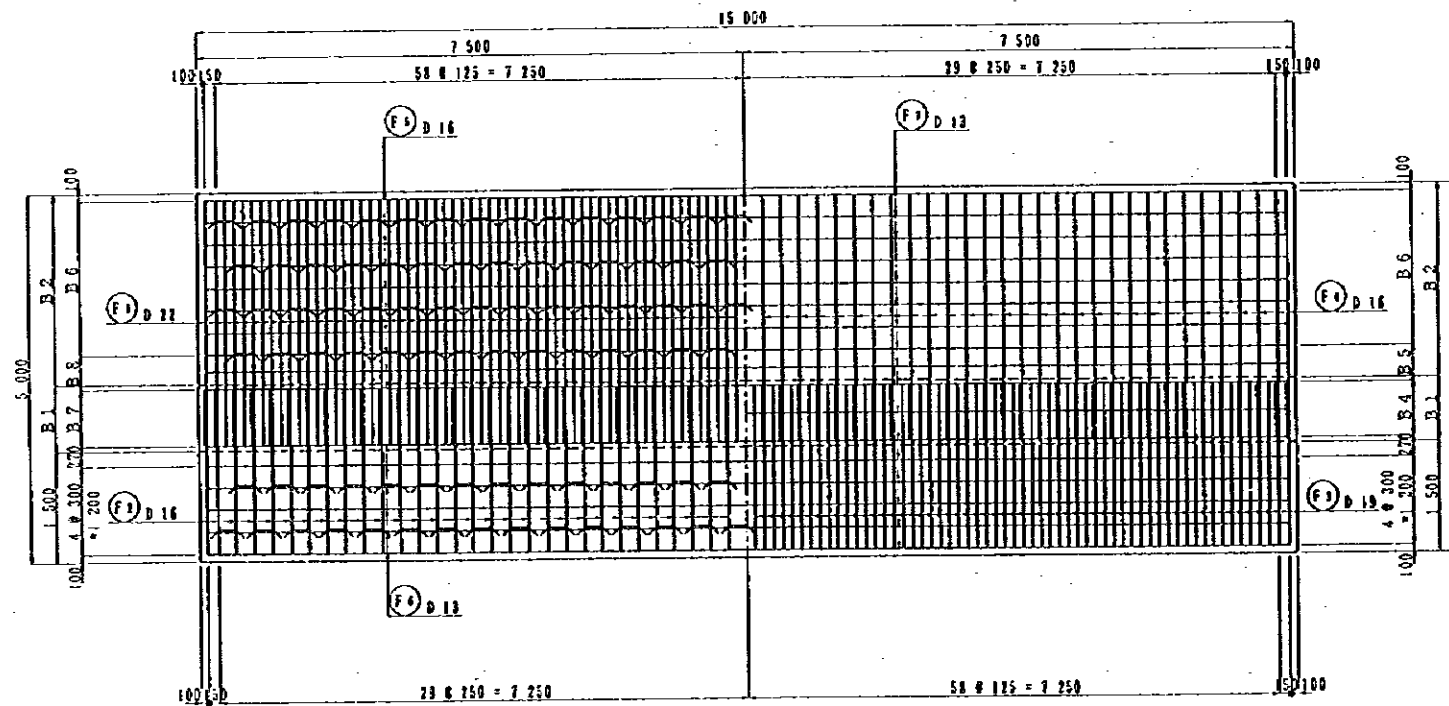
DATE : _____ DWG NO. W-2



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

NOTES:

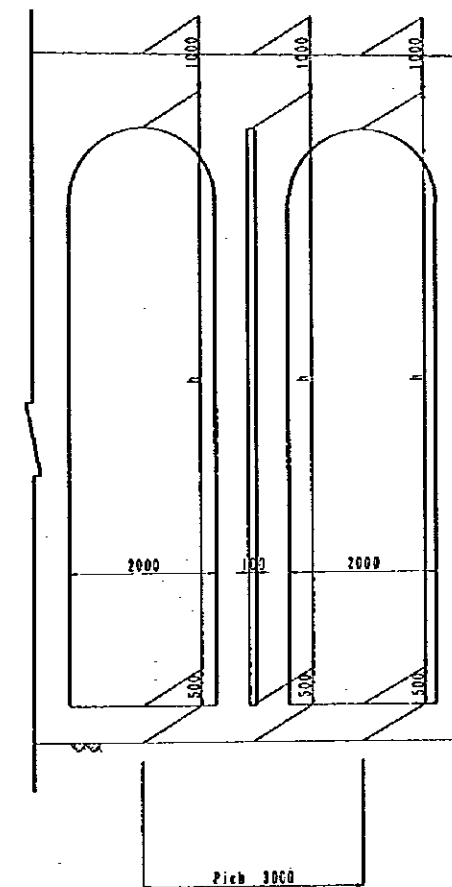
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FEKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (1)
DATE :
DTC NO. W-3

A L I N E	T-11		T-10		T-9	
	a - a	b - b	a - a	b - b	a - a	b - b
	Ha1	9 014	Hb1 8 691	Ha1 8 691	Hb1 8 395	Ha1 8 395
Ha2	7 614	Hb2 7 291	Ha2 7 291	Hb2 6 995	Ha2 6 995	Hb2 6 709
Ha3	30@250 = 7 500	Hb3 29@250 = 7 250	Ha3 28@250 = 7 250	Hb3 27@250 = 6 750	Ha3 27@250 = 6 750	Hb3 26@250 = 6 500
Ha4	16@250 = 4 000	Hb4 15@250 = 3 750	Ha4 14@250 = 3 750	Hb4 13@250 = 3 250	Ha4 13@250 = 3 250	Hb4 12@250 = 3 000
Ha5	114	Hb5 41	Ha5 2@145.5 = 291	Hb5 245	Ha5 245	Hb5 209
Ba1	901	Bb1 874	Ba1 874	Bb1 848	Ba1 848	Bb1 824
Ba2	2 599	Bb2 2 626	Ba2 2 626	Bb2 2 652	Ba2 2 652	Bb2 2 676
Ba3	651	Bb3 624	Ba3 624	Bb3 598	Ba3 598	Bb3 574
Ba4	2@434 = 868	Bb4 2@420 = 840	Ba4 2@420 = 840	Bb4 2@407.5 = 815	Ba4 2@407.5 = 815	Bb4 2@395 = 790
Ba5	2@181 = 362	Bb5 2@195 = 390	Ba5 90	Bb5 115	Ba5 115	Bb5 140
Ba6	7@300 = 2 100	Bb6 7@300 = 2 100	Ba6 8@300 = 2 400	Bb6 8@300 = 2 400	Ba6 8@300 = 2 400	Bb6 8@300 = 2 400
Ba7	769	Bb7 742	Ba7 742	Bb7 716	Ba7 716	Bb7 692
Ba8	2@230.5 = 461	Bb8 2@244 = 488	Ba8 188	Bb8 214	Ba8 214	Bb8 238

B L I N E	T-11		T-10		T-9	
	a - a	b - b	a - a	b - b	a - a	b - b
	Ha1	8 589	Hb1 8 251	Ha1 8 251	Hb1 7 961	Ha1
Ha2	7 189	Hb2 6 851	Ha2 6 851	Hb2 6 561	Ha2	Hb2
Ha3	28@250 = 7 000	Hb3 27@250 = 6 750	Ha3 27@250 = 6 750	Hb3 26@250 = 6 500	Ha3	Hb3
Ha4	14@250 = 3 500	Hb4 13@250 = 3 250	Ha4 13@250 = 3 250	Hb4 12@250 = 3 000	Ha4	Hb4
Ha5	189	Hb5 101	Ha5 101	Hb5 61	Ha5	Hb5
Ba1	865	Bb1 836	Ba1 836	Bb1 811	Ba1	Bb1
Ba2	2 635	Bb2 2 664	Ba2 2 664	Bb2 2 689	Ba2	Bb2
Ba3	615	Bb3 586	Ba3 586	Bb3 561	Ba3	Bb3
Ba4	2@415.5 = 831	Bb4 2@401 = 802	Ba4 2@401 = 802	Bb4 2@388.5 = 777	Ba4	Bb4
Ba5	2@199.5 = 399	Bb5 2@214 = 428	Ba5 128	Bb5 153	Ba5	Bb5
Ba6	7@300 = 2 100	Bb6 7@300 = 2 100	Ba6 8@300 = 2 400	Bb6 8@300 = 2 400	Ba6	Bb6
Ba7	733	Bb7 704	Ba7 704	Bb7 679	Ba7	Bb7
Ba8	2@248.5 = 497	Bb8 2@263 = 526	Ba8 226	Bb8 251	Ba8	Bb8



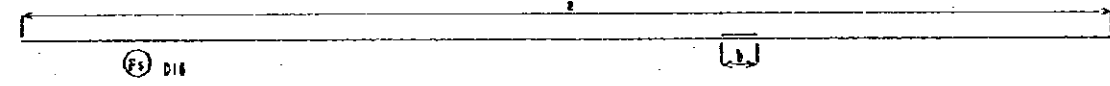
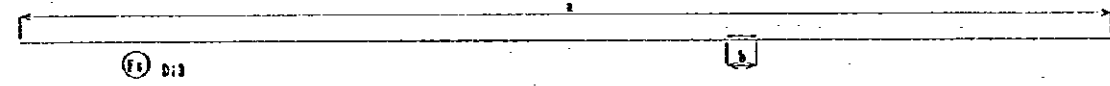
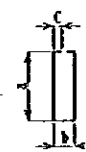
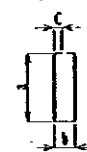
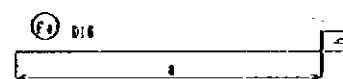
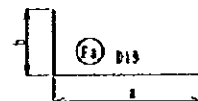
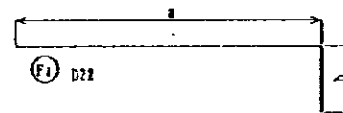
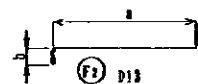
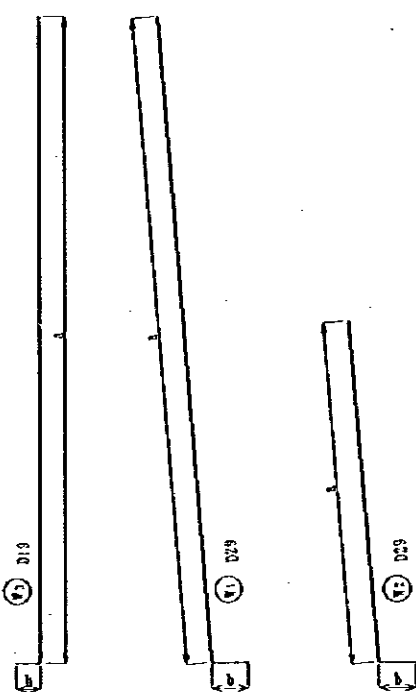
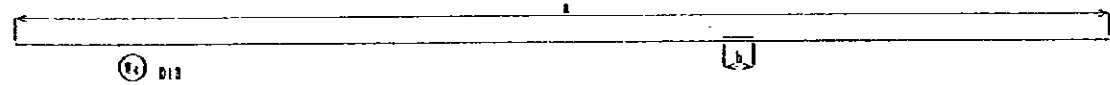
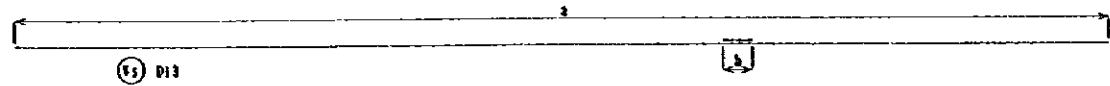
Slit Shape in Front of Wall
(Thickness t=30 mm)

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (2)
DATE : DTG NO. W-4



REIN NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 9					
W 1	D 23	8 420	8 175~7 888	435	---
2	"	5 110	4 667	435	---
3	D 19	8 290	8 145~7 859	285	---
4	D 13	15 190	14 800	390	---
5	"	13 240	12 850	390	---
6	"	15 200	14 803	390	---
7	"	500	110	195	---
8	"	700	737~719	111	---
F 1	D 22	4 430	3 274	1 150	---
2	D 13	2 390	2 186	195	---
3	D 19	3 190	2 040	1 150	---
4	D 16	3 570	3 330	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 870	1 173	282	111
9	"	2 880	1 182	285	111
T 10					
W 1	D 23	8 760	8 472~8 175	435	---
2	"	5 110	4 667	435	---
3	D 19	8 580	8 441~8 145	285	---
4	D 13	15 190	14 800	390	---
5	"	11 260	7 378~14 747	390	---
6	"	15 200	14 803	390	---
7	"	500	110	195	---
8	"	710	758~702	111	---
F 1	D 22	4 400	3 248	1 150	---
2	D 13	2 410	2 212	195	---
3	D 19	3 190	2 040	1 150	---
4	D 16	3 570	3 330	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 870	1 173	282	111
9	"	2 880	1 182	285	111
T 11					
W 1	D 23	9 070	8 786~8 472	435	---
2	"	5 110	4 667	435	---
3	D 19	8 890	8 744~8 441	285	---
4	D 13	15 190	14 800	390	---
5	"	5 300	5 294	---	---
6	"	15 200	14 803	390	---
7	"	500	110	195	---
8	"	730	785~729	111	---
F 1	D 22	4 380	3 221	1 150	---
2	D 13	2 440	2 239	195	---
3	D 19	3 190	2 040	1 150	---
4	D 16	3 570	3 330	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 870	1 173	282	111
9	"	2 880	1 182	285	111

REIN NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 10					
W 1	D 23	8 320	8 030~7 739	435	---
2	"	5 110	4 667	435	---
3	D 19	8 150	8 001~7 711	285	---
4	D 13	15 190	14 800	390	---
5	"	5 230	5 224	---	---
6	"	15 200	14 803	390	---
7	"	500	110	195	---
8	"	690	720~707	111	---
F 1	D 22	4 440	3 286	1 150	---
2	D 13	2 370	2 174	195	---
3	D 19	3 190	2 040	1 150	---
4	D 16	3 570	3 330	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 870	1 173	282	111
9	"	2 880	1 182	285	111
T 11					
W 1	D 23	8 640	8 369~8 030	435	---
2	"	5 110	4 667	435	---
3	D 19	8 450	8 339~8 001	285	---
4	D 13	15 190	14 800	390	---
5	"	8 390	8 388	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	700	749~733	111	---
F 1	D 22	4 410	3 257	1 150	---
2	D 13	2 400	2 203	195	---
3	D 19	3 190	2 040	1 150	---
4	D 16	3 570	3 330	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 870	1 173	282	111
9	"	2 880	1 182	285	111

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

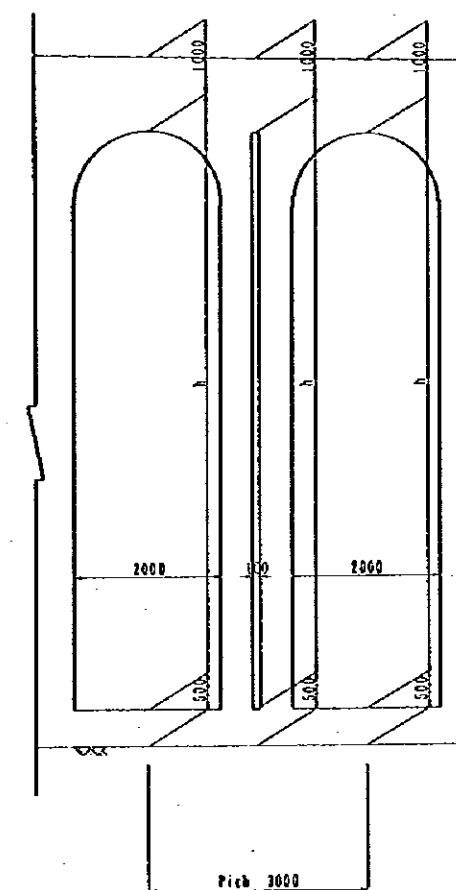
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (3)

DATE : DEC NO. W-5

A I L I N E	T-2				T-1				T-1			
	a - a		b - b		a - a		b - b		a - a		b - b	
	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb
	Ha1	5 859	Hb1	5 438	Ha1	5 438	Hb1	5 017	Ha1		Hb1	
	Ha2	4 459	Hb2	4 038	Ha2	4 038	Hb2	3 617	Ha2		Hb2	
	Ha3	17@250 = 4 250	Hb3	16@250 = 4 000	Ha3	15@250 = 3 750	Hb3	14@250 = 3 500	Ha3		Hb3	
	Ha4	9@250 = 2 250	Hb4	8@250 = 2 000	Ha4	7@250 = 1 750	Hb4	6@250 = 1 500	Ha4		Hb4	
	Ha5	209	Hb5	38	Ha5	2@144 = 288	Hb5	117	Ha5		Hb5	
	Ba1	589	Bb1	557	Ba1	557	Bb1	525	Ba1		Bb1	
	Ba2	1 611	Bb2	1 643	Ba2	1 643	Bb2	1 675	Ba2		Bb2	
	Ba3	339	Bb3	307	Ba3	307	Bb3	275	Ba3		Bb3	
	Ba4	2@272.5 = 545	Bb4	2@256.5 = 513	Ba4	2@256.5 = 513	Bb4	2@240.5 = 481	Ba4		Bb4	
	Ba5	2@142.5 = 285	Bb5	2@158.5 = 317	Ba5	2@158.5 = 317	Bb5	2@174.5 = 349	Ba5		Bb5	
	Ba6	4@300 = 1 200	Bb6	4@300 = 1 200	Ba6	4@300 = 1 200	Bb6	4@300 = 1 200	Ba6		Bb6	
	Ba7	457	Bb7	425	Ba7	425	Bb7	393	Ba7		Bb7	
	Ba8	2@186.5 = 373	Bb8	2@202.5 = 405	Ba8	2@202.5 = 405	Bb8	2@218.5 = 437	Ba8		Bb8	
B I L I N E	T-3				T-2				T-1			
	a - a		b - b		a - a		b - b		a - a		b - b	
	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb
	Ha1	5 805	Hb1	5 377	Ha1	5 377	Hb1	4 953	Ha1	4 953	Hb1	4 529
	Ha2	4 405	Hb2	3 977	Ha2	3 977	Hb2	3 553	Ha2	3 553	Hb2	3 129
	Ha3	17@250 = 4 250	Hb3	15@250 = 3 750	Ha3	15@250 = 3 750	Hb3	14@250 = 3 500	Ha3	13@250 = 3 250	Hb3	12@250 = 3 000
	Ha4	9@250 = 2 250	Hb4	7@250 = 1 750	Ha4	7@250 = 1 750	Hb4	6@250 = 1 500	Ha4	5@250 = 1 250	Hb4	4@250 = 1 000
	Ha5	155	Hb5	227	Ha5	227	Hb5	53	Ha5	303	Hb5	129
	Ba1	585	Bb1	553	Ba1	553	Bb1	520	Ba1	520	Bb1	488
	Ba2	1 615	Bb2	1 647	Ba2	1 647	Bb2	1 680	Ba2	1 680	Bb2	1 712
	Ba3	335	Bb3	303	Ba3	303	Bb3	270	Ba3	270	Bb3	238
	Ba4	2@270.5 = 541	Bb4	2@254 = 508	Ba4	2@254 = 508	Bb4	2@238 = 476	Ba4	2@238 = 476	Bb4	2@222 = 444
	Ba5	2@144.5 = 289	Bb5	2@161 = 322	Ba5	2@161 = 322	Bb5	2@177 = 354	Ba5	2@177 = 354	Bb5	2@193 = 386
	Ba6	4@300 = 1 200	Bb6	4@300 = 1 200	Ba6	4@300 = 1 200	Bb6	4@300 = 1 200	Ba6	4@300 = 1 200	Bb6	4@300 = 1 200
	Ba7	453	Bb7	421	Ba7	421	Bb7	388	Ba7	388	Bb7	356
	Ba8	2@188.5 = 377	Bb8	2@204.5 = 409	Ba8	2@204.5 = 409	Bb8	2@221 = 442	Ba8	2@221 = 442	Bb8	2@237 = 474



Slit Shape in Front of Wall
(Thickness t=30 mm)

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

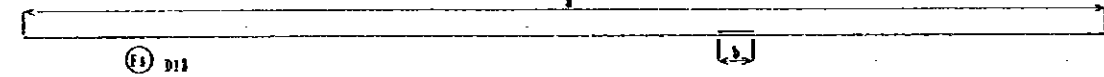
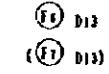
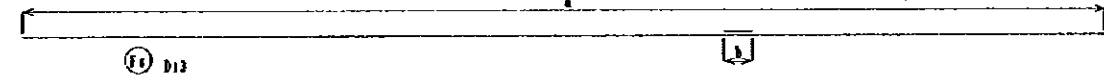
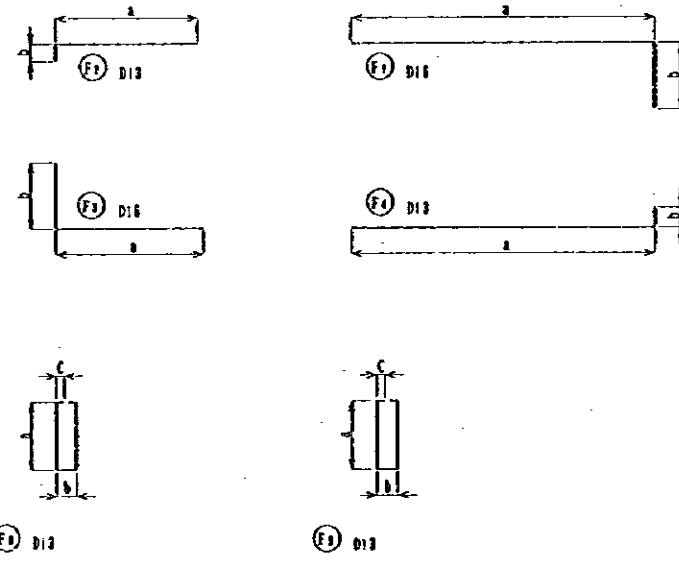
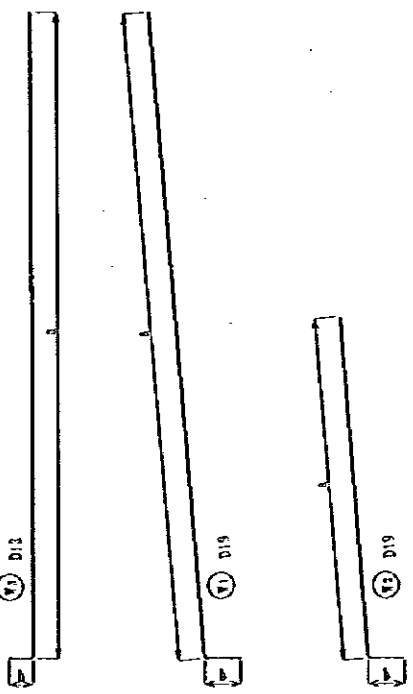
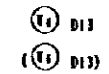
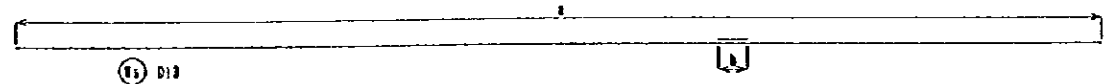
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUJUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (5)

DATE : DTC NO. W-7



REIN NO.	φ (mm)	LENGTH (cm)	a	b	c
T 1					
1	D 19	5 280	5 203~4 781	285	---
2	"	3 450	3 159	285	---
3	D 13	5 190	5 188~4 767	195	---
4	"	15 190	14 800	390	---
5	"	7 700	5 131~10 281	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	550	435~287	111	---
F 1	D 16	3 240	2 085	1 150	---
2	D 13	1 390	1 195	195	---
3	D 16	2 400	1 250	1 150	---
4	D 13	2 230	2 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

REIN NO.	φ (mm)	LENGTH (cm)	a	b	c
T 2					
1	D 19	5 220	5 142~4 717	285	---
2	"	3 450	3 159	285	---
3	D 13	5 110	5 127~4 783	195	---
4	"	15 190	14 800	390	---
5	"	7 450	7 447	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	560	467~281	111	---
F 1	D 16	3 210	2 053	1 150	---
2	D 13	1 430	1 227	195	---
3	D 16	2 400	1 250	1 150	---
4	D 13	2 230	2 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

REIN NO.	φ (mm)	LENGTH (cm)	a	b	c
T 1					
1	D 19	4 790	4 717~4 291	285	---
2	"	3 450	3 159	285	---
3	D 13	4 690	4 703~4 279	195	---
4	"	15 190	14 800	390	---
5	"	8 040	5 360~10 713	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	530	398~208	111	---
F 1	D 16	3 280	2 172	1 150	---
2	D 13	1 360	1 158	195	---
3	D 16	2 400	1 250	1 150	---
4	D 13	2 230	2 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

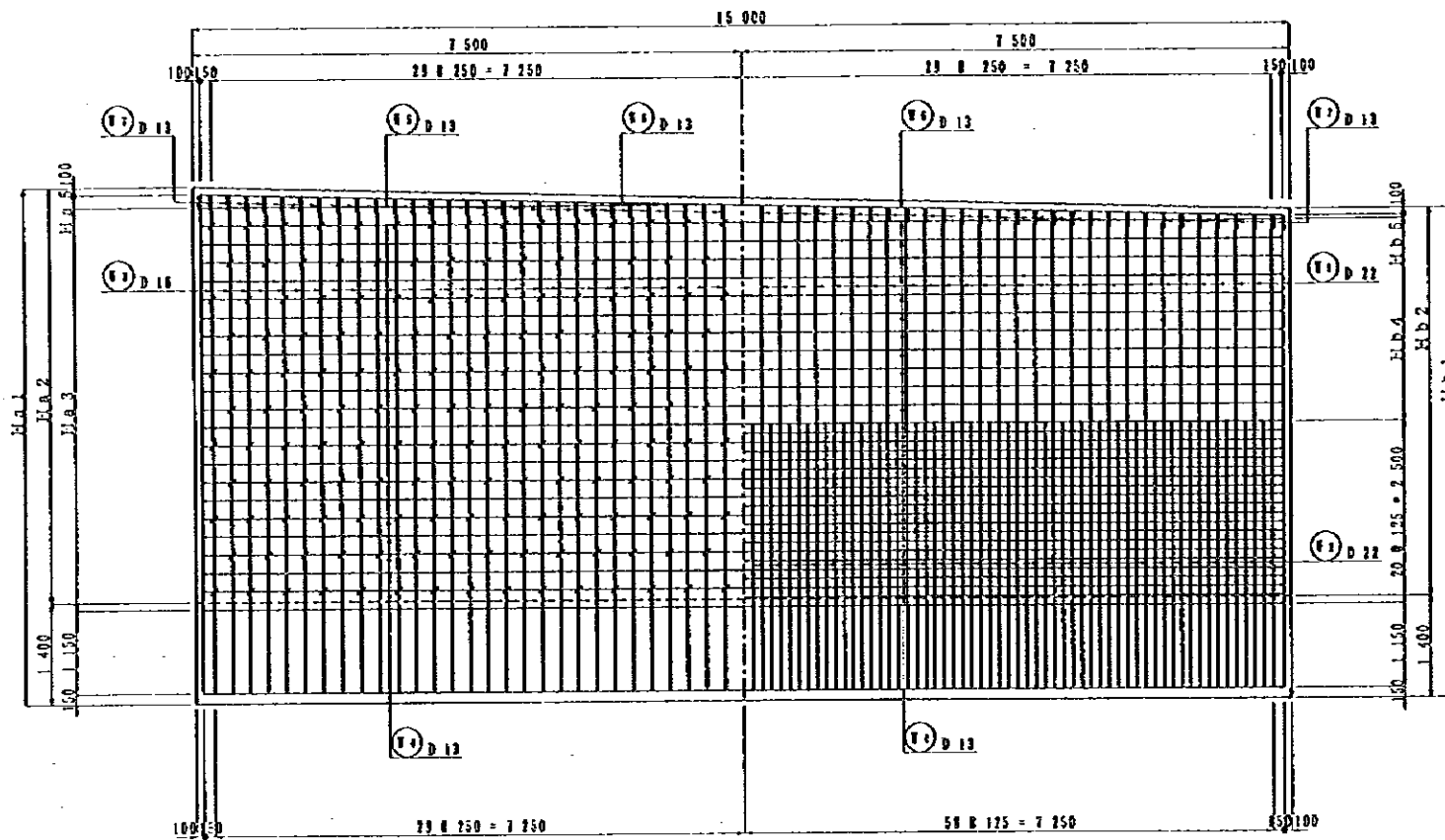
REIN NO.	φ (mm)	LENGTH (cm)	a	b	c
T 2					
1	D 19	5 220	5 142~4 717	285	---
2	"	3 450	3 159	285	---
3	D 13	5 110	5 127~4 783	195	---
4	"	15 190	14 800	390	---
5	"	8 040	8 031	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	540	431~287	111	---
F 1	D 16	3 240	2 089	1 150	---
2	D 13	1 390	1 191	195	---
3	D 16	2 400	1 250	1 150	---
4	D 13	2 230	2 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

REIN NO.	φ (mm)	LENGTH (cm)	a	b	c
T 3					
1	D 19	5 650	5 571~5 142	285	---
2	"	3 450	3 159	285	---
3	D 13	5 540	5 555~5 127	195	---
4	"	15 190	14 800	390	---
5	"	10 010	5 432~14 194	390	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	560	463~196	111	---
F 1	D 16	3 210	2 057	1 150	---
2	D 13	1 420	1 223	195	---
3	D 16	2 400	1 250	1 150	---
4	D 13	2 230	2 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

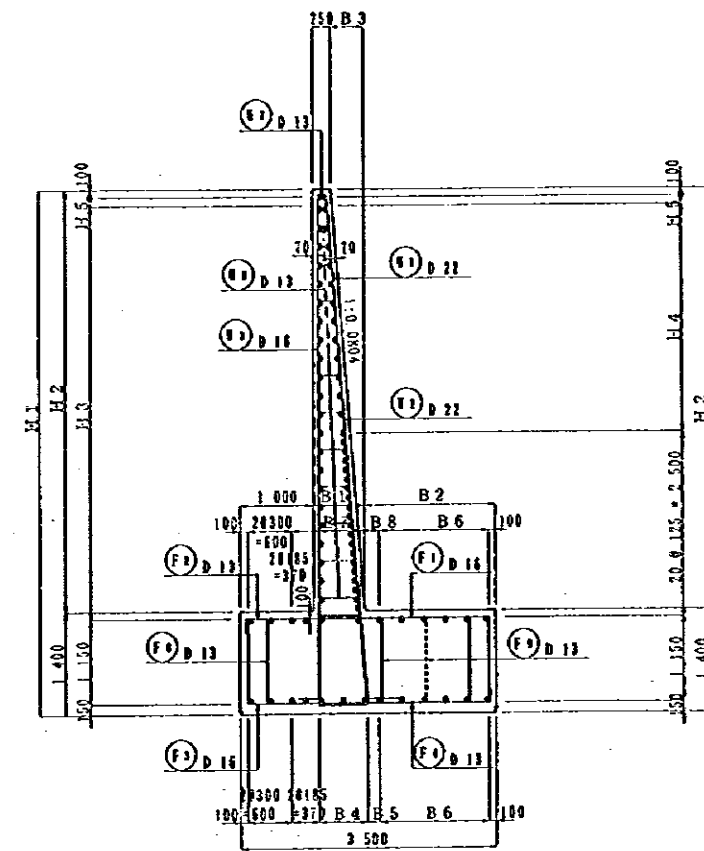
NOTES:

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 FUKUYAMA CONSULTANTS INTERNATIONAL

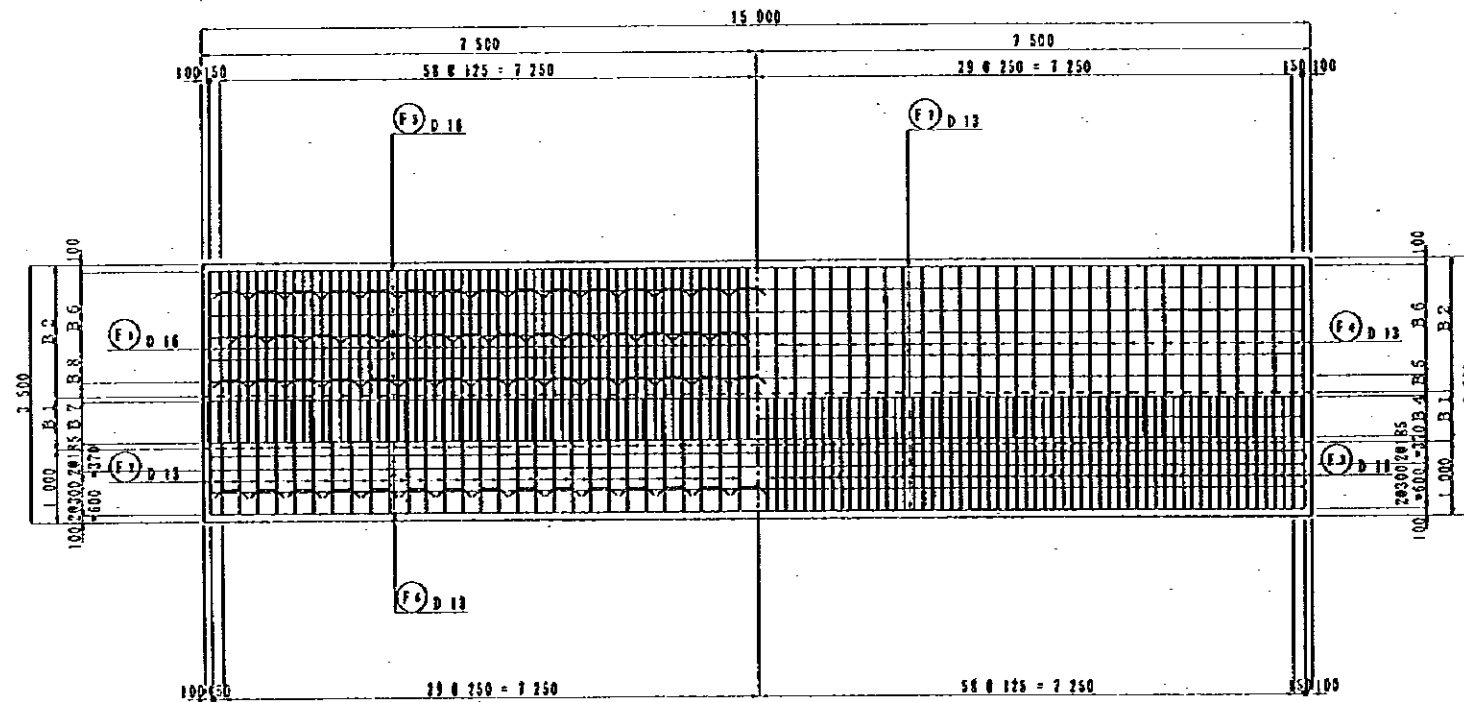
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
 PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
 TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (6)
 DATE : _____
 DWG NO. W-8



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

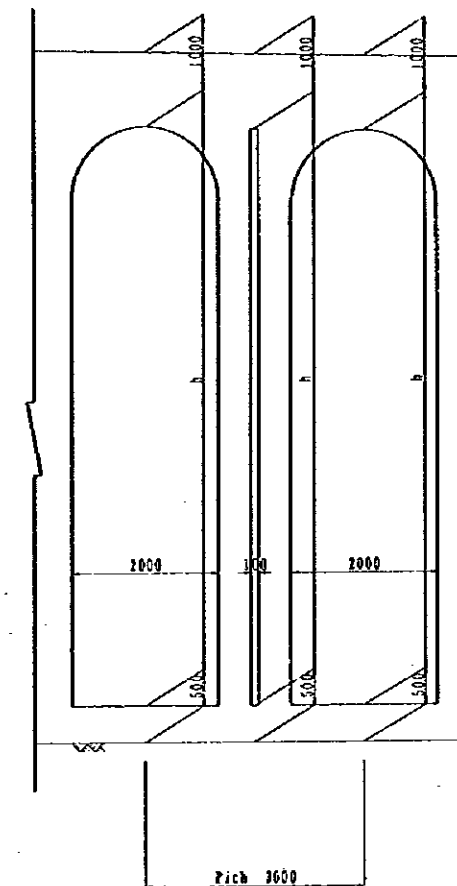
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
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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 : R/A-12, SONAR RE-BAR ARRANGEMENT (7)
DATE :
DWG NO. W-9

A I L I N E	T-5		T-4		T-3	
	a - a	b - b	a - a	b - b	a - a	b - b
	Ha1	7 073	Hb1 6 698	Ha1 6 698	Hb1 6 729	Ha1 6 729
Ha2	5 673	Hb2 5 298	Ha2 5 298	Hb2 4 879	Ha2 4 879	Hb2 4 459
Ha3	22@250 = 5 500	Hb3 21@250 = 5 250	Ha3 20@250 = 5 000	Hb3 19@250 = 4 750	Ha3 19@250 = 4 750	Hb3 17@250 = 4 250
Ha4	12@250 = 3 000	Hb4 11@250 = 2 750	Ha4 10@250 = 2 500	Hb4 9@250 = 2 250	Ha4 9@250 = 2 250	Hb4 7@250 = 1 750
Ha5	173	Hb5 48	Ha5 2@149 = 298	Hb5 129	Ha5 129	Hb5 209
Ba1	706	Bb1 676	Ba1 676	Bb1 642	Ba1 642	Bb1 608
Ba2	1 794	Bb2 1 824	Ba2 1 824	Bb2 1 858	Ba2 1 858	Bb2 1 892
Ba3	456	Bb3 426	Ba3 426	Bb3 392	Ba3 392	Bb3 358
Ba4	2@333 = 666	Bb4 2@318 = 636	Ba4 2@318 = 636	Bb4 2@301 = 602	Ba4 2@301 = 602	Bb4 2@284.5 = 569
Ba5	164	Bb5 194	Ba5 194	Bb5 228	Ba5 228	Bb5 231
Ba6	5@300 = 1 500	Bb6 5@300 = 1 500	Ba6 5@300 = 1 500	Bb6 5@300 = 1 500	Ba6 5@300 = 1 500	Bb6 5@300 = 1 500
Ba7	574	Bb7 544	Ba7 544	Bb7 510	Ba7 510	Bb7 476
Ba8	256	Bb8 286	Ba8 2@143 = 286	Bb8 2@160 = 320	Ba8 2@160 = 320	Bb8 2@177 = 354
B I L I N E	T-6		T-5		T-4	
	a - a	b - b	a - a	b - b	a - a	b - b
	Ha1	6 996	Hb1 6 614	Ha1 6 614	Hb1 6 232	Ha1 6 232
Ha2	5 596	Hb2 5 214	Ha2 5 214	Hb2 4 832	Ha2 4 832	Hb2 4 405
Ha3	21@250 = 5 250	Hb3 20@250 = 5 000	Ha3 20@250 = 5 000	Hb3 19@250 = 4 750	Ha3 18@250 = 4 500	Hb3 17@250 = 4 250
Ha4	11@250 = 2 750	Hb4 10@250 = 2 500	Ha4 10@250 = 2 500	Hb4 9@250 = 2 250	Ha4 8@250 = 2 000	Hb4 7@250 = 1 750
Ha5	2@173 = 346	Hb5 214	Ha5 214	Hb5 82	Ha5 2@166 = 332	Hb5 155
Ba1	700	Bb1 669	Ba1 669	Bb1 638	Ba1 638	Bb1 604
Ba2	1 800	Bb2 1 831	Ba2 1 831	Bb2 1 862	Ba2 1 862	Bb2 1 896
Ba3	450	Bb3 419	Ba3 419	Bb3 388	Ba3 388	Bb3 354
Ba4	2@330 = 660	Bb4 2@314.5 = 629	Ba4 2@314.5 = 629	Bb4 2@299.5 = 599	Ba4 2@299.5 = 599	Bb4 2@282 = 564
Ba5	170	Bb5 201	Ba5 201	Bb5 231	Ba5 231	Bb5 266
Ba6	5@300 = 1 500	Bb6 5@300 = 1 500	Ba6 5@300 = 1 500	Bb6 5@300 = 1 500	Ba6 5@300 = 1 500	Bb6 5@300 = 1 500
Ba7	568	Bb7 537	Ba7 537	Bb7 506	Ba7 506	Bb7 472
Ba8	262	Bb8 293	Ba8 2@146.5 = 293	Bb8 2@162 = 324	Ba8 2@162 = 324	Bb8 2@179 = 358



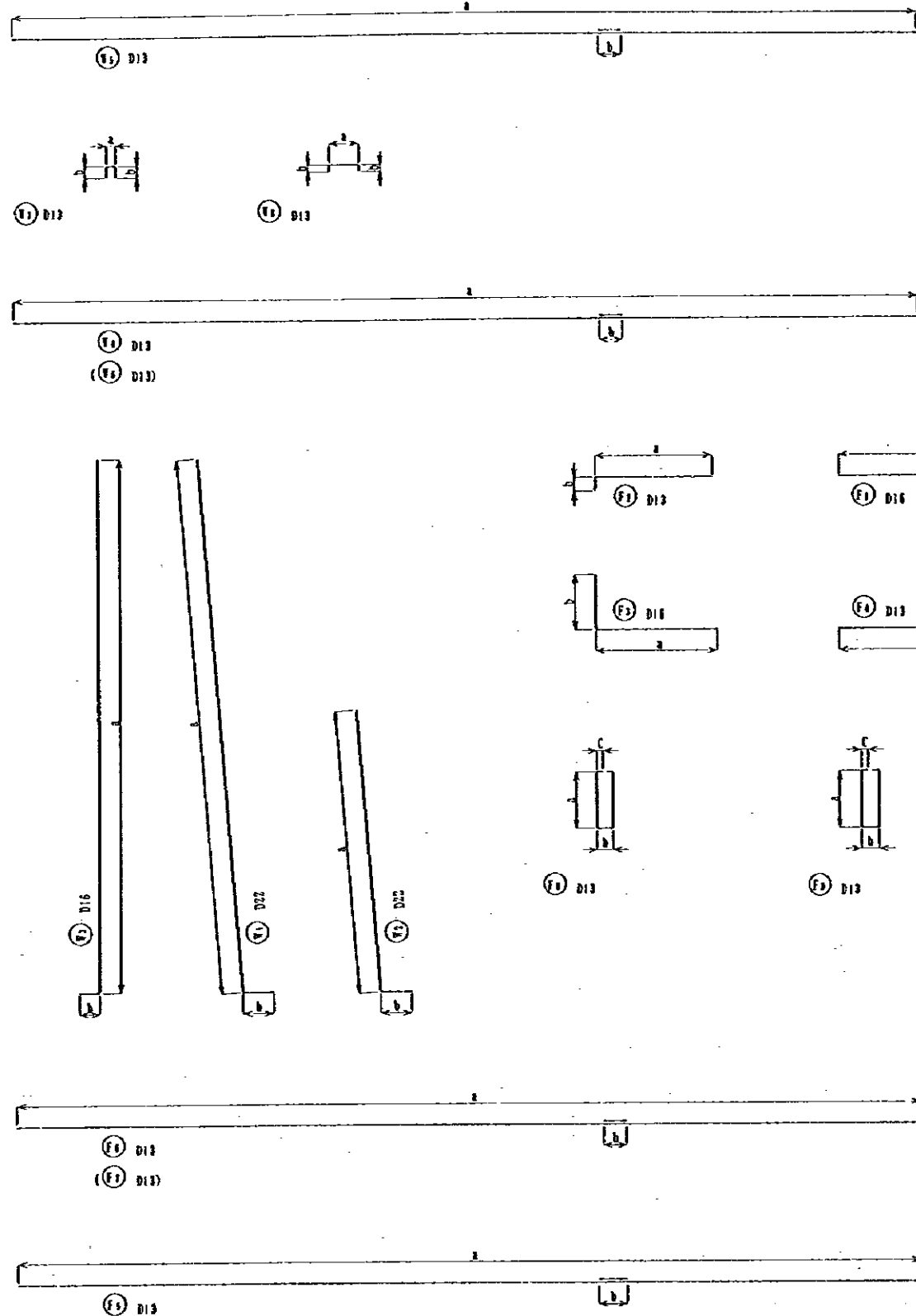
Slit Shape in Front of Wall
(Thickness 1=30 mm)

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

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FUJIKAWA CONSULTANTS INTERNATIONAL

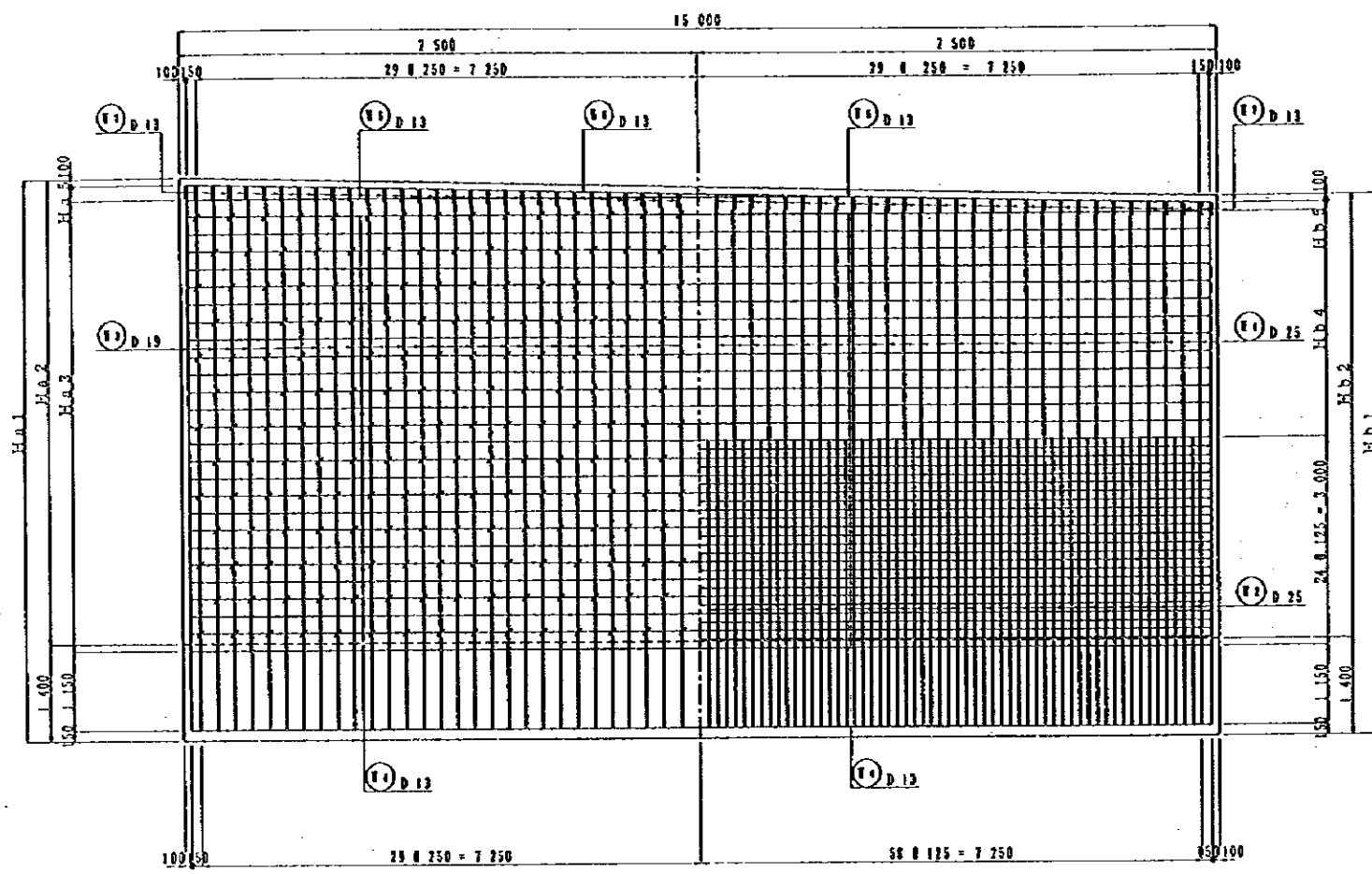
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (8)
DATE : DFG NO. W-10



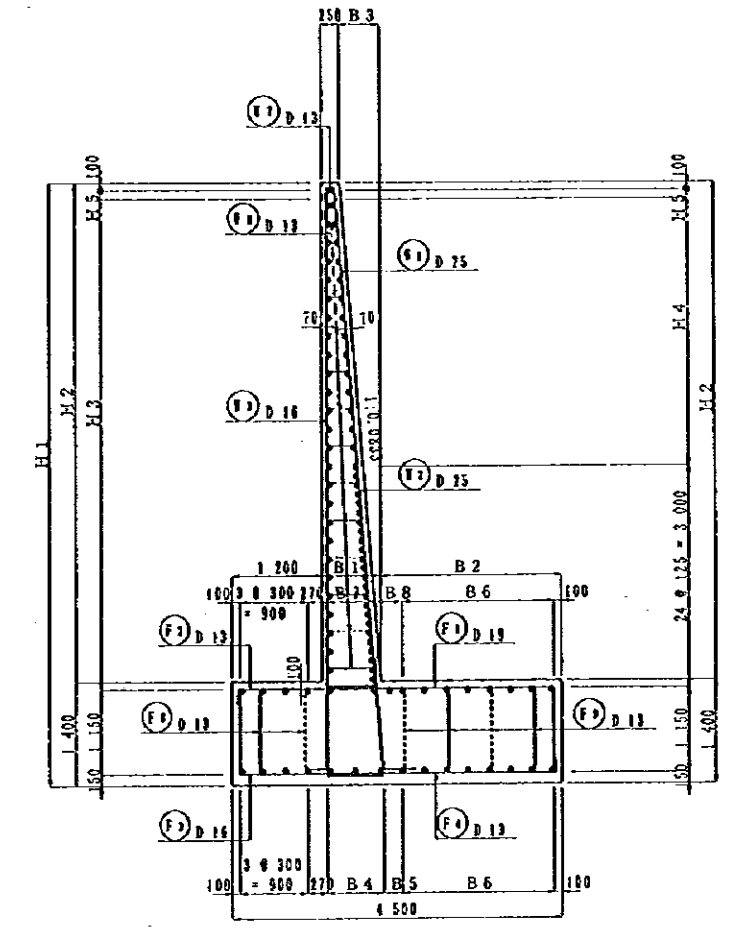
REIN NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 3					
V 1	D 22	6 170	6 048~5 827	330	---
2	"	4 000	3 662	330	---
3	D 16	6 060	6 029~5 803	240	---
4	D 13	15 190	14 800	390	---
5	"	9 270	4 607~13 534	390	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	590	522~291	111	---
F 1	D 16	3 450	2 300	1 150	---
2	D 13	1 680	1 430	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	2 530	2 330	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111
T 4					
V 1	D 22	6 550	6 469~6 048	330	---
2	"	4 000	3 662	330	---
3	D 16	6 400	6 448~6 029	240	---
4	D 13	15 190	14 800	390	---
5	"	8 010	5 334~10 669	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	600	556~194	111	---
F 1	D 16	3 420	2 266	1 150	---
2	D 13	1 710	1 514	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	2 530	2 330	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111
T 5					
V 1	D 22	6 990	6 845~6 489	330	---
2	"	4 000	3 662	330	---
3	D 16	6 800	6 823~6 449	240	---
4	D 13	15 190	14 800	390	---
5	"	6 920	6 920	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	630	586~224	111	---
F 1	D 16	3 390	2 236	1 150	---
2	D 13	1 740	1 544	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	2 530	2 330	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111
T 6					
V 1	D 22	6 910	6 766~6 385	330	---
2	"	4 000	3 662	330	---
3	D 16	6 800	6 746~6 344	240	---
4	D 13	15 190	14 800	390	---
5	"	10 390	6 793~12 586	390	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	630	580~218	111	---
F 1	D 16	3 400	2 242	1 150	---
2	D 13	1 740	1 538	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	2 530	2 330	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

REIN NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 4					
V 1	D 22	6 120	6 001~5 579	330	---
2	"	4 000	3 662	330	---
3	D 16	6 010	5 982~5 555	240	---
4	D 13	15 190	14 800	390	---
5	"	8 750	5 831~11 643	390	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	580	518~197	111	---
F 1	D 16	3 460	2 304	1 150	---
2	D 13	1 680	1 436	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	2 530	2 330	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111
T 5					
V 1	D 22	6 530	6 385~6 001	330	---
2	"	4 000	3 662	330	---
3	D 16	6 470	6 364~5 982	240	---
4	D 13	15 190	14 800	390	---
5	"	8 410	6 403	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	620	545~228	111	---
F 1	D 16	3 430	2 278	1 150	---
2	D 13	1 710	1 507	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	2 530	2 330	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111
T 6					
V 1	D 22	6 910	6 766~6 385	330	---
2	"	4 000	3 662	330	---
3	D 16	6 800	6 746~6 344	240	---
4	D 13	15 190	14 800	390	---
5	"	10 390	6 793~12 586	390	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	630	580~218	111	---
F 1	D 16	3 400	2 242	1 150	---
2	D 13	1 740	1 538	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	2 530	2 330	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

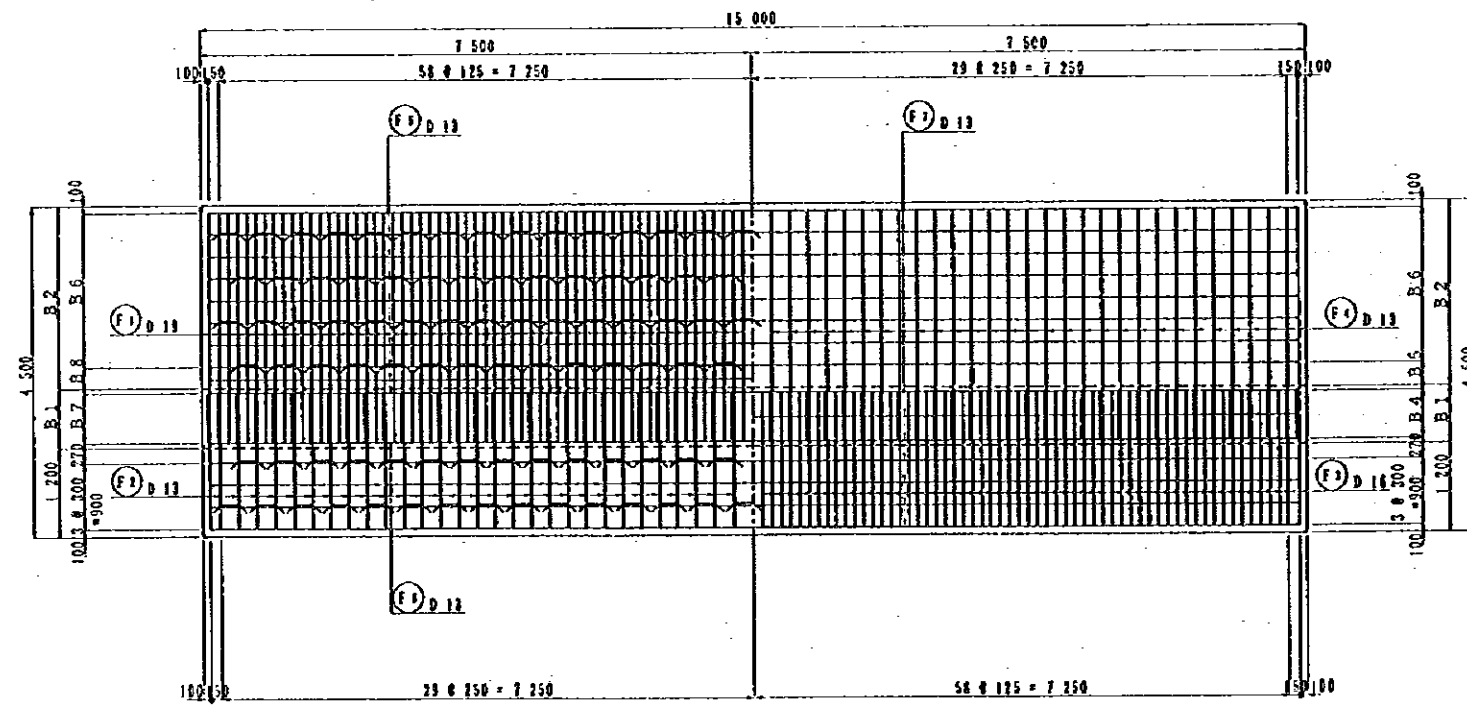
NOTES:



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

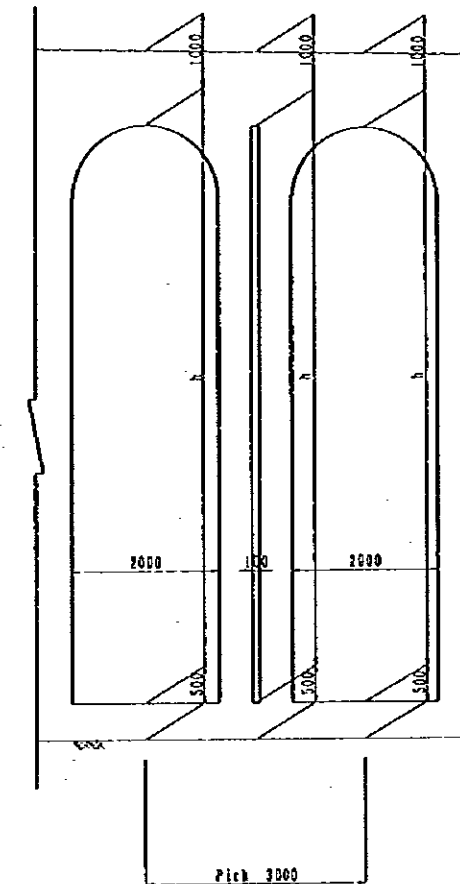
NOTES:

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 :	R/A-12, SOHAR RE-BAR ARRANGEMENT (10)
DATE :	DWG NO. W-12

A L I N E	T-6		T-7		T-6						
	a - a	b - b	a - a	b - b	a - a	b - b					
	Ha1	8109	Hb1	7778	Ha1	7778	Hb1	7447	Ha1	7447	Hb1
Ha2	6709	Hb2	6378	Ha2	6378	Hb2	6047	Ha2	6047	Hb2	5673
Ha3	260250 = 6500	Hb3	250250 = 6250	Ha3	250250 = 6250	Hb3	240250 = 6000	Ha3	230250 = 5750	Hb3	220250 = 5500
Ha4	140250 = 3500	Hb4	130250 = 3250	Ha4	130250 = 3250	Hb4	120250 = 3000	Ha4	110250 = 2750	Hb4	100250 = 2500
Ha5	209	Hb5	128	Ha5	128	Hb5	47	Ha5	20148.5 = 297	Hb5	173
Ba1	809	Bb1	782	Ba1	782	Bb1	754	Ba1	754	Bb1	723
Ba2	2491	Bb2	2518	Ba2	2518	Bb2	2546	Ba2	2546	Bb2	2577
Ba3	559	Bb3	532	Ba3	532	Bb3	504	Ba3	504	Bb3	473
Ba4	20386.5 = 773	Bb4	20372.5 = 745	Ba4	20372.5 = 745	Bb4	20359 = 718	Ba4	20359 = 718	Bb4	20343.5 = 687
Ba5	257	Bb5	285	Ba5	20142.5 = 285	Bb5	20156 = 312	Ba5	20156 = 312	Bb5	20171.5 = 343
Ba6	70300 = 2100	Bb6	70300 = 2100	Ba6	70300 = 2100	Bb6	70300 = 2100	Ba6	70300 = 2100	Bb6	70300 = 2100
Ba7	677	Bb7	650	Ba7	650	Bb7	622	Ba7	622	Bb7	591
Ba8	20176.5 = 353	Bb8	20190 = 380	Ba8	20190 = 380	Bb8	20204 = 408	Ba8	20204 = 408	Bb8	20219.5 = 439

B L I N E	T-9		T-8		T-7						
	a - a	b - b	a - a	b - b	a - a	b - b					
	Ha1	7961	Hb1	7670	Ha1	7670	Hb1	7333	Ha1	7333	Hb1
Ha2	6561	Hb2	6270	Ha2	6270	Hb2	5933	Ha2	5933	Hb2	5596
Ha3	250250 = 6250	Hb3	250250 = 6250	Ha3	240250 = 6000	Hb3	230250 = 5750	Ha3	230250 = 5750	Hb3	220250 = 5500
Ha4	130250 = 3250	Hb4	130250 = 3250	Ha4	120250 = 3000	Hb4	110250 = 2750	Ha4	110250 = 2750	Hb4	100250 = 2500
Ha5	20155.5 = 311	Hb5	20	Ha5	20135 = 270	Hb5	183	Ha5	183	Hb5	96
Ba1	797	Bb1	773	Ba1	773	Bb1	744	Ba1	744	Bb1	716
Ba2	2503	Bb2	2527	Ba2	2527	Bb2	2556	Ba2	2556	Bb2	2584
Ba3	547	Bb3	523	Ba3	523	Bb3	494	Ba3	494	Bb3	466
Ba4	20380.5 = 761	Bb4	20368 = 736	Ba4	20368 = 736	Bb4	20354 = 708	Ba4	20354 = 708	Bb4	20340 = 680
Ba5	269	Bb5	294	Ba5	20147 = 294	Bb5	20161 = 322	Ba5	20161 = 322	Bb5	20175 = 350
Ba6	70300 = 2100	Bb6	70300 = 2100	Ba6	70300 = 2100	Bb6	70300 = 2100	Ba6	70300 = 2100	Bb6	70300 = 2100
Ba7	665	Bb7	641	Ba7	641	Bb7	612	Ba7	612	Bb7	584
Ba8	20182.5 = 365	Bb8	20194.5 = 389	Ba8	20194.5 = 389	Bb8	20209 = 418	Ba8	20209 = 418	Bb8	20223 = 446



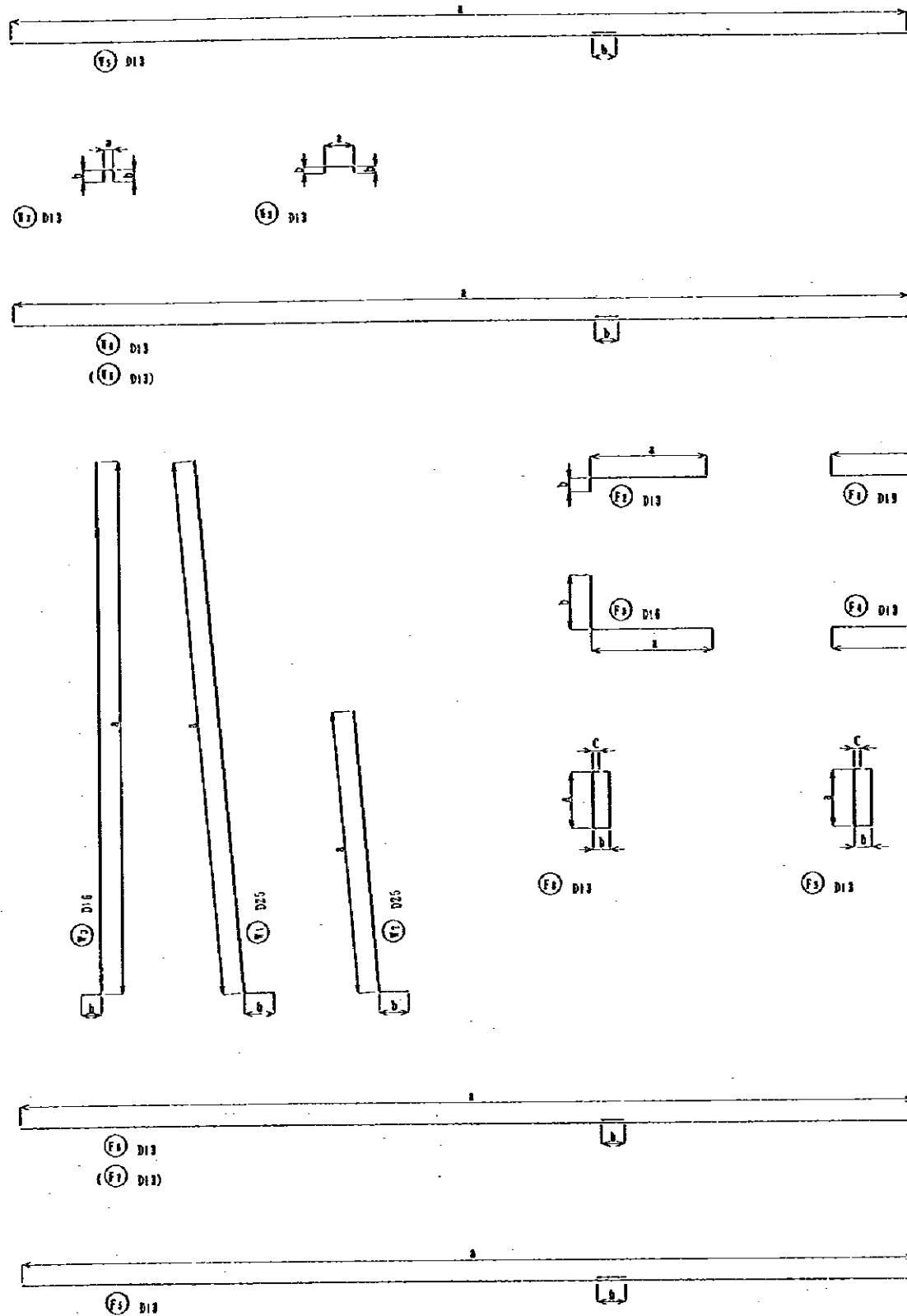
Slit Shape in Front of Wall
(Thickness 1=30 mm)

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (11)
DATE : _____ DWG NO. W-13



REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 6					
W 1	D 25	2 410	7 292~8 247	375	---
2	"	4 540	4 164	375	---
3	D 16	2 250	7 197~8 223	240	---
4	D 13	15 190	14 800	390	---
5	"	8 940	5 956~11 912	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	650	635~205	111	---
F 1	D 19	4 230	3 078	1 150	---
2	D 13	1 930	1 292	195	---
3	D 16	2 800	1 650	1 150	---
4	D 13	3 330	3 130	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 870	1 179	282	111
T 7					
W 1	D 25	2 270	7 554~7 222	375	---
2	"	4 540	4 164	375	---
3	D 16	2 610	7 528~7 197	240	---
4	D 13	15 190	14 800	390	---
5	"	5 810	5 801	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	660	643~204	111	---
F 1	D 19	4 200	3 050	1 150	---
2	D 13	2 020	1 229	195	---
3	D 16	2 800	1 650	1 150	---
4	D 13	3 330	3 130	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 870	1 179	282	111
T 8					
W 1	D 25	8 100	7 286~7 554	375	---
2	"	4 540	4 164	375	---
3	D 16	2 940	7 859~7 528	240	---
4	D 13	15 190	14 800	390	---
5	"	9 480	9 471	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	670	630~159	111	---
F 1	D 19	4 120	3 023	1 150	---
2	D 13	1 950	1 347	195	---
3	D 16	2 800	1 650	1 150	---
4	D 13	3 330	3 130	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 870	1 179	282	111
T 9					
W 1	D 25	2 970	7 738~7 446	375	---
2	"	4 540	4 164	375	---
3	D 16	2 810	7 711~7 420	240	---
4	D 13	15 190	14 800	390	---
5	"	8 020	8 015	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	690	678~219	111	---
F 1	D 19	4 190	3 035	1 150	---
2	D 13	2 030	1 335	195	---
3	D 16	2 800	1 650	1 150	---
4	D 13	3 330	3 130	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 870	1 179	282	111

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 1					
W 1	D 25	2 320	7 188~6 769	375	---
2	"	4 540	4 164	375	---
3	D 16	2 160	7 093~6 746	240	---
4	D 13	15 190	14 800	390	---
5	"	8 150	8 145	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	640	625~209	111	---
F 1	D 19	4 240	3 088	1 150	---
2	D 13	1 980	1 788	195	---
3	D 16	2 800	1 650	1 150	---
4	D 13	3 330	3 130	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 870	1 179	282	111
T 2					
W 1	D 25	2 850	7 446~7 188	375	---
2	"	4 540	4 164	375	---
3	D 16	2 500	7 420~7 483	240	---
4	D 13	15 190	14 800	390	---
5	"	8 920	5 942~11 884	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	650	650~195	111	---
F 1	D 19	4 210	3 059	1 150	---
2	D 13	2 010	1 811	195	---
3	D 16	2 800	1 650	1 150	---
4	D 13	3 330	3 130	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 870	1 179	282	111
T 3					
W 1	D 25	2 970	7 738~7 446	375	---
2	"	4 540	4 164	375	---
3	D 16	2 810	7 711~7 420	240	---
4	D 13	15 190	14 800	390	---
5	"	8 020	8 015	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	690	678~219	111	---
F 1	D 19	4 190	3 035	1 150	---
2	D 13	2 030	1 335	195	---
3	D 16	2 800	1 650	1 150	---
4	D 13	3 330	3 130	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 870	1 179	282	111

NOTES:

A - LINE

REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NO. OF	WEIGHT	REMARKS
T 9						
V 1	D 29	8 419	5.059	61	42.850	2 613.8
2	"	5 110	"	58	25.851	1 499.4
3	D 19	8 290	2.235	61	18.528	1 130.2
4	D 13	15 190	0.994	66	15.099	996.5
5	"	13 240	"	2	13.161	26.3
6	"	15 200	"	2	15.109	30.2
7	"	500	"	61	0.497	30.3
8	"	700	"	384	0.696	267.3
F 1	D 22	4 430	3.042	119	13.476	1 603.6
2	D 13	2 380	0.994	61	2.376	144.9
3	D 19	3 190	2.235	119	7.130	848.5
4	D 16	3 570	1.552	61	5.541	338.0
5	"	15 280	"	10	23.715	237.2
6	D 13	15 190	0.994	6	15.099	90.6
7	"	15 190	"	17	15.099	256.7
8	"	2 870	"	58	2.853	165.5
9	"	2 890	"	116	2.863	332.1
10611.1						
T 10						
V 1	D 29	8 760	5.059	61	44.317	2 709.3
2	"	5 110	"	58	25.851	1 499.4
3	D 19	8 580	2.235	61	19.176	1 169.7
4	D 13	15 190	0.994	68	15.099	1 026.7
5	"	11 260	"	4	11.192	44.8
6	"	15 200	"	2	15.109	30.2
7	"	500	"	61	0.497	30.3
8	"	710	"	413	0.706	291.6
F 1	D 22	4 400	3.042	119	13.365	1 592.8
2	D 13	2 410	0.994	61	2.358	146.2
3	D 19	3 190	2.235	119	7.130	848.5
4	D 16	3 570	1.552	61	5.541	338.0
5	"	15 280	"	10	23.715	237.2
6	D 13	15 190	0.994	6	15.099	90.6
7	"	15 190	"	17	15.099	256.7
8	"	2 870	"	58	2.853	165.5
9	"	2 890	"	116	2.863	332.1
10893.6						
T 11						
V 1	D 29	9 078	5.059	61	45.865	2 799.0
2	"	5 110	"	58	25.851	1 499.4
3	D 19	8 890	2.235	61	19.869	1 217.0
4	D 13	15 190	0.994	72	15.099	1 087.1
5	"	5 300	"	2	5.268	10.5
6	"	15 200	"	2	15.109	30.2
7	"	500	"	61	0.497	30.3
8	"	730	"	413	0.726	299.8
F 1	D 22	4 300	3.042	119	13.324	1 585.0
2	D 13	2 440	0.994	61	2.426	147.9
3	D 19	3 190	2.235	119	7.130	848.5
4	D 16	3 570	1.552	61	5.541	338.0
5	"	15 280	"	10	23.715	237.2
6	D 13	15 190	0.994	6	15.099	90.6
7	"	15 190	"	17	15.099	256.7
8	"	2 870	"	58	2.853	165.5
9	"	2 890	"	116	2.863	332.1
10978.4						
D 29 12614.3						
D 22 4792.0						
D 19 6957.4						
D 16 1725.6						
D 13 7295.8						
TOTAL WEIGHT 32285.1						

B - LINE

REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NO. OF	WEIGHT	REMARKS
T 10						
V 1	D 29	8 370	5.059	61	47.091	2 547.6
2	"	5 110	"	58	25.851	1 499.4
3	D 19	8 150	2.235	61	18.215	1 111.1
4	D 13	15 190	0.994	66	15.099	996.5
5	"	5 230	"	2	5.199	10.4
6	"	15 200	"	2	15.109	30.2
7	"	500	"	61	0.497	30.3
8	"	690	"	384	0.696	263.4
F 1	D 22	4 440	3.042	119	13.506	1 607.2
2	D 13	2 370	0.994	61	2.358	142.7
3	D 19	3 190	2.235	119	7.130	848.5
4	D 16	3 570	1.552	61	5.541	338.0
5	"	15 280	"	10	23.715	237.2
6	D 13	15 190	0.994	6	15.099	90.6
7	"	15 190	"	17	15.099	256.7
8	"	2 870	"	58	2.853	165.5
9	"	2 890	"	116	2.863	332.1
10528.4						
T 11						
V 1	D 29	8 640	5.059	61	43.710	2 666.3
2	"	5 110	"	58	25.851	1 499.4
3	D 19	8 460	2.235	61	18.590	1 153.4
4	D 13	15 190	0.994	68	15.099	1 026.7
5	"	8 390	"	2	8.340	16.7
6	"	15 200	"	2	15.109	30.2
7	"	500	"	61	0.497	30.3
8	"	700	"	413	0.696	287.4
F 1	D 22	4 410	3.042	119	13.415	1 596.4
2	D 13	2 400	0.994	61	2.386	145.5
3	D 19	3 190	2.235	119	7.130	848.5
4	D 16	3 570	1.552	61	5.541	338.0
5	"	15 280	"	10	23.715	237.2
6	D 13	15 190	0.994	6	15.099	90.6
7	"	15 190	"	17	15.099	256.7
8	"	2 870	"	58	2.853	165.5
9	"	2 890	"	116	2.863	332.1
10720.8						
D 29 8232.7						
D 22 3203.6						
D 19 3961.5						
D 16 1160.4						
D 13 4781.1						
TOTAL WEIGHT 21248.3						

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (13)
DATE : DWG NO. W-15

A - LINE

REIN NO.	Ø (mm)	LENGTH (cm)	NOMINAL WEIGHT	NUMB	C WEIGHT	WEIGHT	REMARKS
T 1							
1	D 18	5 280	2.235	61	11.801	719.9	L
2	"	3 450	"	58	7.711	447.2	L
3	D 13	5 180	0.994	61	5.149	316.1	J
4	"	15 190	"	36	15.099	543.6	---
5	"	7 700	"	4	7.654	30.6	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	550	"	207	0.541	113.2	"
F 1	D 16	3 240	1.552	119	5.028	598.3	---
2	D 13	1 390	0.994	61	1.382	84.3	---
3	D 16	2 400	1.552	119	3.725	443.3	---
4	D 13	2 230	0.994	61	2.217	135.2	---
5	"	15 190	"	7	15.099	105.7	---
6	"	15 190	"	4	15.099	60.4	---
7	"	15 190	"	12	15.099	181.2	---
8	"	2 860	"	29	2.843	82.4	⊙
9	"	2 860	"	58	2.843	164.9	⊙
						4824.8	
T 2							
1	D 18	5 700	2.235	61	12.739	727.1	L
2	"	3 450	"	58	7.711	447.2	L
3	D 13	5 690	0.994	61	5.566	339.5	J
4	"	15 190	"	40	15.099	604.0	---
5	"	7 450	"	4	7.405	29.6	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	560	"	236	0.557	131.5	"
F 1	D 16	3 210	1.552	119	4.982	592.9	---
2	D 13	1 430	0.994	61	1.421	86.7	---
3	D 16	2 400	1.552	119	3.725	443.3	---
4	D 13	2 230	0.994	61	2.217	135.2	---
5	"	15 190	"	7	15.099	105.7	---
6	"	15 190	"	4	15.099	60.4	---
7	"	15 190	"	12	15.099	181.2	---
8	"	2 860	"	29	2.843	82.4	⊙
9	"	2 860	"	58	2.843	164.9	⊙
						4747.1	
D 18						2391.4	
D 16						7077.8	
D 13						3857.7	
TOTAL WEIGHT						8226.9	

B - LINE

REIN NO.	Ø (mm)	LENGTH (cm)	NOMINAL WEIGHT	NUMB	C WEIGHT	WEIGHT	REMARKS
T 1							
1	D 18	4 790	2.235	61	10.708	658.1	L
2	"	3 450	"	58	7.711	447.2	L
3	D 13	4 650	0.994	61	4.182	284.4	J
4	"	15 190	"	32	15.099	483.2	---
5	"	8 010	"	4	7.952	32.0	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	530	"	127	0.527	92.3	"
F 1	D 16	3 260	1.552	119	5.091	605.8	---
2	D 13	1 360	0.994	61	1.352	82.5	---
3	D 16	2 400	1.552	119	3.725	443.3	---
4	D 13	2 230	0.994	61	2.217	135.2	---
5	"	15 190	"	7	15.099	105.7	---
6	"	15 190	"	4	15.099	60.4	---
7	"	15 190	"	12	15.099	181.2	---
8	"	2 860	"	29	2.843	82.4	⊙
9	"	2 860	"	58	2.843	164.9	⊙
						3315.1	
T 2							
1	D 18	5 270	2.235	61	11.667	711.7	L
2	"	3 450	"	58	7.711	447.2	L
3	D 13	5 110	0.994	61	5.078	339.8	J
4	"	15 190	"	36	15.099	543.6	---
5	"	8 010	"	2	7.952	16.0	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	560	"	207	0.537	113.2	"
F 1	D 16	3 240	1.552	119	5.028	598.3	---
2	D 13	1 390	0.994	61	1.382	84.3	---
3	D 16	2 400	1.552	119	3.725	443.3	---
4	D 13	2 230	0.994	61	2.217	135.2	---
5	"	15 190	"	7	15.099	105.7	---
6	"	15 190	"	4	15.099	60.4	---
7	"	15 190	"	12	15.099	181.2	---
8	"	2 860	"	29	2.843	82.4	⊙
9	"	2 860	"	58	2.843	164.9	⊙
						4955.7	
T 3							
1	D 18	5 650	2.235	61	12.628	770.3	L
2	"	3 450	"	58	7.711	447.2	L
3	D 13	5 540	0.994	61	5.507	335.9	J
4	"	15 190	"	38	15.099	573.8	---
5	"	10 010	"	4	9.950	39.8	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	560	"	207	0.537	113.2	"
F 1	D 16	3 210	1.552	119	4.982	592.9	---
2	D 13	1 420	0.994	61	1.411	86.1	---
3	D 16	2 400	1.552	119	3.725	443.3	---
4	D 13	2 230	0.994	61	2.217	135.2	---
5	"	15 190	"	7	15.099	105.7	---
6	"	15 190	"	4	15.099	60.4	---
7	"	15 190	"	12	15.099	181.2	---
8	"	2 860	"	29	2.843	82.4	⊙
9	"	2 860	"	58	2.843	164.9	⊙
						4194.9	
D 18						3478.7	
D 16						3126.9	
D 13						5581.1	
TOTAL WEIGHT						12165.1	

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (14)
DATE : DTC NO. W-16

A - LINE

REIN NO.	Ø (mm)	LENGTH (m)	NOMINAL WEIGHT	NMB	U WEIGHT	WEIGHT	REMARKS
T 3							
V 1	D 22	6 170	3.042	61	18.769	1 144.9	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 000	1.552	61	9.405	578.7	J
4	D 13	15 199	0.994	44	15.059	664.4	---
5	"	9 270	"	4	9.214	36.9	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	#
8	"	599	"	295	0.596	155.9	#
F 1	D 16	3 450	1.552	119	5.354	637.1	---
2	D 13	1 620	0.994	61	1.670	101.9	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	2 530	0.994	61	2.515	153.4	---
5	"	15 190	"	8	15.099	120.8	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	□
9	"	2 860	"	58	2.843	164.9	□
						5354.5	
T 4							
V 1	D 22	6 590	3.042	61	20.047	1 222.9	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 480	1.552	61	10.057	613.5	J
4	D 13	15 190	0.994	48	15.099	724.8	---
5	"	8 010	"	4	7.962	31.8	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	#
8	"	600	"	295	0.596	175.8	#
F 1	D 16	3 420	1.552	119	5.308	631.7	---
2	D 13	1 710	0.994	61	1.700	103.7	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	2 530	0.994	61	2.515	153.4	---
5	"	15 190	"	8	15.099	120.8	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	□
9	"	2 860	"	58	2.843	164.9	□
						5543.9	
T 5							
V 1	D 22	6 550	3.042	61	21.264	1 297.1	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 380	1.552	61	10.076	631.4	J
4	D 13	15 190	0.994	52	15.099	705.1	---
5	"	6 320	"	2	6.078	19.8	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	#
8	"	630	"	295	0.626	184.7	#
F 1	D 16	3 390	1.552	119	5.261	626.1	---
2	D 13	1 740	0.994	61	1.730	105.5	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	2 530	0.994	61	2.515	153.4	---
5	"	15 190	"	7	15.099	105.7	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	□
9	"	2 860	"	58	2.843	164.9	□
						5688.9	
						D 22	5782.0
						D 16	5174.1
						D 13	5620.6
						TOTAL WEIGHT	18586.7

B - LINE

REIN NO.	Ø (mm)	LENGTH (m)	NOMINAL WEIGHT	NMB	U WEIGHT	WEIGHT	REMARKS
T 4							
V 1	D 22	6 120	3.042	61	18.617	1 135.6	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 010	1.552	61	9.328	569.0	J
4	D 13	15 190	0.994	44	15.099	664.4	---
5	"	8 750	"	2	8.698	17.4	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	#
8	"	599	"	266	0.596	153.5	#
F 1	D 16	3 460	1.552	119	5.370	639.0	---
2	D 13	1 650	0.994	61	1.670	101.9	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	2 530	0.994	61	2.515	153.4	---
5	"	15 190	"	8	15.099	120.8	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	□
9	"	2 860	"	58	2.843	164.9	□
						5370.5	
T 5							
V 1	D 22	6 530	3.042	61	19.864	1 211.7	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 430	1.552	61	9.964	607.8	J
4	D 13	15 190	0.994	48	15.099	724.8	---
5	"	8 410	"	2	8.360	16.7	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	#
8	"	620	"	266	0.616	163.9	#
F 1	D 16	3 430	1.552	119	5.323	633.4	---
2	D 13	1 710	0.994	61	1.700	103.7	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	2 530	0.994	61	2.515	153.4	---
5	"	15 190	"	8	15.099	120.8	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	□
9	"	2 860	"	58	2.843	164.9	□
						5501.7	
T 6							
V 1	D 22	6 910	3.042	61	21.020	1 282.2	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 800	1.552	61	10.554	643.8	J
4	D 13	15 190	0.994	50	15.099	755.0	---
5	"	10 390	"	4	10.328	41.9	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	#
8	"	630	"	295	0.626	184.7	#
F 1	D 16	3 400	1.552	119	5.277	628.0	---
2	D 13	1 740	0.994	61	1.730	105.5	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	2 530	0.994	61	2.515	153.4	---
5	"	15 190	"	7	15.099	105.7	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	□
9	"	2 860	"	58	2.843	164.9	□
						5665.1	
						D 22	5746.6
						D 16	5161.8
						D 13	5579.1
						TOTAL WEIGHT	16487.8

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (15)
DATE : DYC NO. W-17

A-LINE

REIN NO.	Ø (mm)	LENGTH (mm)	VOLUMETRIC WEIGHT	NLMB	T WEIGHT	WEIGHT	REMARKS
T 6							
1	D 25	7 410	3.973	61	29.440	1 795.8	⌋
2	"	4 540	"	58	18.037	1 046.1	⌋
3	D 16	7 250	1.552	61	11.152	686.4	⌋
4	D 13	15 199	0.994	60	15.099	505.9	⌋
5	"	8 940	"	4	0.666	35.5	⌋
6	"	15 200	"	2	15.109	30.2	⌋
7	"	500	"	61	0.497	30.3	⌋
8	"	650	"	325	0.646	210.0	⌋
F 1							
1	D 19	4 230	2.235	119	9.454	1 125.0	⌋
2	D 13	1 999	0.994	61	1.970	120.7	⌋
3	D 16	2 800	1.552	119	4.346	517.2	⌋
4	D 13	3 330	0.994	61	3.310	201.9	⌋
5	"	15 199	"	10	15.099	151.0	⌋
6	"	15 199	"	5	15.099	75.5	⌋
7	"	15 199	"	16	15.099	241.6	⌋
8	"	2 840	"	58	2.843	164.9	⌋
9	"	2 870	"	116	2.853	330.9	⌋
						1668.9	
T 7							
1	D 25	7 770	3.973	61	30.870	1 833.1	⌋
2	"	4 540	"	58	18.037	1 046.1	⌋
3	D 16	7 640	1.552	61	11.811	720.5	⌋
4	D 13	15 199	0.994	60	15.099	905.9	⌋
5	"	5 810	"	2	5.775	11.6	⌋
6	"	15 200	"	2	15.109	30.2	⌋
7	"	500	"	61	0.497	30.3	⌋
8	"	660	"	354	0.658	232.2	⌋
F 1							
1	D 19	4 200	2.235	119	9.387	1 117.1	⌋
2	D 13	2 020	0.994	61	2.008	122.5	⌋
3	D 16	2 800	1.552	119	4.346	517.2	⌋
4	D 13	3 330	0.994	61	3.310	201.9	⌋
5	"	15 199	"	10	15.099	151.0	⌋
6	"	15 199	"	5	15.099	75.5	⌋
7	"	15 199	"	16	15.099	241.6	⌋
8	"	2 860	"	58	2.843	164.9	⌋
9	"	2 870	"	116	2.853	330.9	⌋
						7782.5	
T 8							
1	D 25	8 100	3.973	61	31.181	1 963.0	⌋
2	"	4 540	"	58	18.037	1 046.1	⌋
3	D 16	7 940	1.552	61	12.323	751.2	⌋
4	D 13	15 199	0.994	62	15.099	936.1	⌋
5	"	9 420	"	2	9.423	18.8	⌋
6	"	15 200	"	2	15.109	30.2	⌋
7	"	500	"	61	0.497	30.3	⌋
8	"	670	"	384	0.666	255.7	⌋
F 1							
1	D 19	4 180	2.235	119	9.342	1 111.7	⌋
2	D 13	2 050	0.994	61	2.036	124.3	⌋
3	D 16	2 800	1.552	119	4.346	517.2	⌋
4	D 13	3 330	0.994	61	3.310	201.9	⌋
5	"	15 199	"	10	15.099	151.0	⌋
6	"	15 199	"	5	15.099	75.5	⌋
7	"	15 199	"	15	15.099	226.5	⌋
8	"	2 860	"	58	2.843	164.9	⌋
9	"	2 870	"	116	2.853	330.9	⌋
						7935.8	
						D 25	8780.2
						D 19	3353.8
						D 16	3710.2
						D 13	7543.0
						TOTAL WEIGHT	23387.2

B-LINE

REIN NO.	Ø (mm)	LENGTH (mm)	VOLUMETRIC WEIGHT	NLMB	T WEIGHT	WEIGHT	REMARKS
T 7							
1	D 25	7 310	3.973	61	28.882	1 174.0	⌋
2	"	4 540	"	58	18.037	1 046.1	⌋
3	D 16	7 160	1.552	61	11.112	672.8	⌋
4	D 13	15 199	0.994	56	15.099	845.5	⌋
5	"	8 150	"	2	8.104	16.2	⌋
6	"	15 200	"	2	15.109	30.2	⌋
7	"	500	"	61	0.497	30.3	⌋
8	"	640	"	325	0.636	206.7	⌋
F 1							
1	D 19	4 240	2.235	119	9.476	1 127.4	⌋
2	D 13	1 980	0.994	61	1.968	120.0	⌋
3	D 16	2 800	1.552	119	4.346	517.2	⌋
4	D 13	3 330	0.994	61	3.310	201.9	⌋
5	"	15 199	"	10	15.099	151.0	⌋
6	"	15 199	"	5	15.099	75.5	⌋
7	"	15 199	"	16	15.099	241.6	⌋
8	"	2 860	"	58	2.843	164.9	⌋
9	"	2 870	"	116	2.853	330.9	⌋
						7557.4	
T 8							
1	D 25	7 660	3.973	61	30.432	1 856.4	⌋
2	"	4 540	"	58	18.037	1 046.1	⌋
3	D 16	7 500	1.552	61	11.640	710.0	⌋
4	D 13	15 199	0.994	58	15.099	875.7	⌋
5	"	8 920	"	4	8.866	35.5	⌋
6	"	15 200	"	2	15.109	30.2	⌋
7	"	500	"	61	0.497	30.3	⌋
8	"	650	"	354	0.646	228.7	⌋
F 1							
1	D 19	4 210	2.235	119	9.405	1 119.7	⌋
2	D 13	2 010	0.994	61	1.990	121.5	⌋
3	D 16	2 800	1.552	119	4.346	517.2	⌋
4	D 13	3 330	0.994	61	3.310	201.9	⌋
5	"	15 199	"	10	15.099	151.0	⌋
6	"	15 199	"	5	15.099	75.5	⌋
7	"	15 199	"	16	15.099	241.6	⌋
8	"	2 860	"	58	2.843	164.9	⌋
9	"	2 870	"	116	2.853	330.9	⌋
						7737.5	
T 9							
1	D 25	7 970	3.973	61	31.665	1 931.6	⌋
2	"	4 540	"	58	18.037	1 046.1	⌋
3	D 16	7 810	1.552	61	12.121	739.4	⌋
4	D 13	15 199	0.994	62	15.099	936.1	⌋
5	"	8 020	"	2	7.972	15.9	⌋
6	"	15 200	"	2	15.109	30.2	⌋
7	"	500	"	61	0.497	30.3	⌋
8	"	680	"	354	0.676	239.3	⌋
F 1							
1	D 19	4 190	2.235	119	9.365	1 114.4	⌋
2	D 13	2 030	0.994	61	2.018	123.1	⌋
3	D 16	2 800	1.552	119	4.346	517.2	⌋
4	D 13	3 330	0.994	61	3.310	201.9	⌋
5	"	15 199	"	10	15.099	151.0	⌋
6	"	15 199	"	5	15.099	75.5	⌋
7	"	15 199	"	15	15.099	226.5	⌋
8	"	2 860	"	58	2.843	164.9	⌋
9	"	2 870	"	116	2.853	330.9	⌋
						7876.3	
						D 25	8700.3
						D 19	3361.7
						D 16	3670.8
						D 13	7428.4
						TOTAL WEIGHT	22189.2

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

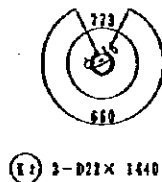
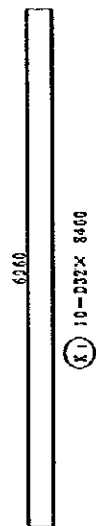
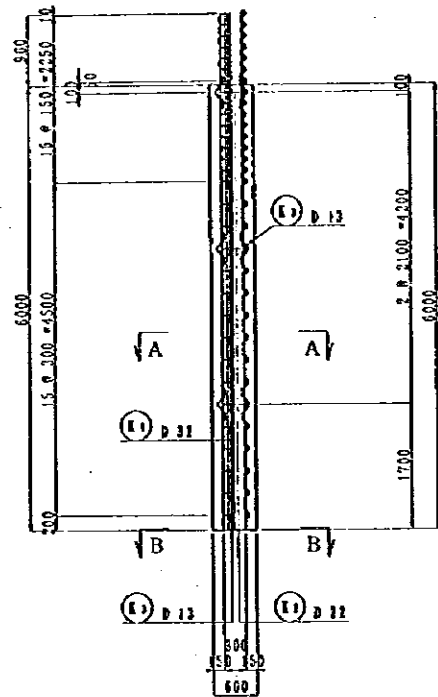
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

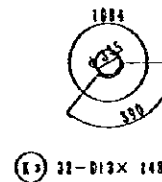
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (16)

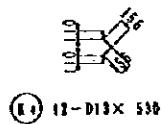
DATE : _____ DWG NO. W-18



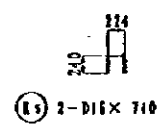
① 3-D22 x 1440



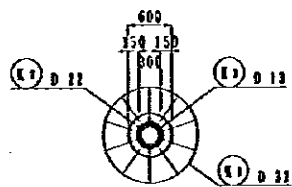
② 22-D22 x 1440



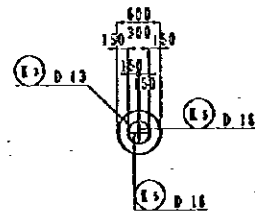
③ 12-D12 x 530



④ 2-D12 x 710



A-A



B-B

REIN NO.	φ (mm)	LENGTH (mm)	NOMINAL WEIGHT	NUM	D WEIGHT	WEIGHT	REMARKS
1	D 32	8 960	6.483	10	44.565	445.7	
2	D 22	1 440	3.482	3	4.899	14.7	○
3	D 13	1 480	0.994	38	1.471	47.4	○
4	"	530	"	18	0.527	8.3	○
5	D 16	710	1.552	2	1.102	2.2	□
						D 32	445.7
						D 22	14.7
						D 16	2.2
						D 13	59.4
						TOTAL WEIGHT	516.0

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

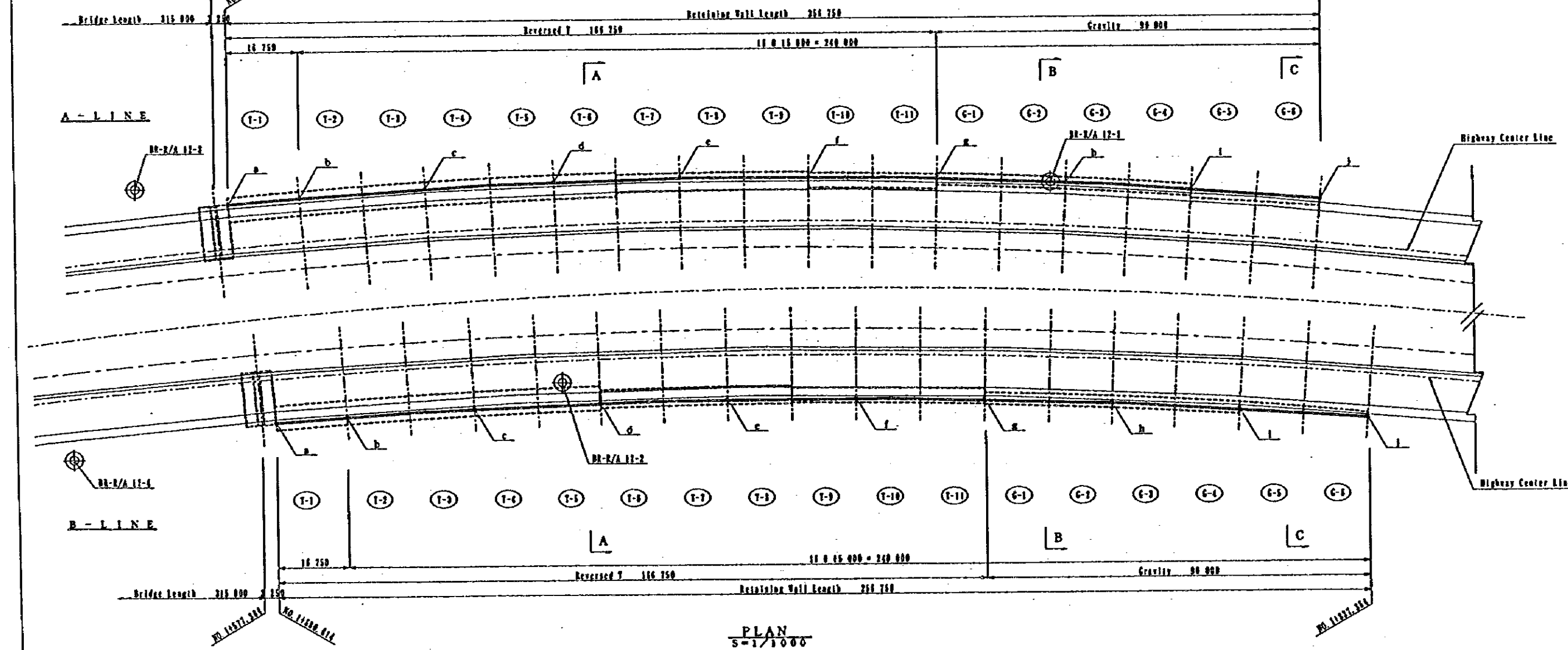
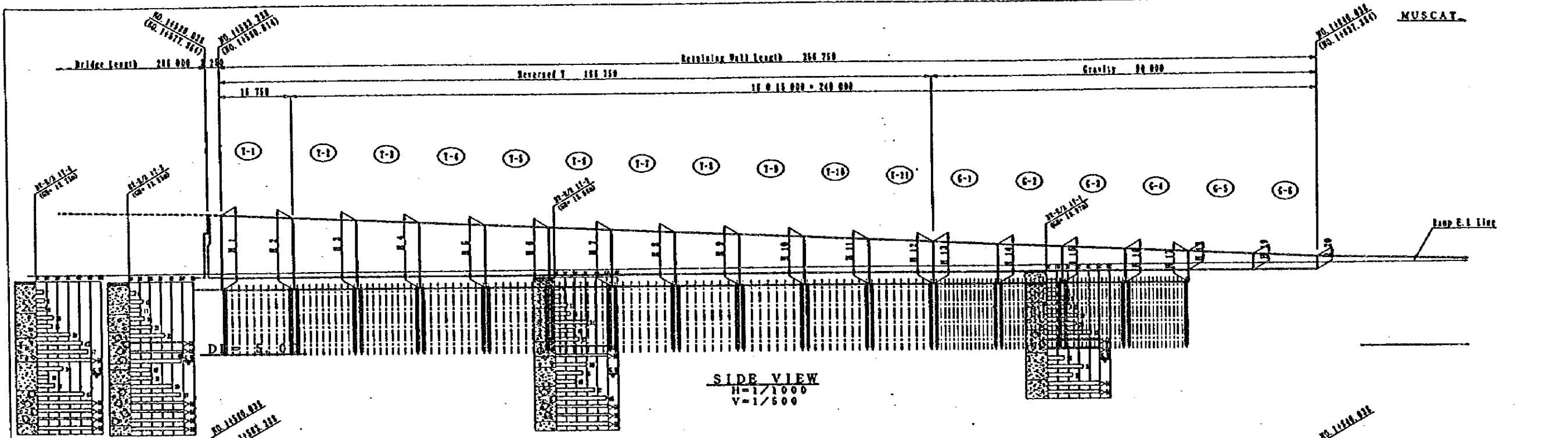
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (17)

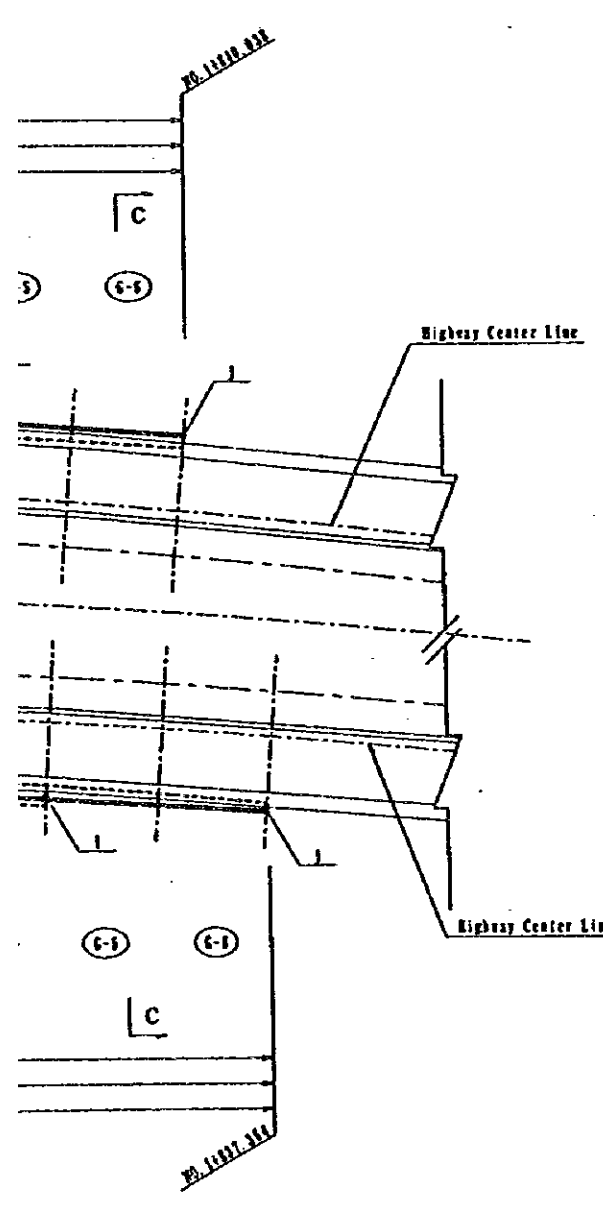
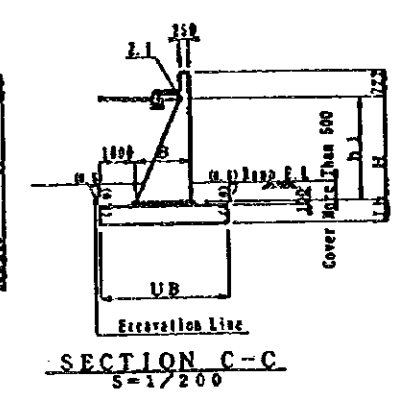
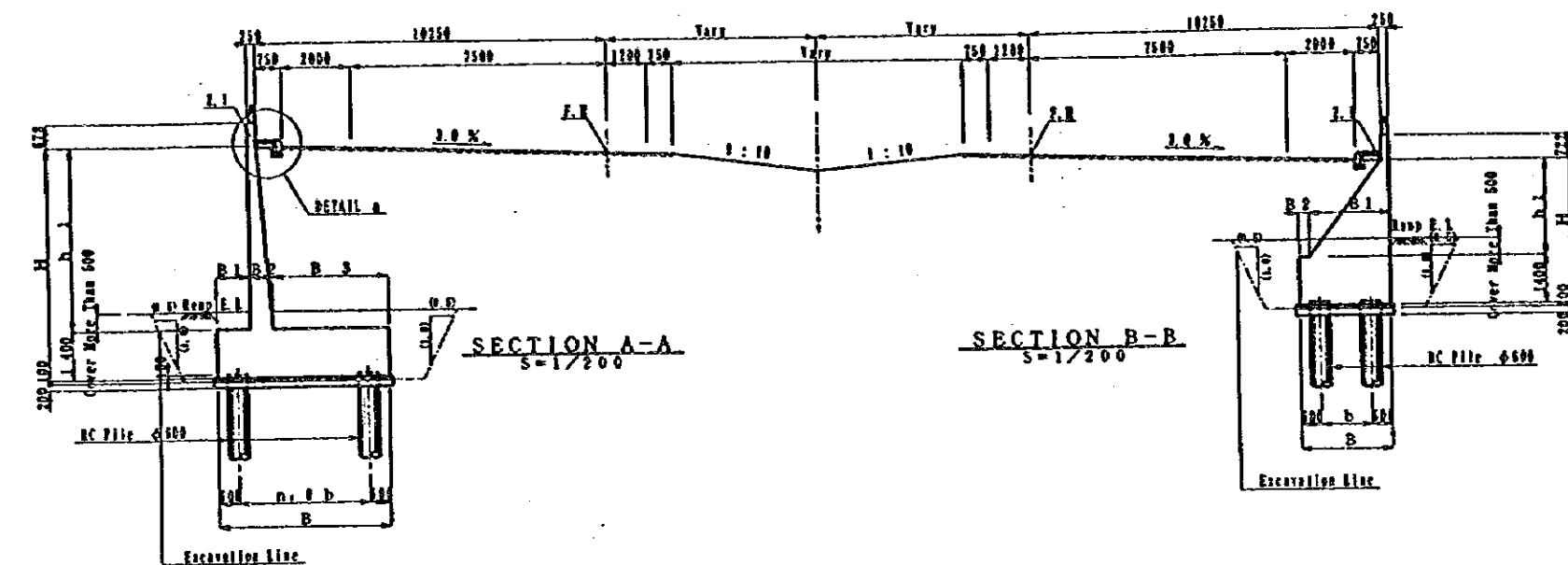
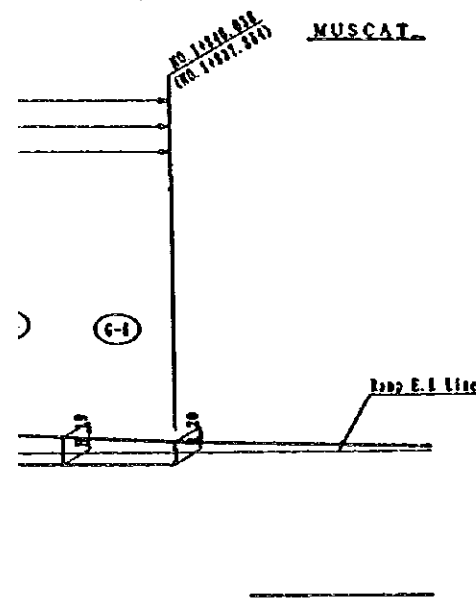
DATE : _____ DWG NO. W-19



MARK TYPE	Rever
T-1	
T-2	
T-3	
T-4	
T-5	
T-6	
T-7	
T-8	
T-9	
T-10	
T-11	
T-1	
T-1	
T-4	
T-5	
T-6	
T-7	
T-8	
T-9	
T-10	
T-11	

Rever
T 2 ~
T 4 ~
T 7 ~
T 10 ~
GRA

NOTES:



Reversed T

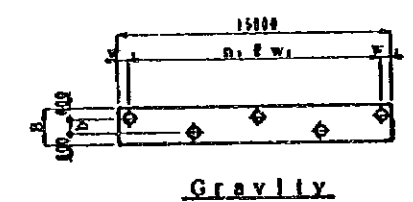
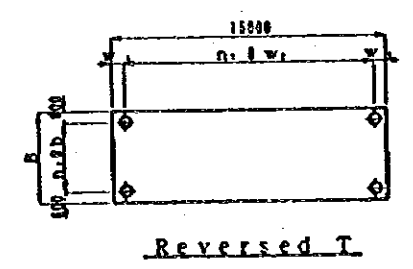
MARK TYPE	H	h ₁	B	B ₁	B ₂	B ₃	
A I L I N E	T-1	9+8 912	7 512	5 700	1 500	892	3 308
	T-2	1+8 633	7 293			869	3 331
	T-3	3+8 347	6 947			844	3 356
	T-4	4+8 061	6 661	5 700	1 500	820	3 380
	T-5	6+7 730	6 330			805	3 395
	T-6	8+7 399	5 999			778	3 422
	T-7	9+7 025	5 625	4 200	1 000	750	3 450
	T-8	10+6 650	5 250			719	3 481
	T-9	11+6 231	4 831			702	2 498
	T-10	12+5 811	4 411	3 500	800	672	2 528
	T-11	13+5 391	3 991			698	2 562
T-12	14+4 971	3 571	604			2 596	
B I L I N E	T-1	11+8 586	7 186	5 700	1 500	686	2 314
	T-2	1+8 303	6 903			554	2 146
	T-3	3+8 019	6 613			522	2 178
	T-4	4+7 722	6 322	5 700	1 500	865	3 335
	T-5	5+7 385	5 985			840	3 360
	T-6	6+7 048	5 648			816	3 384
	T-7	7+6 666	5 266	4 200	1 000	801	3 399
	T-8	8+6 284	4 884			777	3 423
	T-9	9+5 857	4 457			749	3 453
	T-10	10+5 429	4 029	4 200	1 000	721	3 479
	T-11	11+5 003	3 603			704	2 496
T-12	12+4 576	3 176	673			2 527	
C I L I N E	T-1	13+4 150	2 750	3 500	800	642	2 558
	T-2	14+3 725	2 325			608	2 592
	T-3	15+3 300	1 900			589	2 111
	T-4	16+2 875	1 475	3 500	800	557	2 143
	T-5	17+2 450	1 050			524	2 176
	T-6	18+2 025	625			492	2 208

Gravity (Pile Foundation)

MARK TYPE	H	h ₁	B	B ₁	B ₂	
A I L I N E	C-1	11+4 971	3 571	2 800	2 283	517
	C-2	14+4 619	3 219		2 083	717
	C-3	15+4 266	2 866		1 882	918
	C-4	16+3 982	2 582		1 720	1 080
B I L I N E	C-1	11+4 576	3 176	2 800	1 659	1 241
	C-2	14+4 209	2 809		2 059	741
	C-3	15+3 842	2 442		1 850	950
	C-4	16+3 534	2 134		1 641	1 159
C I L I N E	C-1	17+3 226	1 826	2 800	1 465	1 335
	C-2	18+2 918	1 518		1 290	1 510

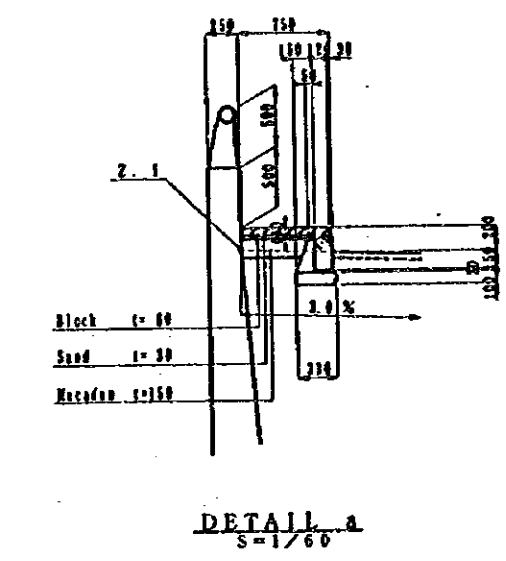
Gravity (Spread Foundation)

MARK TYPE	H	B	U _h	U _B	
A I L I N E	C-1	11+2 298	1 715	1 500	3 715
	C-2	15+2 083	1 678		3 578
B I L I N E	C-1	10+1 867	1 440	1 500	3 440
	C-2	11+3 826	1 414		3 414
C I L I N E	C-1	19+1 578	1 256	1 500	3 256
	C-2	20+1 329	1 097		3 097



List Of Foundation

Reversed T	A - LINE					Reversed T	B - LINE				
	n, B	w ₁	n, B ₁	n	L (m)		n, B	w ₁	n, B ₁	n	L (m)
T 1	3 @ 1 500	725	9 @ 1 700	40	7 500	T 1	3 @ 1 500	725	9 @ 1 700	40	7 500
T 2 ~ T 3	3 @ 1 500	760	9 @ 1 500	40		T 2	3 @ 1 500	750	9 @ 1 500	40	
T 4 ~ T 6	3 @ 1 500	600	8 @ 1 725	36		T 3 ~ T 5	3 @ 1 500	600	8 @ 1 725	36	
T 7 ~ T 9	2 @ 1 500	675	7 @ 1 950	24		T 6 ~ T 8	2 @ 1 500	675	7 @ 1 950	24	
T 10 ~ T 11	1 @ 2 300	600	8 @ 1 725	18		T 9 ~ T 11	1 @ 2 300	600	8 @ 1 725	18	
Gravity	1 @ 1 500	640	14 @ 980	15	7 500	Gravity	1 @ 1 500	640	14 @ 980	15	7 500



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
 PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
 JICA STUDY TEAM
 PACIFIC CONSULTANTS INTERNATIONAL
 FUKUYAMA CONSULTANTS INTERNATIONAL
 TITLE : R/A-12, SOHAR GENERAL VIEW FOR WALL (2)-1
 DATE : DVC NO. W-20

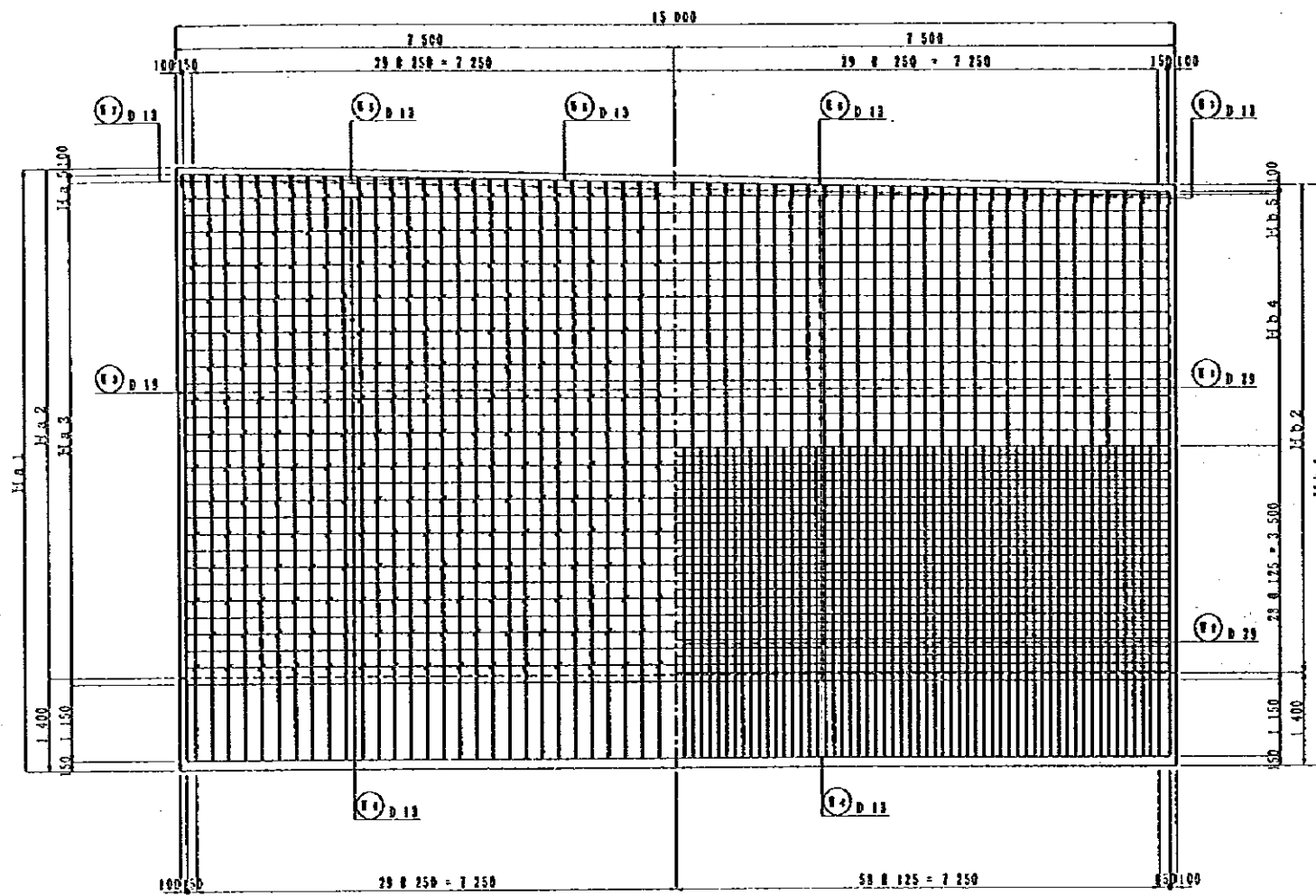
Point	a	b	c	d	e	f	g	h	i	j	
A L L I N E	N	+2692066.62690	+2692055.83150	+2692039.19345	+2692022.02818	+2692004.34345	+2691986.14726	+2691967.44786	+2691948.25370	+2691928.57346	+2691908.41606
	E	+ 472751.57194	+ 472768.40799	+ 472793.37079	+ 472817.97403	+ 47842.20658	+ 472866.05747	+ 472889.51591	+ 472912.57128	+ 472935.21315	+ 472957.43128
	Z	21.576	21.243	20.671	20.009	19.260	18.421	17.581	16.876	16.308	15.877
B I L L I N E	N	+269009.74085	+2691999.12746	+2691982.80963	+2691966.01969	+2691948.76362	+2691931.04756	+2691912.87783	+2691894.26088	+2691875.20335	+2691855.71203
	E	+ 472721.48510	+ 472738.43652	+ 472763.60996	+ 472788.47099	+ 472813.01078	+ 472837.22059	+ 472861.09178	+ 472884.61587	+ 472907.78447	+ 472930.58933
	Z	21.142	20.804	20.222	19.550	18.785	17.930	17.070	16.343	15.728	15.230

NOTES:

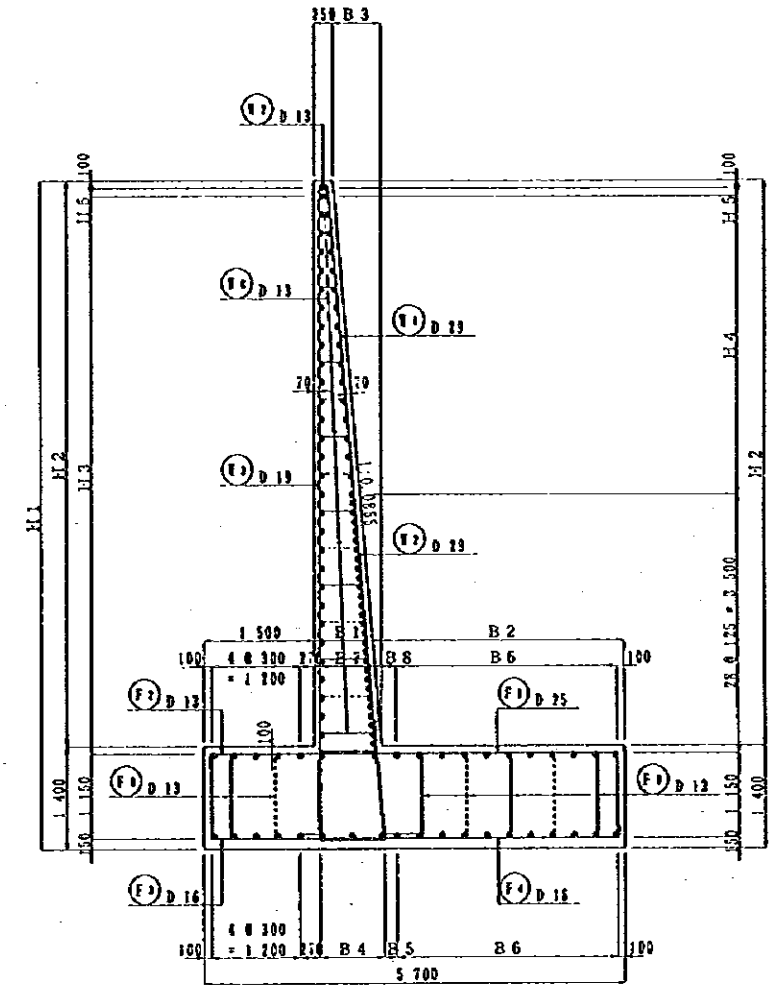
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

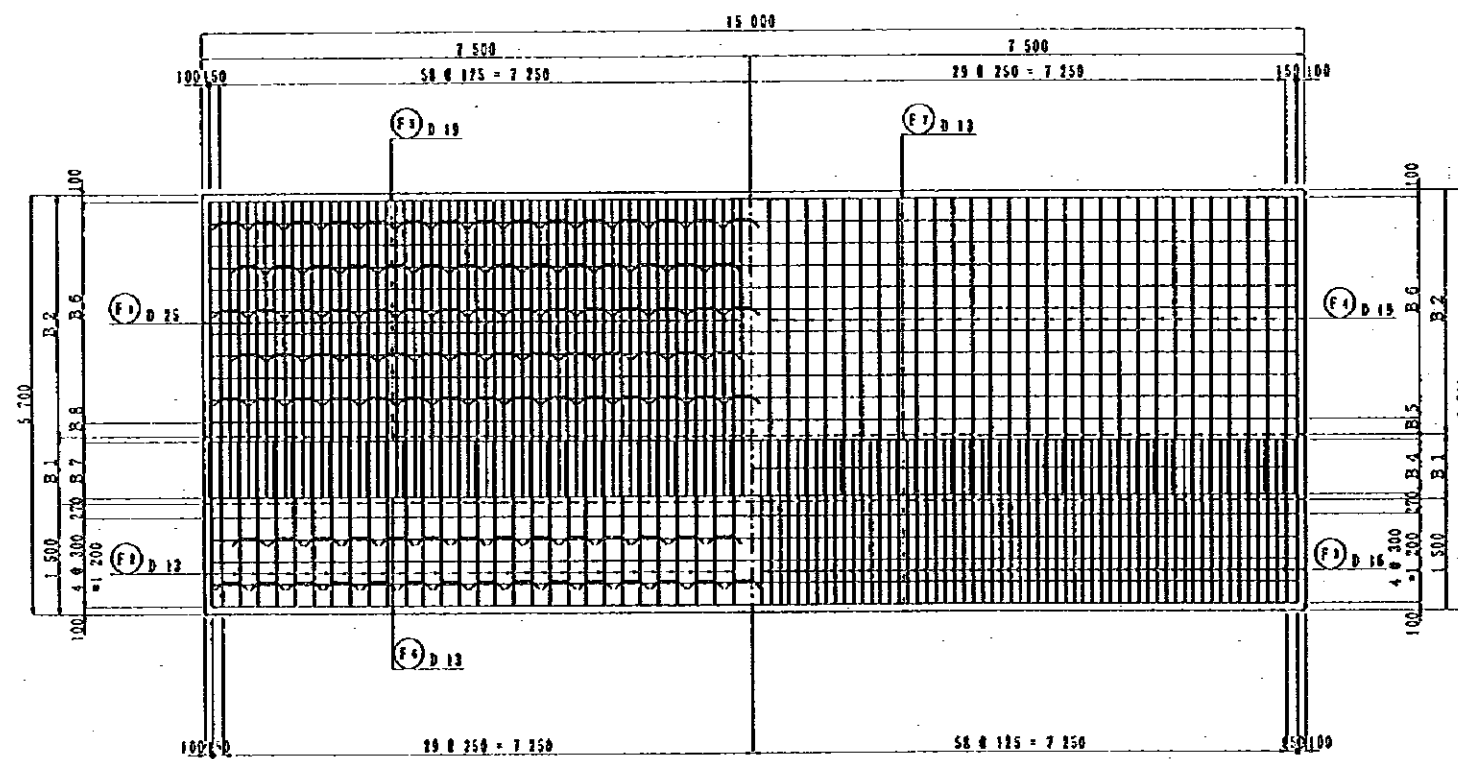
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-12, SOHAR GENERAL VIEW FOR WALL (2)-2
DATE : DWG NO. W-21



SIDE VIEW
S=1/100



SECTION
S=1/100



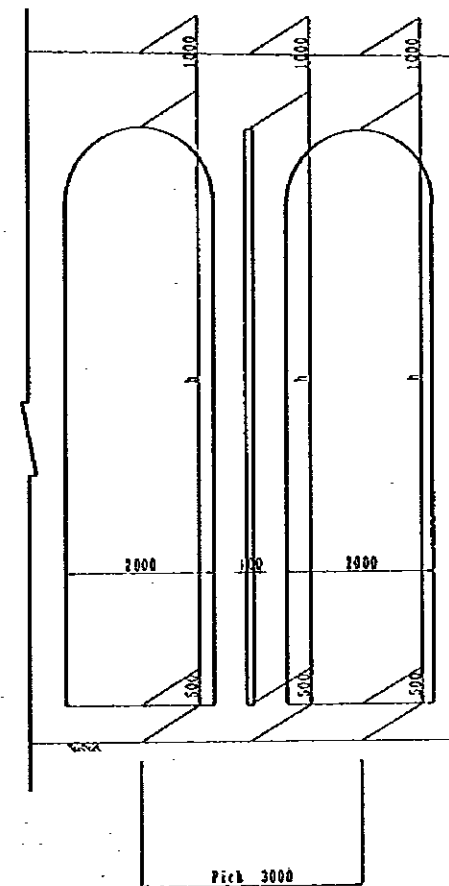
PLAN
S=1/100

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (I)
DATE :
DTG NO. W-22

	T-3		T-2		T-1							
	a - a	b - b	a - a	b - b	a - a	b - b						
A L I N E	Ha1	8 061	Hb1	8 347	Ha1	8 347	Hb1	8 633	Ha1	8 633	Hb1	8 966
	Ha2	6 661	Hb2	6 947	Ha2	6 947	Hb2	7 233	Ha2	7 233	Hb2	7 566
	Ha3	26@250 = 6 500	Hb3	27@250 = 6 750	Ha3	27@250 = 6 750	Hb3	28@250 = 7 000	Ha3	28@250 = 7 000	Hb3	29@250 = 7 250
	Ha4	12@250 = 3 000	Hb4	13@250 = 3 250	Ha4	13@250 = 3 250	Hb4	14@250 = 3 500	Ha4	14@250 = 3 500	Hb4	15@250 = 3 750
	Ha5	161	Hb5	197	Ha5	197	Hb5	233	Ha5	233	Hb5	2@158 = 316
	Ba1	820	Bb1	844	Ba1	844	Bb1	869	Ba1	869	Bb1	897
	Ba2	3 380	Bb2	3 356	Ba2	3 356	Bb2	3 331	Ba2	3 331	Bb2	3 303
	Ba3	570	Bb3	594	Ba3	594	Bb3	619	Ba3	619	Bb3	647
	Ba4	2@393 = 786	Bb4	2@405.5 = 811	Ba4	2@405.5 = 811	Bb4	2@417.5 = 835	Ba4	2@417.5 = 835	Bb4	2@431.5 = 863
	Ba5	244	Bb5	219	Ba5	219	Bb5	195	Ba5	195	Bb5	167
	Ba6	10@300 = 3 000	Bb6	10@300 = 3 000	Ba6	10@300 = 3 000	Bb6	10@300 = 3 000	Ba6	10@300 = 3 000	Bb6	10@300 = 3 000
	Ba7	688	Bb7	712	Ba7	712	Bb7	737	Ba7	737	Bb7	765
	Ba8	2@171 = 342	Bb8	2@159 = 318	Ba8	2@159 = 318	Bb8	2@146.5 = 293	Ba8	293	Bb8	265
	B L I N E	T-2		T-1								
		a - a	b - b	a - a	b - b	a - a	b - b					
		Ha1	8 013	Hb1	8 303	Ha1	8 303	Hb1	8 641	Ha1		Hb1
Ha2		6 613	Hb2	6 903	Ha2	6 903	Hb2	7 241	Ha2		Hb2	
Ha3		26@250 = 6 500	Hb3	27@250 = 6 750	Ha3	27@250 = 6 750	Hb3	28@250 = 7 000	Ha3		Hb3	
Ha4		12@250 = 3 000	Hb4	13@250 = 3 250	Ha4	13@250 = 3 250	Hb4	14@250 = 3 500	Ha4		Hb4	
Ha5		113	Hb5	153	Ha5	153	Hb5	241	Ha5		Hb5	
Ba1		816	Bb1	840	Ba1	840	Bb1	869	Ba1		Bb1	
Ba2		3 364	Bb2	3 360	Ba2	3 360	Bb2	3 331	Ba2		Bb2	
Ba3		566	Bb3	590	Ba3	590	Bb3	619	Ba3		Bb3	
Ba4		2@391 = 782	Bb4	2@403.5 = 807	Ba4	2@403.5 = 807	Bb4	2@418 = 836	Ba4		Bb4	
Ba5		248	Bb5	223	Ba5	223	Bb5	194	Ba5		Bb5	
Ba6		10@300 = 3 000	Bb6	10@300 = 3 000	Ba6	10@300 = 3 000	Bb6	10@300 = 3 000	Ba6		Bb6	
Ba7		684	Bb7	708	Ba7	708	Bb7	737	Ba7		Bb7	
Ba8		2@173 = 346	Bb8	2@161 = 322	Ba8	2@161 = 322	Bb8	2@146.5 = 293	Ba8		Bb8	

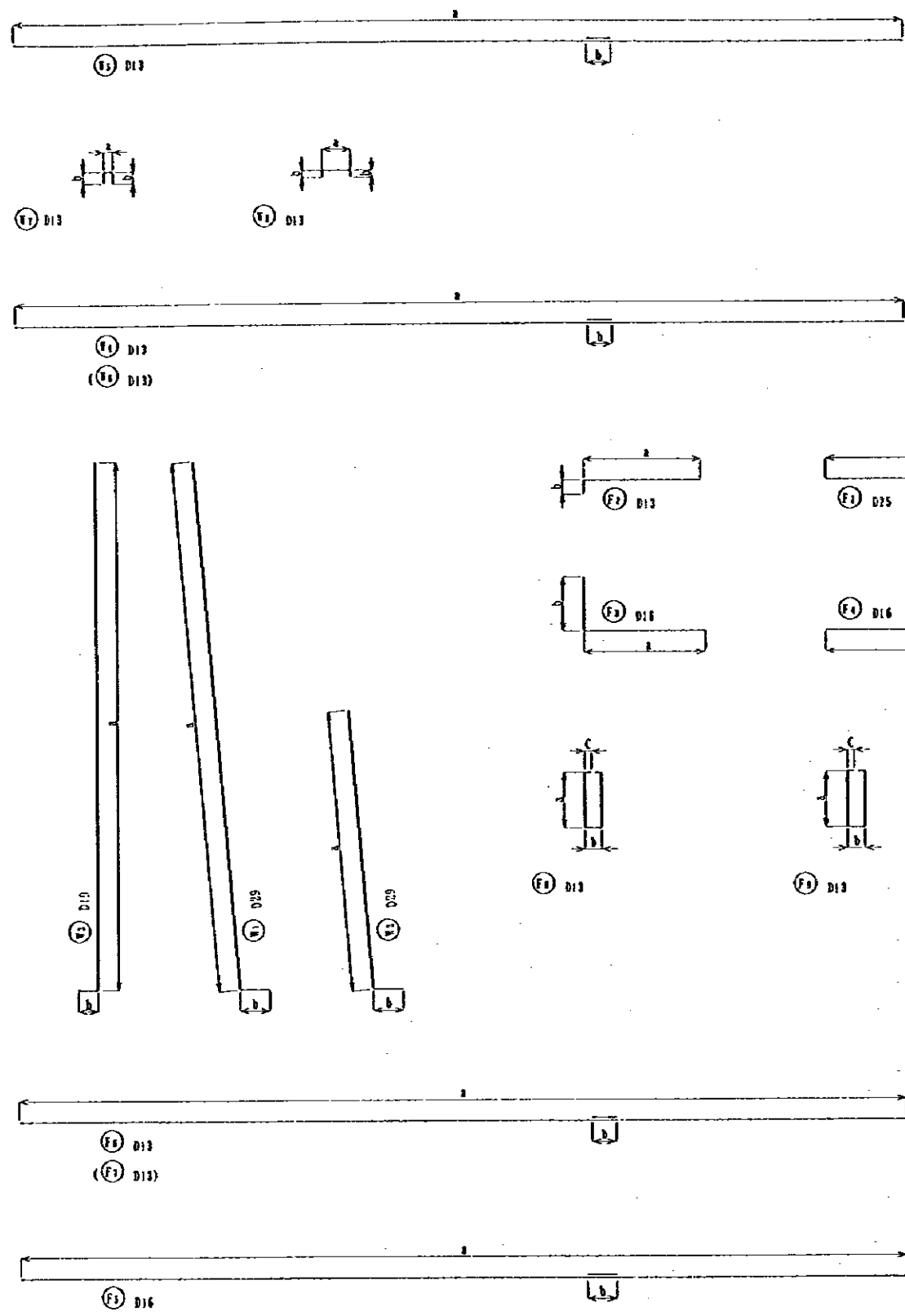


Slit Shape in Front of Wall
(Thickness l=30 mm)

NOTES:

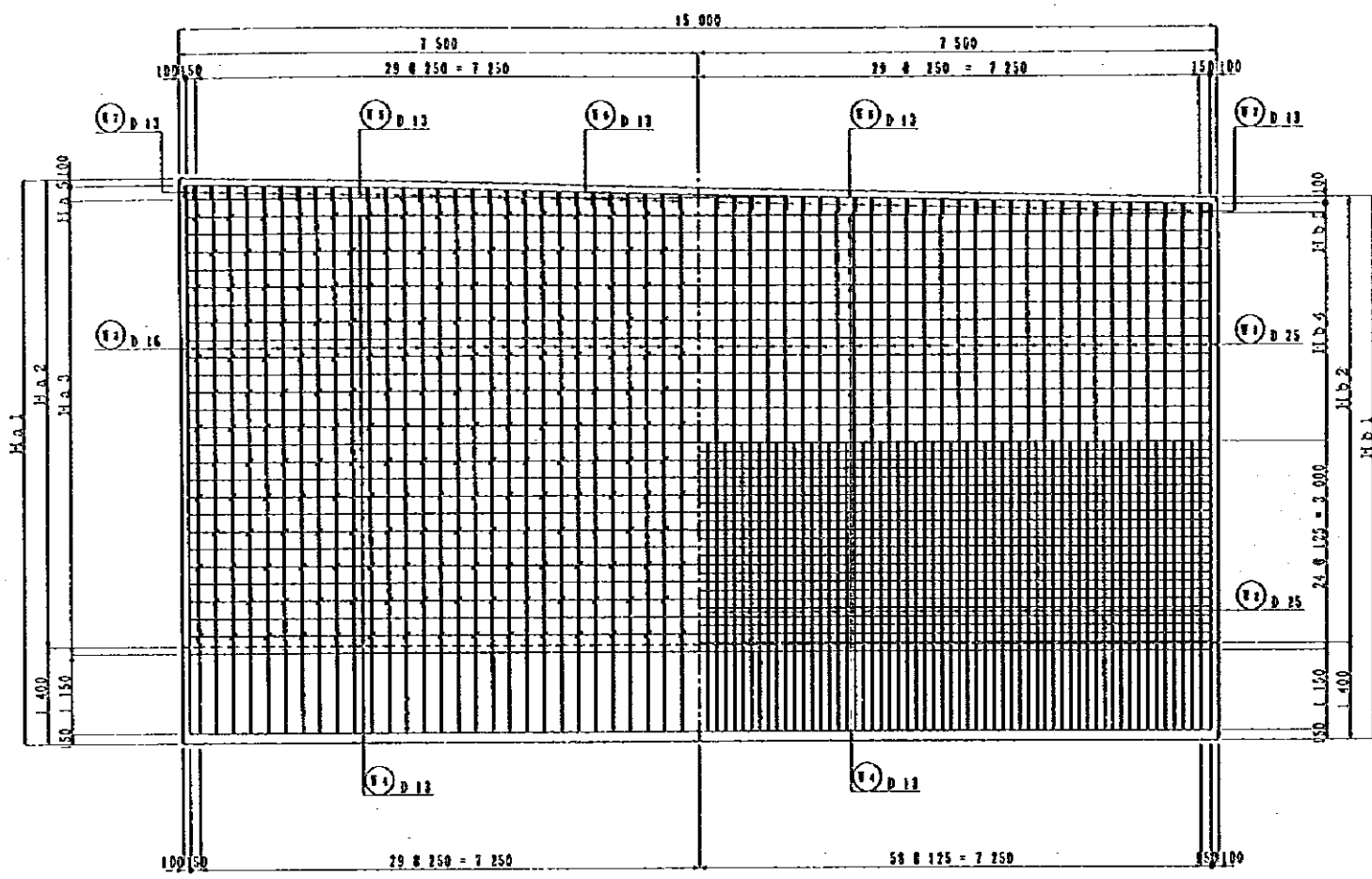
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUJUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (2)
DATE : DWG NO. W-23

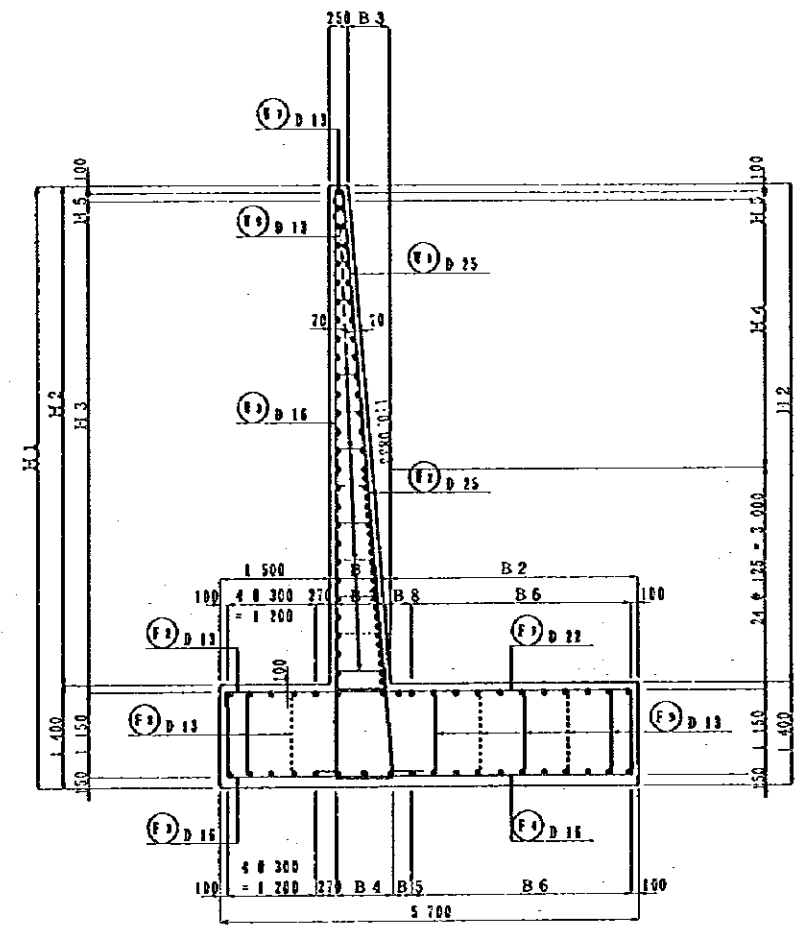


REIN NO.	φ (mm)	LENGTH (mm)	a	b	c
T 1					
1	D 29	9 020	8 248~8 414	435	---
2	"	5 110	4 667	435	---
3	D 19	8 840	8 216~8 383	285	---
4	D 13	15 150	14 800	390	---
5	"	10 880	7 117~14 234	390	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	700	281~225	111	---
F 1	D 25	5 170	4 015	1 150	---
2	D 13	2 430	2 235	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 150	14 800	390	---
7	"	15 150	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 850	1 184	288	111
T 2					
1	D 29	8 710	8 414~8 127	435	---
2	"	5 110	4 667	435	---
3	D 19	8 530	8 383~8 097	285	---
4	D 13	15 150	14 800	390	---
5	"	12 610	12 270	390	---
6	"	15 200	14 803	390	---
7	"	500	110	195	---
8	"	700	753~197	111	---
F 1	D 25	5 200	4 043	1 150	---
2	D 13	2 410	2 207	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 150	14 800	390	---
7	"	15 150	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 880	1 184	288	111
T 3					
1	D 29	8 420	8 127~7 839	435	---
2	"	5 110	4 667	435	---
3	D 19	8 240	8 097~7 811	285	---
4	D 13	15 150	14 800	390	---
5	"	10 340	10 332	---	---
6	"	15 200	14 803	390	---
7	"	500	110	195	---
8	"	700	728~215	111	---
F 1	D 25	5 220	4 068	1 150	---
2	D 13	2 380	2 182	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 150	14 800	390	---
7	"	15 150	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 830	1 184	288	111

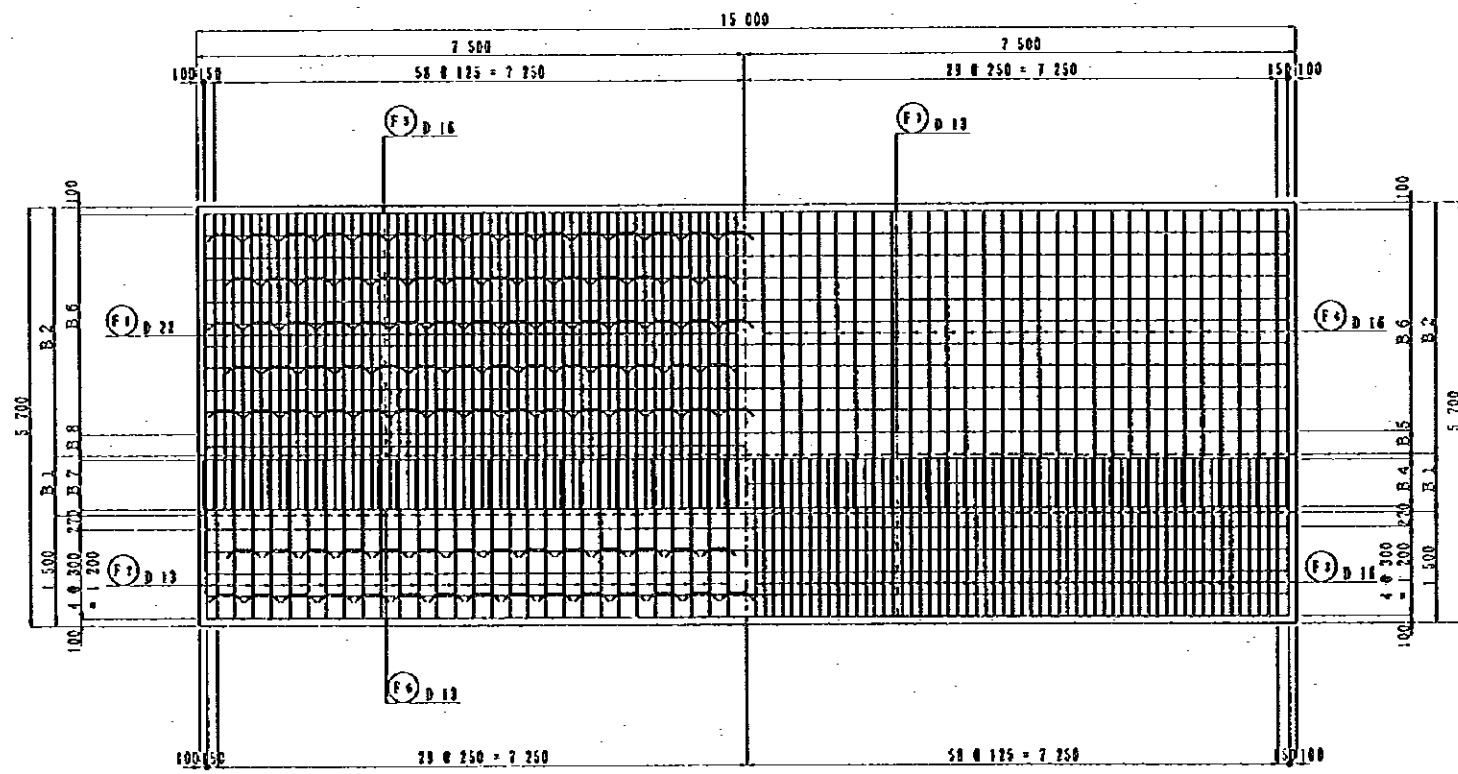
REIN NO.	φ (mm)	LENGTH (mm)	a	b	c
T 1					
1	D 29	8 690	8 422~8 082	435	---
2	"	5 110	4 667	435	---
3	D 19	8 510	8 351~8 059	285	---
4	D 13	15 150	14 800	390	---
5	"	10 700	10 695	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	700	753~198	111	---
F 1	D 25	5 200	4 043	1 150	---
2	D 13	2 410	2 207	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 150	14 800	390	---
7	"	15 150	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 850	1 184	288	111
T 2					
1	D 29	8 390	8 082~7 791	435	---
2	"	5 110	4 667	435	---
3	D 19	8 200	8 053~7 763	285	---
4	D 13	15 150	14 800	390	---
5	"	7 320	7 314	---	---
6	"	15 200	14 803	390	---
7	"	500	110	195	---
8	"	650	724~211	111	---
F 1	D 25	5 220	4 072	1 150	---
2	D 13	2 350	2 178	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 150	14 800	390	---
7	"	15 150	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 850	1 184	288	111



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

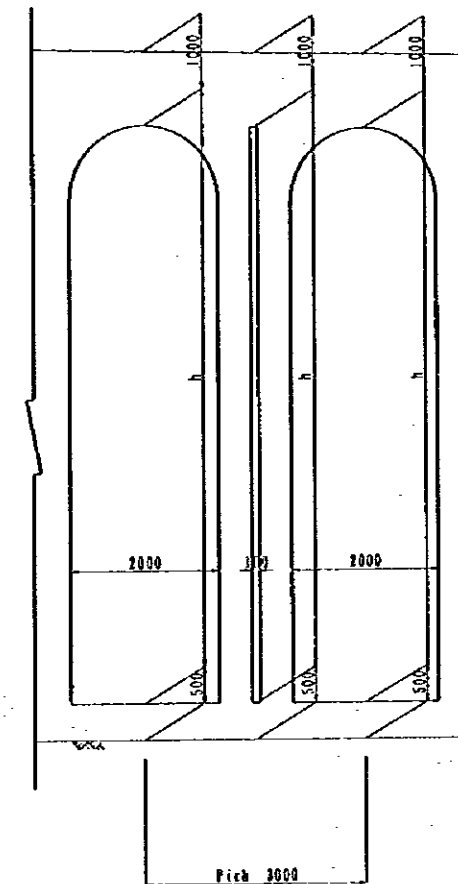
NOTES:

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (4)
DATE :
DWG NO. W-25

A I L I N E	T-6		T-5		T-4	
	a - a	b - b	a - a	b - b	a - a	b - b
	Ha1	7 025	Hb1 7 399	Ha1 7 399	Hb1 7 730	Ha1 7 730
Ha2	5 625	Hb2 5 999	Ha2 5 999	Hb2 6 330	Ha2 6 330	Hb2 6 661
Ha3	22@250 = 5 500	Hb3 23@250 = 5 750	Ha3 23@250 = 5 750	Hb3 24@250 = 6 000	Ha3 25@250 = 6 250	Hb3 26@250 = 6 500
Ha4	10@250 = 2 500	Hb4 11@250 = 2 750	Ha4 11@250 = 2 750	Hb4 12@250 = 3 000	Ha4 13@250 = 3 250	Hb4 14@250 = 3 500
Ha5	125	Hb5 249	Ha5 249	Hb5 2@165 = 330	Ha5 80	Hb5 161
Ba1	716	Bb1 750	Ba1 750	Bb1 778	Ba1 778	Bb1 805
Ba2	3 464	Bb2 3 450	Ba2 3 450	Bb2 3 422	Ba2 3 422	Bb2 3 395
Ba3	469	Bb3 500	Ba3 500	Bb3 528	Ba3 528	Bb3 555
Ba4	2@341.5 = 683	Bb4 2@357 = 714	Ba4 2@357 = 714	Bb4 2@370.5 = 741	Ba4 2@370.5 = 741	Bb4 2@384.5 = 769
Ba5	2@173.5 = 347	Bb5 2@158 = 316	Ba5 2@158 = 316	Bb5 2@144.5 = 289	Ba5 289	Bb5 261
Ba6	10@300 = 3 000	Bb6 10@300 = 3 000	Ba6 10@300 = 3 000	Bb6 10@300 = 3 000	Ba6 10@300 = 3 000	Bb6 10@300 = 3 000
Ba7	587	Bb7 618	Ba7 618	Bb7 646	Ba7 646	Bb7 673
Ba8	2@221.5 = 443	Bb8 2@206 = 412	Ba8 2@206 = 412	Bb8 2@192 = 384	Ba8 2@192 = 384	Bb8 2@178.5 = 357

B I L I N E	T-5		T-4		T-3	
	a - a	b - b	a - a	b - b	a - a	b - b
	Ha1	7 048	Hb1 7 384	Ha1 7 384	Hb1 7 722	Ha1 7 722
Ha2	5 648	Hb2 5 985	Ha2 5 985	Hb2 6 322	Ha2 6 322	Hb2 6 613
Ha3	22@250 = 5 500	Hb3 23@250 = 5 750	Ha3 23@250 = 5 750	Hb3 24@250 = 6 000	Ha3 25@250 = 6 250	Hb3 26@250 = 6 500
Ha4	10@250 = 2 500	Hb4 11@250 = 2 750	Ha4 11@250 = 2 750	Hb4 12@250 = 3 000	Ha4 13@250 = 3 250	Hb4 14@250 = 3 500
Ha5	148	Hb5 235	Ha5 235	Hb5 2@161 = 322	Ha5 72	Hb5 113
Ba1	721	Bb1 749	Ba1 749	Bb1 777	Ba1 777	Bb1 801
Ba2	3 479	Bb2 3 451	Ba2 3 451	Bb2 3 423	Ba2 3 423	Bb2 3 399
Ba3	471	Bb3 499	Ba3 499	Bb3 527	Ba3 527	Bb3 551
Ba4	2@342.5 = 685	Bb4 2@356.5 = 713	Ba4 2@356.5 = 713	Bb4 2@370.5 = 741	Ba4 2@370.5 = 741	Bb4 2@382.5 = 765
Ba5	2@172.5 = 345	Bb5 2@158.5 = 317	Ba5 2@158.5 = 317	Bb5 2@144.5 = 289	Ba5 289	Bb5 265
Ba6	10@300 = 3 000	Bb6 10@300 = 3 000	Ba6 10@300 = 3 000	Bb6 10@300 = 3 000	Ba6 10@300 = 3 000	Bb6 10@300 = 3 000
Ba7	589	Bb7 617	Ba7 617	Bb7 645	Ba7 645	Bb7 669
Ba8	2@220.5 = 441	Bb8 2@206.5 = 413	Ba8 2@206.5 = 413	Bb8 2@192.5 = 385	Ba8 2@192.5 = 385	Bb8 2@180.5 = 361



Slit Shape in Front of Wall
(Thickness t=30 mm)

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

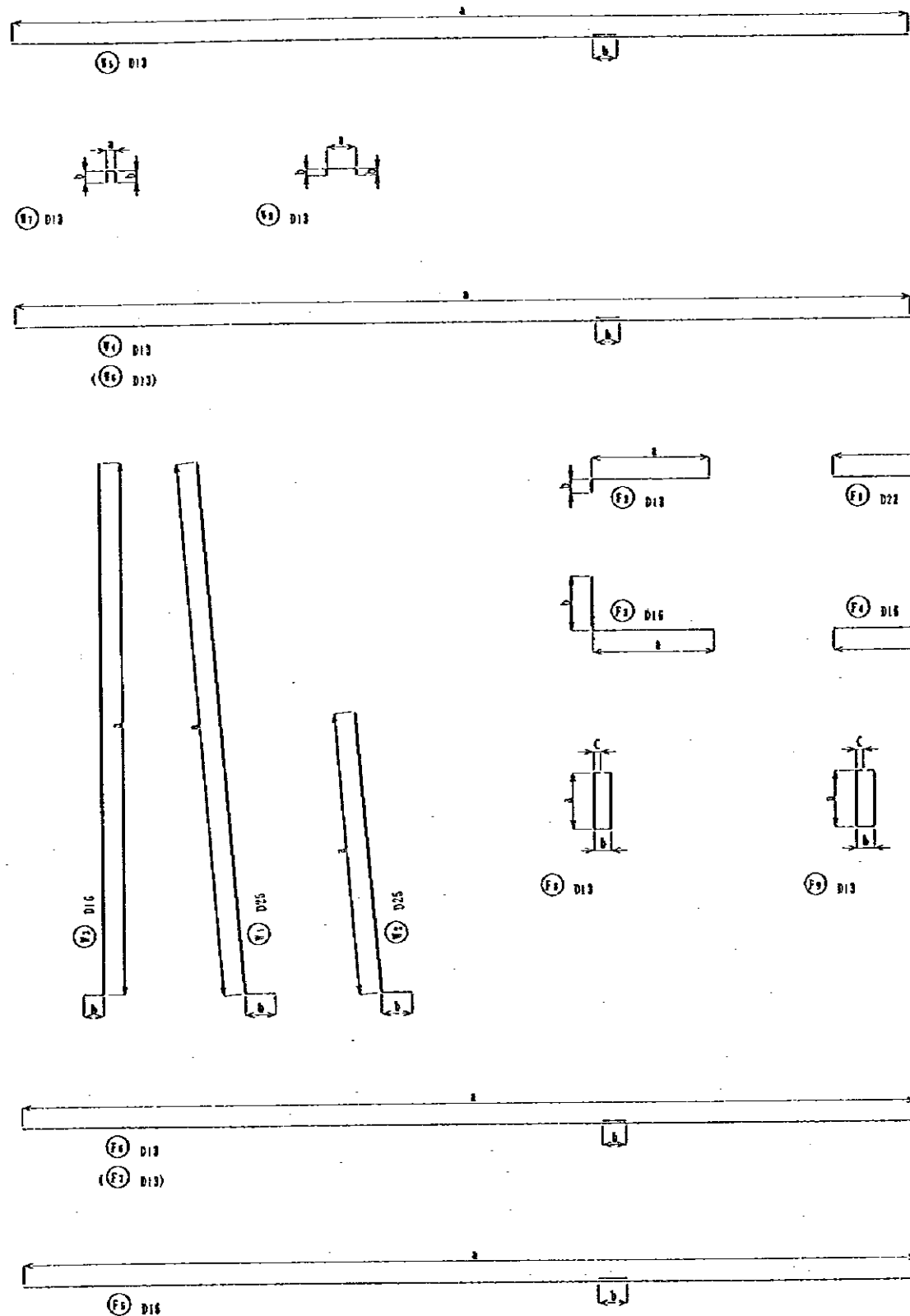
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FURUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

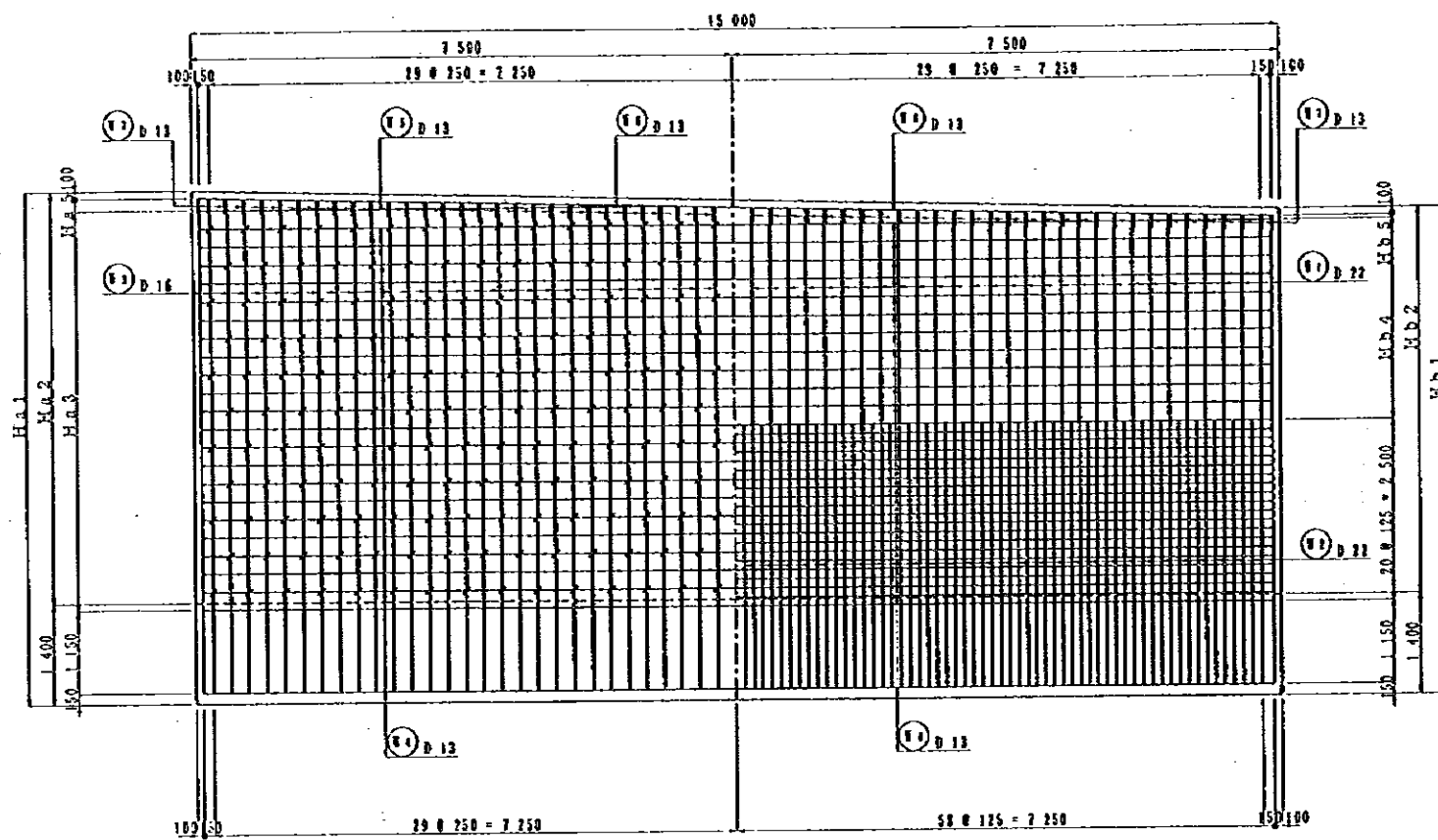
TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (S)

DATE : DWG NO. W-26

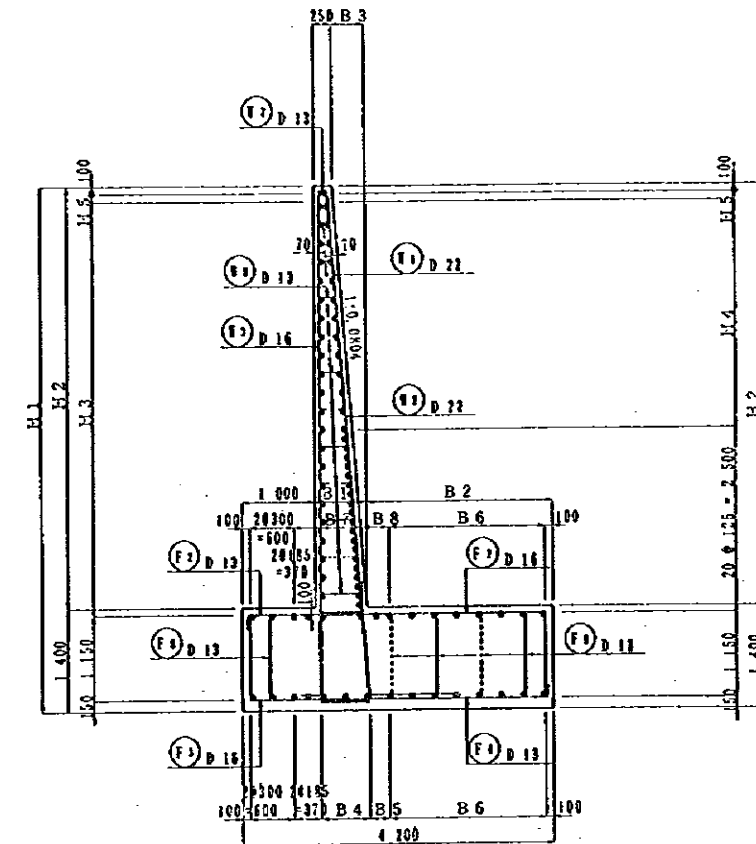


REF. NO.	φ (mm)	LENGTH (mm)	a	b	c
T 4					
W 1	D 25	8 050	7 838~7 508	375	---
2	"	4 540	4 164	375	---
3	D 16	7 850	7 811~7 460	240	---
4	D 13	15 190	14 800	390	---
5	"	7 300	7 296	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	650	658~228	111	---
F 1	D 22	5 170	4 017	1 150	---
2	D 13	2 340	2 143	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 880	1 182	285	111
T 5					
W 1	D 25	7 270	7 006~7 174	375	---
2	"	4 540	4 164	375	---
3	D 16	7 560	7 430~7 149	240	---
4	D 13	15 190	14 800	390	---
5	"	7 480	7 477	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	650	659~200	111	---
F 1	D 22	5 200	4 048	1 150	---
2	D 13	2 320	2 116	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 850	1 182	285	111
T 6					
W 1	D 25	7 370	7 174~6 798	375	---
2	"	4 540	4 164	375	---
3	D 16	7 210	7 349~6 775	240	---
4	D 13	15 190	14 800	390	---
5	"	9 950	9 987	---	---
6	"	15 200	14 805	390	---
7	"	500	110	195	---
8	"	650	631~214	111	---
F 1	D 22	5 230	4 072	1 150	---
2	D 13	2 290	2 088	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 880	1 182	285	111

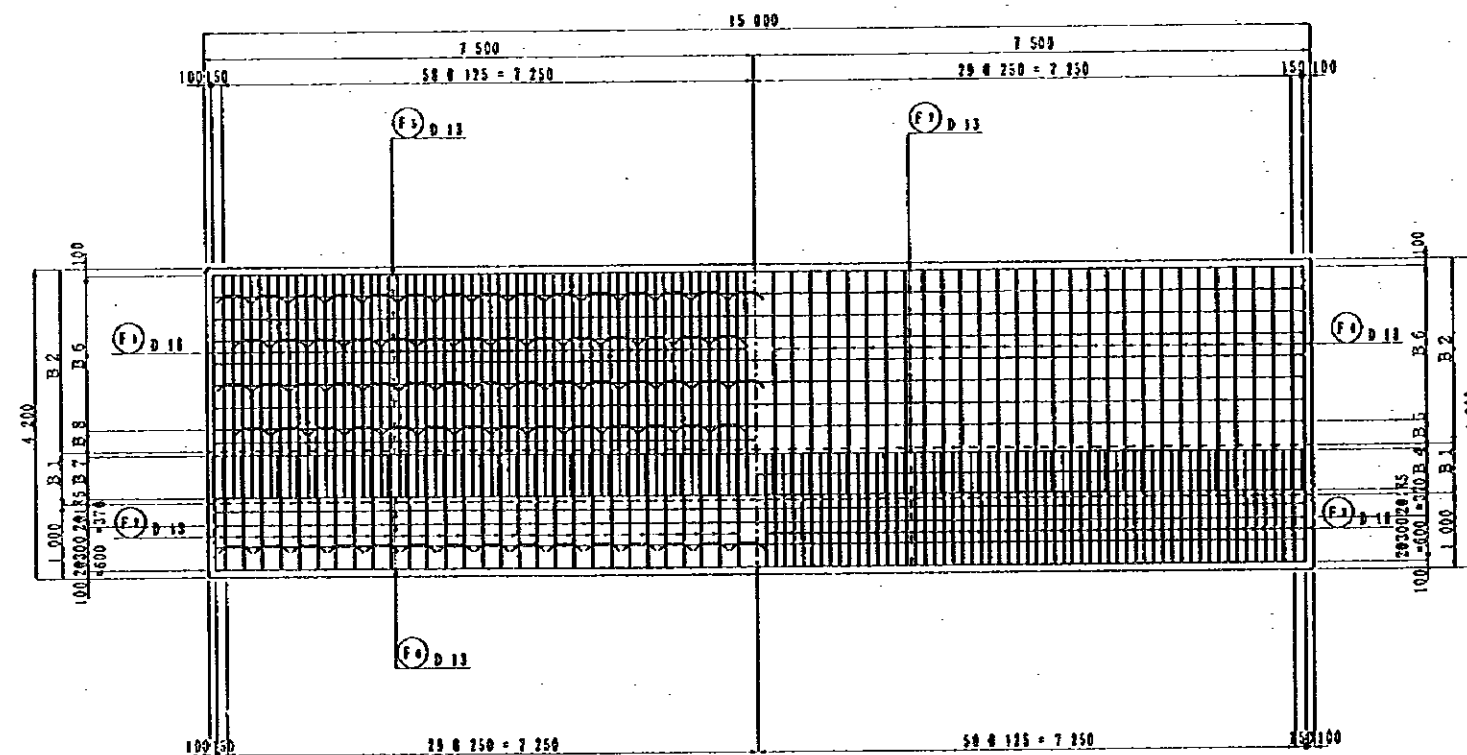
REF. NO.	φ (mm)	LENGTH (mm)	a	b	c
T 3					
W 1	D 25	8 070	7 790~7 438	375	---
2	"	4 540	4 164	375	---
3	D 16	7 860	7 763~7 412	240	---
4	D 13	15 190	14 800	390	---
5	"	5 830	5 825	---	---
6	"	15 200	14 803	390	---
7	"	500	110	195	---
8	"	650	662~224	111	---
F 1	D 22	5 160	4 021	1 150	---
2	D 13	2 340	2 139	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 182	285	111
T 4					
W 1	D 25	7 210	7 498~7 159	375	---
2	"	4 540	4 164	375	---
3	D 16	7 550	7 472~7 134	240	---
4	D 13	15 190	14 800	390	---
5	"	10 920	7 145~14 290	390	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	650	658~199	111	---
F 1	D 22	5 200	4 045	1 150	---
2	D 13	2 310	2 115	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 850	1 178	279	111
9	"	2 850	1 182	285	111
T 5					
W 1	D 25	7 370	7 158~6 822	375	---
2	"	4 540	4 164	375	---
3	D 16	7 210	7 134~6 758	240	---
4	D 13	15 190	14 800	390	---
5	"	10 500	10 451	---	---
6	"	15 200	14 804	390	---
7	"	500	110	195	---
8	"	650	630~213	111	---
F 1	D 22	5 230	4 073	1 150	---
2	D 13	2 290	2 087	195	---
3	D 16	3 100	1 950	1 150	---
4	"	4 270	4 030	240	---
5	"	15 280	14 800	480	---
6	D 13	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 880	1 182	285	111



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FUKUYAMA CONSULTANTS INTERNATIONAL

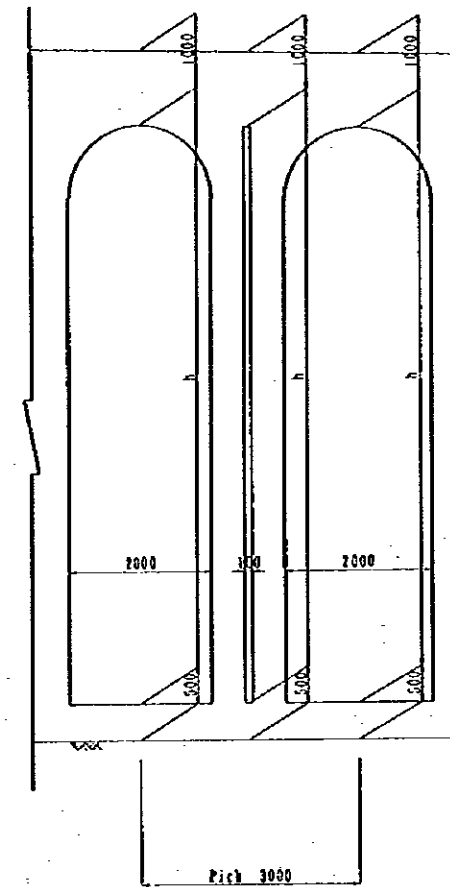
CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

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

TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (7)

DATE : _____ DWG NO. W-28

A I L I N E	T-9				T-8				T-7			
	a - a		b - b		a - a		b - b		a - a		b - b	
	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb
	Ha1	5 811	Hb1	6 231	Ha1	6 231	Hb1	6 650	Ha1	6 650	Hb1	7 025
	Ha2	4 411	Hb2	4 831	Ha2	4 831	Hb2	5 250	Ha2	5 250	Hb2	5 625
	Ha3	17@250 = 4 250	Hb3	18@250 = 4 500	Ha3	19@250 = 4 750	Hb3	21@250 = 5 250	Ha3	21@250 = 5 250	Hb3	22@250 = 5 500
	Ha4	7@250 = 1 750	Hb4	8@250 = 2 000	Ha4	9@250 = 2 250	Hb4	11@250 = 2 750	Ha4	11@250 = 2 750	Hb4	12@250 = 3 000
	Ha5	161	Hb5	2@165.5 = 331	Ha5	81	Hb5	0	Ha5	0	Hb5	125
	Ba1	604	Bb1	638	Ba1	638	Bb1	672	Ba1	672	Bb1	702
	Ba2	2 596	Bb2	2 562	Ba2	2 562	Bb2	2 528	Ba2	2 528	Bb2	2 498
	Ba3	354	Bb3	388	Ba3	388	Bb3	422	Ba3	422	Bb3	452
	Ba4	2@282.5 = 565	Bb4	2@299.5 = 599	Ba4	2@299.5 = 599	Bb4	2@316 = 632	Ba4	2@316 = 632	Bb4	2@331 = 662
	Ba5	2@182.5 = 365	Bb5	2@165.5 = 331	Ba5	2@165.5 = 331	Bb5	2@149 = 298	Ba5	298	Bb5	268
	Ba6	7@300 = 2 100	Bb6	7@300 = 2 100	Ba6	7@300 = 2 100	Bb6	7@300 = 2 100	Ba6	7@300 = 2 100	Bb6	7@300 = 2 100
	Ba7	472	Bb7	506	Ba7	506	Bb7	540	Ba7	540	Bb7	570
	Ba8	2@229 = 458	Bb8	2@212 = 424	Ba8	2@212 = 424	Bb8	2@195 = 390	Ba8	2@195 = 390	Bb8	2@180 = 360
B I L I N E	T-8				T-7				T-6			
	a - a		b - b		a - a		b - b		a - a		b - b	
	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb	Ha	Hb
	Ha1	5 857	Hb1	6 284	Ha1	6 284	Hb1	6 666	Ha1	6 666	Hb1	7 048
	Ha2	4 457	Hb2	4 884	Ha2	4 884	Hb2	5 266	Ha2	5 266	Hb2	5 648
	Ha3	17@250 = 4 250	Hb3	19@250 = 4 750	Ha3	19@250 = 4 750	Hb3	20@250 = 5 000	Ha3	21@250 = 5 250	Hb3	22@250 = 5 500
	Ha4	7@250 = 1 750	Hb4	9@250 = 2 250	Ha4	9@250 = 2 250	Hb4	10@250 = 2 500	Ha4	11@250 = 2 750	Hb4	12@250 = 3 000
	Ha5	207	Hb5	134	Ha5	134	Hb5	2@133 = 266	Ha5	16	Hb5	148
	Ba1	608	Bb1	642	Ba1	642	Bb1	673	Ba1	673	Bb1	704
	Ba2	2 592	Bb2	2 558	Ba2	2 558	Bb2	2 527	Ba2	2 527	Bb2	2 496
	Ba3	358	Bb3	392	Ba3	392	Bb3	423	Ba3	423	Bb3	454
	Ba4	2@284.5 = 569	Bb4	2@301.5 = 603	Ba4	2@301.5 = 603	Bb4	2@327 = 654	Ba4	2@327 = 654	Bb4	2@332 = 664
	Ba5	361	Bb5	327	Ba5	327	Bb5	276	Ba5	276	Bb5	266
	Ba6	7@300 = 2 100	Bb6	7@300 = 2 100	Ba6	7@300 = 2 100	Bb6	7@300 = 2 100	Ba6	7@300 = 2 100	Bb6	7@300 = 2 100
	Ba7	476	Bb7	510	Ba7	510	Bb7	541	Ba7	541	Bb7	572
	Ba8	2@227 = 454	Bb8	2@210 = 420	Ba8	2@210 = 420	Bb8	2@194.5 = 389	Ba8	2@194.5 = 389	Bb8	2@179 = 358



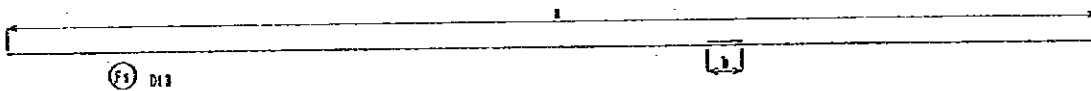
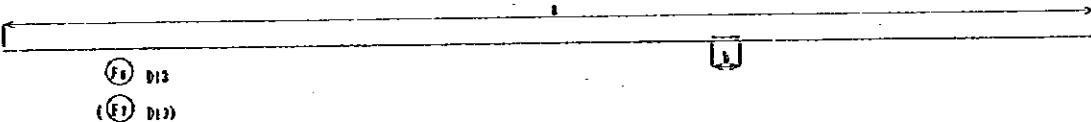
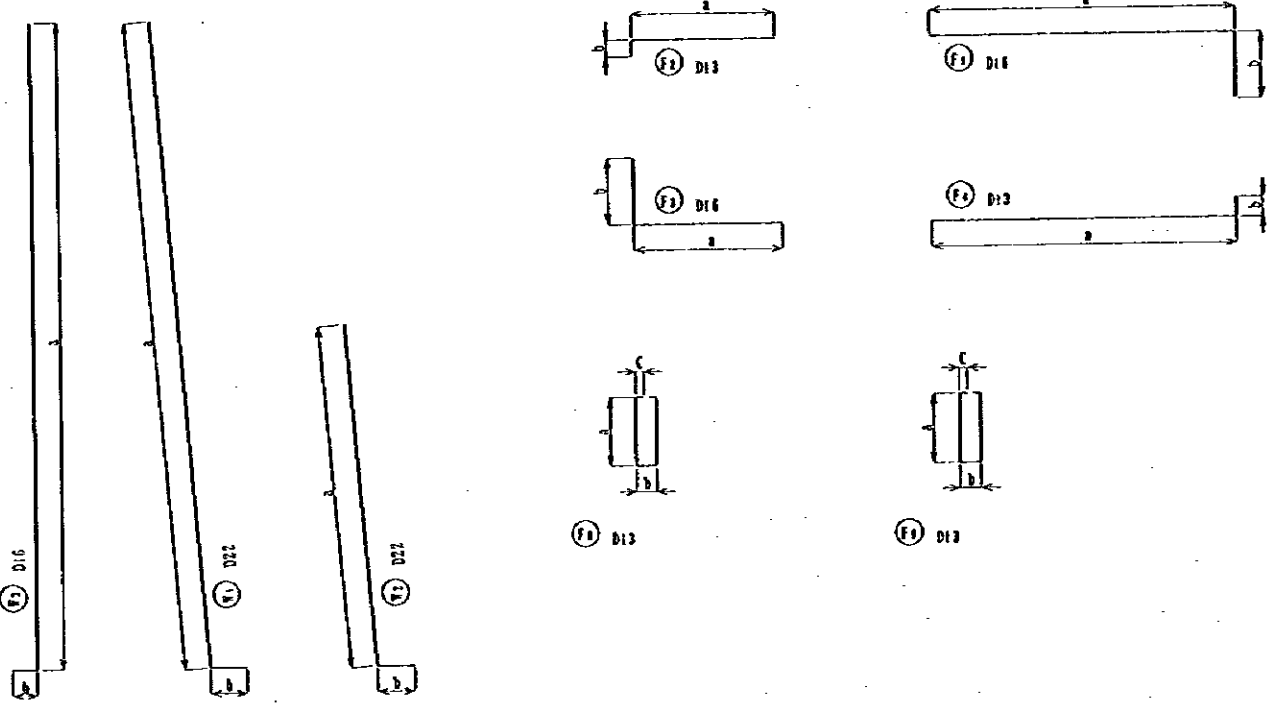
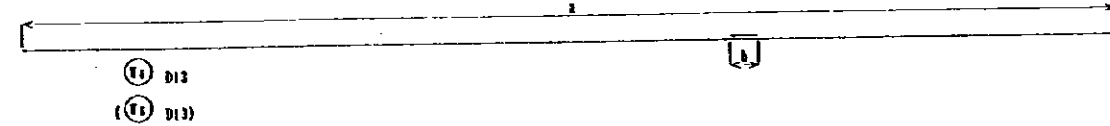
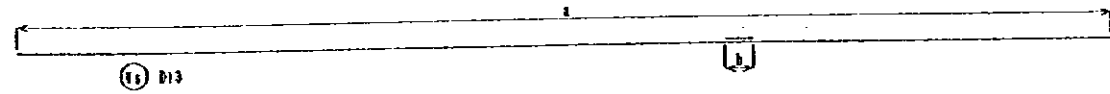
Sill Shape in Front of Wall
(thickness t=30 mm)

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (8)
DATE :
DWG NO. W-29



REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 7					
V 1	D 22	6 940	6 297~6 421	330	---
2	"	4 000	3 662	330	---
3	D 16	6 630	6 275~6 400	240	---
4	D 13	15 190	14 800	390	---
5	"	5 000	5 000	---	---
6	"	15 200	14 805	390	---
7	"	500	110	195	---
8	"	630	592~222	111	---
F 1	D 16	4 030	2 940	1 150	---
2	D 13	1 740	1 540	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 8					
V 1	D 22	6 550	6 421~6 000	330	---
2	"	4 000	3 662	330	---
3	D 16	6 440	6 415~5 981	240	---
4	D 13	15 190	14 800	390	---
5	"	8 950	8 950	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	600	553~190	111	---
F 1	D 16	4 120	2 970	1 150	---
2	D 13	1 710	1 510	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 9					
V 1	D 22	6 120	6 004~5 579	330	---
2	"	4 000	3 662	330	---
3	D 16	6 020	5 981~5 561	240	---
4	D 13	15 190	14 800	390	---
5	"	8 870	5 911~11 821	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	580	518~197	111	---
F 1	D 16	4 160	3 004	1 150	---
2	D 13	1 680	1 476	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 6					
V 1	D 22	6 960	6 820~6 437	330	---
2	"	4 000	3 662	330	---
3	D 16	6 850	6 798~6 416	240	---
4	D 13	15 190	14 800	390	---
5	"	5 870	5 812	---	---
6	"	15 200	14 805	390	---
7	"	500	110	195	---
8	"	630	584~222	111	---
F 1	D 16	4 030	2 938	1 150	---
2	D 13	1 740	1 542	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 7					
V 1	D 22	6 580	6 437~6 053	330	---
2	"	4 000	3 662	330	---
3	D 16	6 470	6 415~6 034	240	---
4	D 13	15 190	14 800	390	---
5	"	7 840	5 223~10 445	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	600	553~190	111	---
F 1	D 16	4 120	2 969	1 150	---
2	D 13	1 710	1 511	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 8					
V 1	D 22	6 170	6 053~5 625	330	---
2	"	4 000	3 662	330	---
3	D 16	6 070	6 034~5 607	240	---
4	D 13	15 190	14 800	390	---
5	"	9 300	4 707~13 485	390	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	590	522~201	111	---
F 1	D 16	4 150	3 000	1 150	---
2	D 13	1 690	1 490	195	---
3	D 16	2 600	1 450	1 150	---
4	D 13	3 230	3 030	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

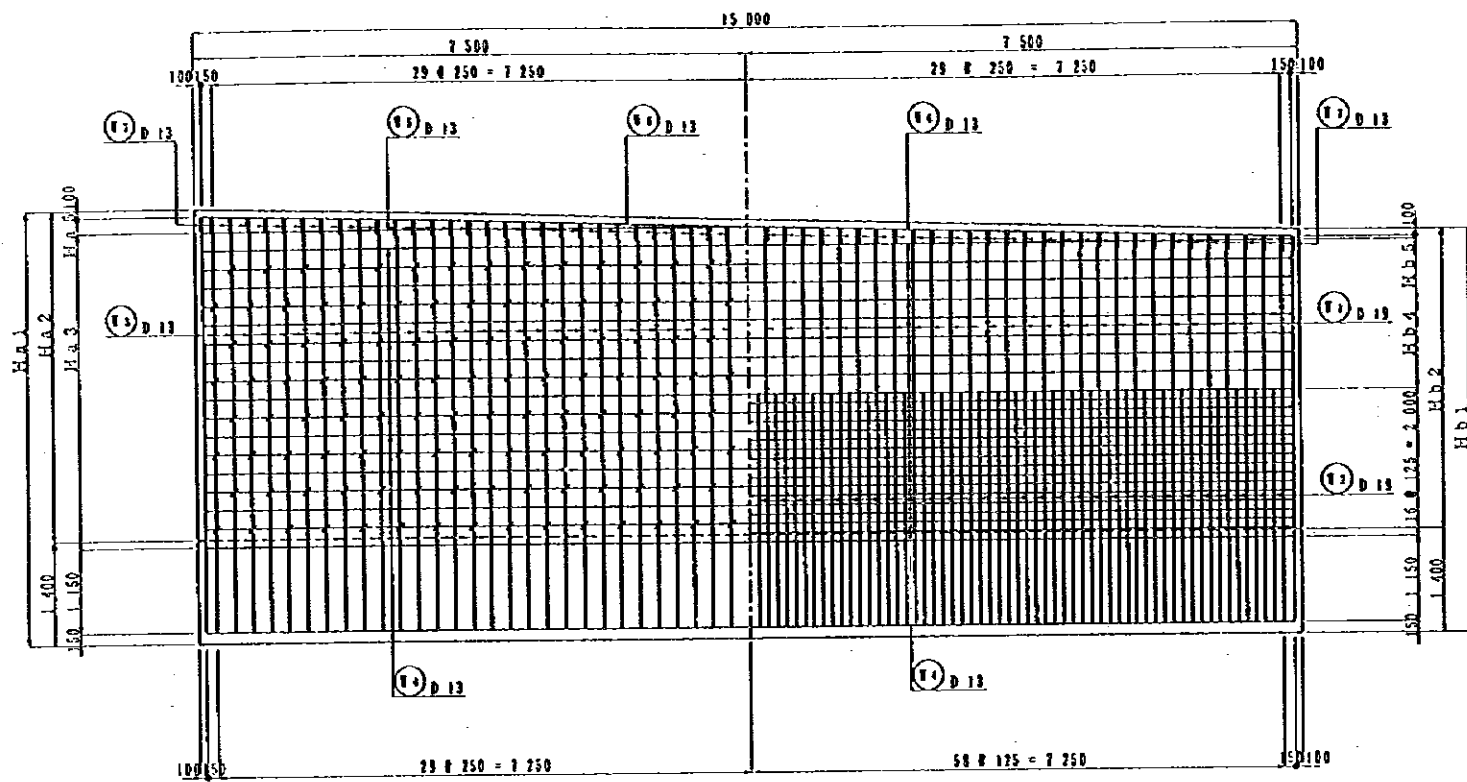
JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FURUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS

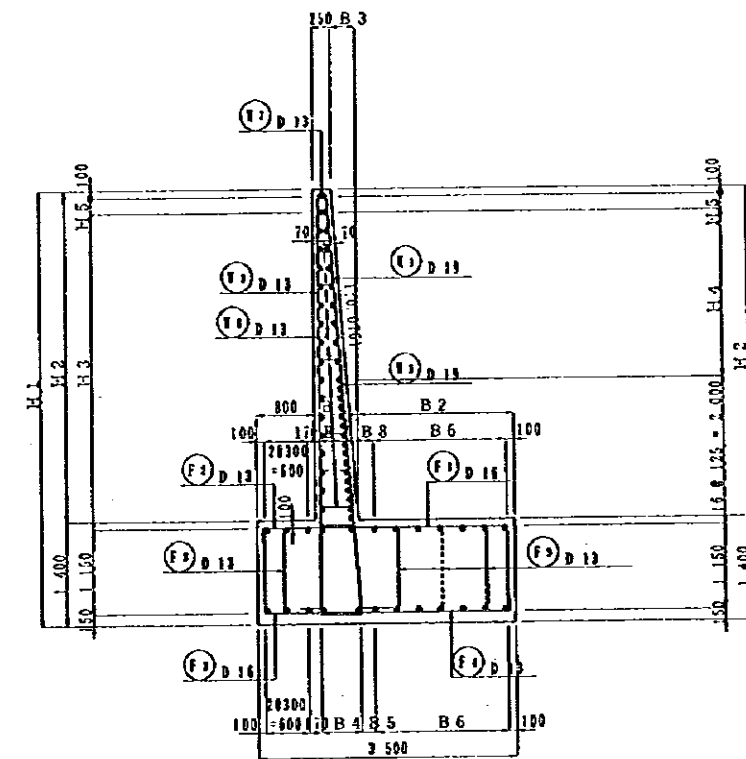
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY

TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (9)

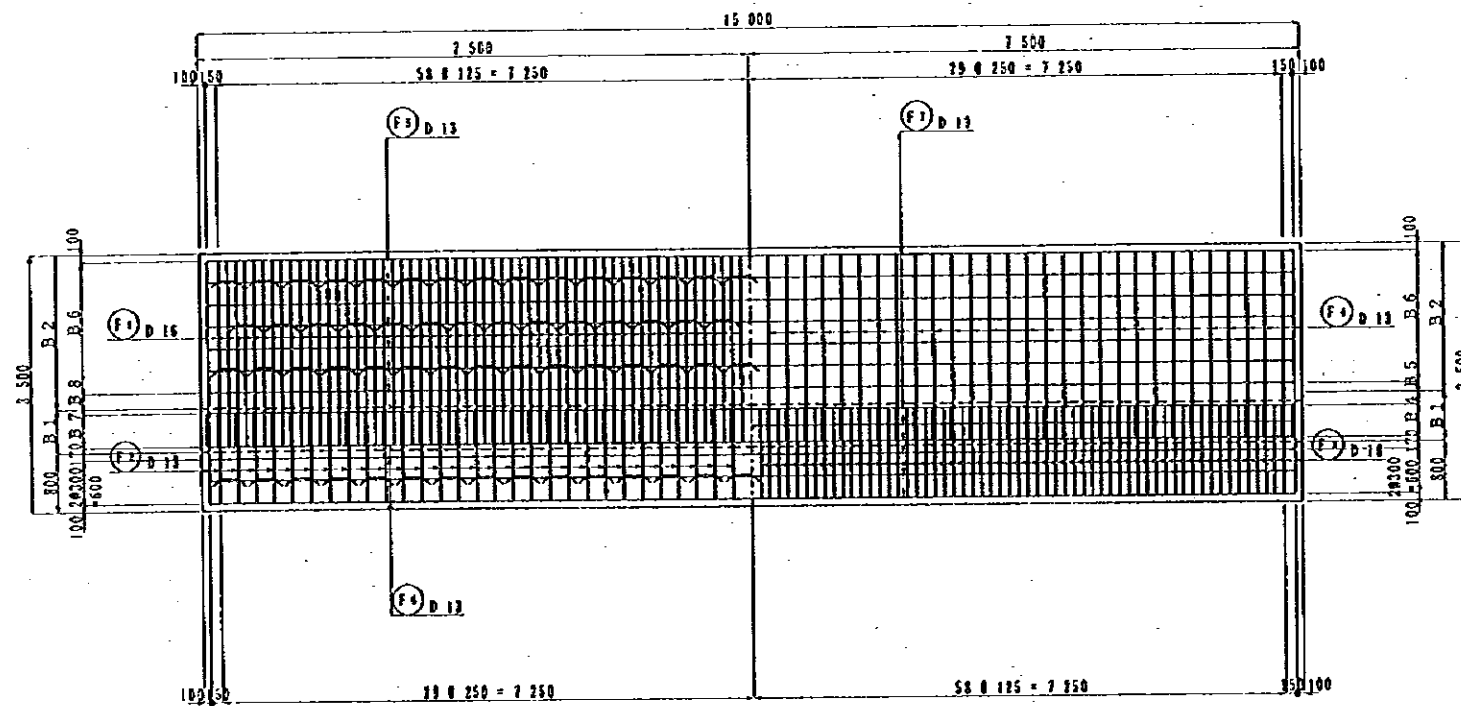
DATE : DWG NO. W-30



SIDE VIEW
S=1/100



SECTION
S=1/100



PLAN
S=1/100

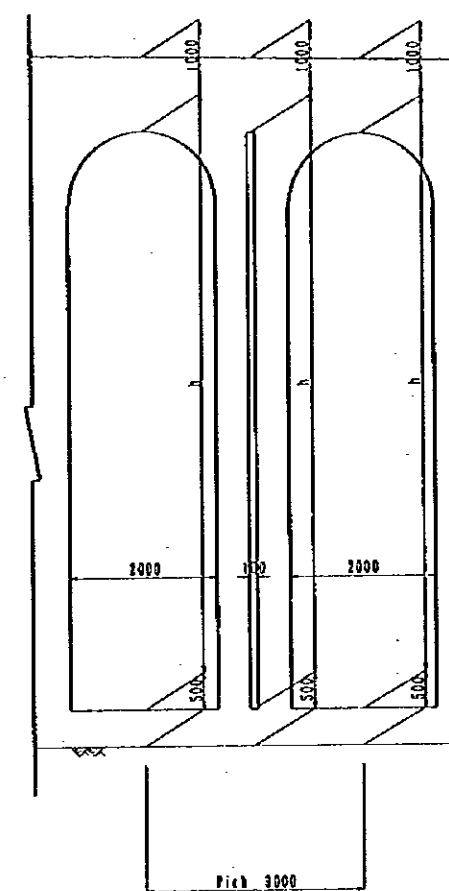
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FLKLYANA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (10)
DATE : DTC NO. W-31

A L I N E	T-11		T-10		T-9	
	a - a	b - b	a - a	b - b	a - a	b - b
	Ha1	4 971	Hb1 5 391	Ha1 5 391	Hb1 5 811	Ha1
Ha2	3 571	Hb2 3 991	Ha2 3 991	Hb2 4 411	Ha2	Hb2
Ha3	14@250 = 3 500	Hb3 15@250 = 3 750	Ha3 15@250 = 3 750	Hb3 17@250 = 4 250	Ha3	Hb3
Ha4	6@250 = 1 500	Hb4 7@250 = 1 750	Ha4 7@250 = 1 750	Hb4 9@250 = 2 250	Ha4	Hb4
Ha5	71	Hb5 241	Ha5 241	Hb5 161	Ha5	Hb5
Ba1	522	Bb1 554	Ba1 554	Bb1 586	Ba1	Bb1
Ba2	2 178	Bb2 2 146	Ba2 2 146	Bb2 2 114	Ba2	Bb2
Ba3	272	Bb3 304	Ba3 304	Bb3 336	Ba3	Bb3
Ba4	2@238.5 = 477	Bb4 2@254.5 = 509	Ba4 2@254.5 = 509	Bb4 2@270.5 = 541	Ba4	Bb4
Ba5	253	Bb5 221	Ba5 221	Bb5 189	Ba5	Bb5
Ba6	6@300 = 1 800	Bb6 6@300 = 1 800	Ba6 6@300 = 1 800	Bb6 6@300 = 1 800	Ba6	Bb6
Ba7	390	Bb7 422	Ba7 422	Bb7 454	Ba7	Bb7
Ba8	2@170 = 340	Bb8 2@154 = 308	Ba8 2@154 = 308	Bb8 2@138 = 276	Ba8	Bb8
B L I N E	T-11		T-10		T-9	
	a - a	b - b	a - a	b - b	a - a	b - b
	Ha1	4 576	Hb1 5 003	Ha1 5 003	Hb1 5 429	Ha1 5 429
Ha2	3 176	Hb2 3 603	Ha2 3 603	Hb2 4 029	Ha2 4 029	Hb2 4 457
Ha3	12@250 = 3 000	Hb3 14@250 = 3 500	Ha3 14@250 = 3 500	Hb3 15@250 = 3 750	Ha3 16@250 = 4 000	Hb3 17@250 = 4 250
Ha4	4@250 = 1 000	Hb4 6@250 = 1 500	Ha4 6@250 = 1 500	Hb4 7@250 = 1 750	Ha4 8@250 = 2 000	Hb4 9@250 = 2 250
Ha5	176	Hb5 103	Ha5 103	Hb5 2@139.5 = 279	Ha5 29	Hb5 207
Ba1	492	Bb1 524	Ba1 524	Bb1 557	Ba1 557	Bb1 589
Ba2	2 208	Bb2 2 176	Ba2 2 176	Bb2 2 143	Ba2 2 143	Bb2 2 111
Ba3	242	Bb3 274	Ba3 274	Bb3 307	Ba3 307	Bb3 339
Ba4	2@223.5 = 447	Bb4 2@240 = 480	Ba4 2@240 = 480	Bb4 2@256 = 512	Ba4 2@256 = 512	Bb4 2@272.5 = 545
Ba5	283	Bb5 250	Ba5 250	Bb5 218	Ba5 218	Bb5 185
Ba6	6@300 = 1 800	Bb6 6@300 = 1 800	Ba6 6@300 = 1 800	Bb6 6@300 = 1 800	Ba6 6@300 = 1 800	Bb6 6@300 = 1 800
Ba7	360	Bb7 392	Ba7 392	Bb7 425	Ba7 425	Bb7 457
Ba8	2@185 = 370	Bb8 2@169 = 338	Ba8 2@169 = 338	Bb8 2@152.5 = 305	Ba8 2@152.5 = 305	Bb8 2@136.5 = 273

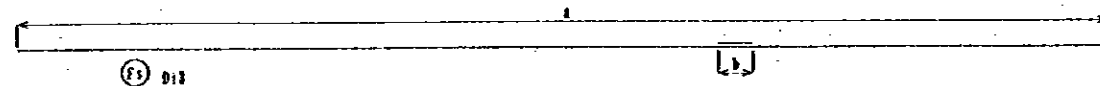
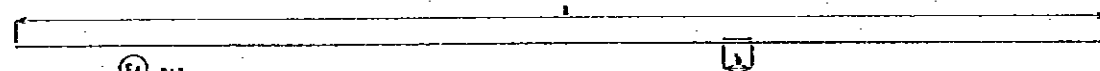
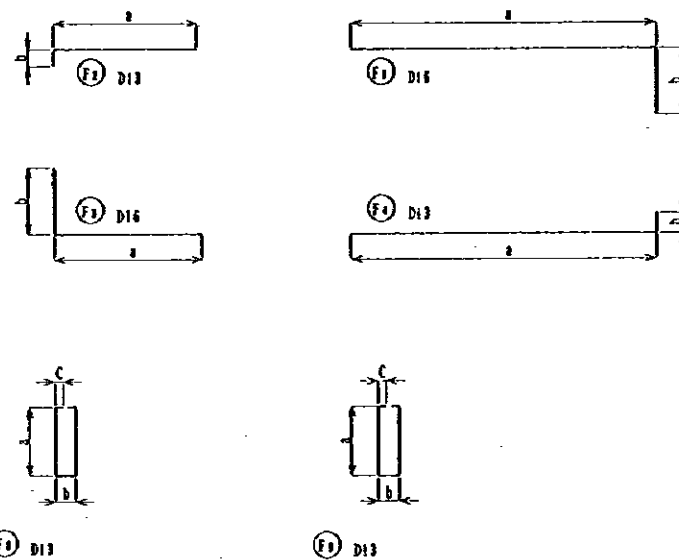
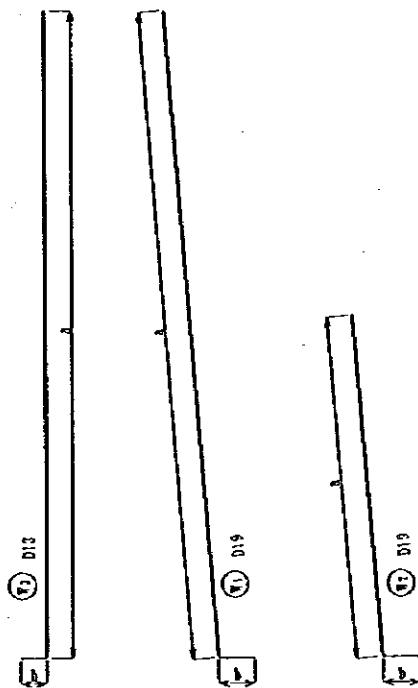
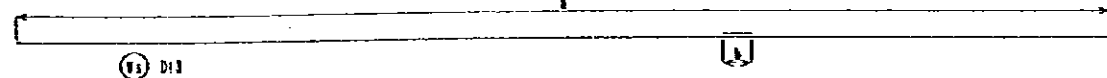


Slit Shape in Front of Wall
(Thickness t=30 mm)

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (11)
DATE : DTC NO. W-32



REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 10					
1	D 13	5 860	5 577~5 156	285	---
2	"	3 450	3 159	285	---
3	D 13	5 550	5 541~5 141	195	---
4	"	15 190	14 800	390	---
5	"	19 410	5 256~14 879	390	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	550	464~197	111	---
F 1	D 16	3 710	2 556	1 150	---
2	D 13	1 420	1 224	195	---
3	D 16	2 400	1 250	1 150	---
4	D 13	2 730	2 530	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111
T 11					
1	D 13	5 240	5 156~4 735	285	---
2	"	3 450	3 159	285	---
3	D 12	5 150	5 141~4 721	195	---
4	"	15 190	14 800	390	---
5	"	8 610	8 607	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	540	432~203	111	---
F 1	D 16	3 740	2 585	1 150	---
2	D 13	1 390	1 192	195	---
3	D 16	2 400	1 250	1 150	---
4	D 13	2 730	2 530	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

REIN. NO.	Ø (mm)	LENGTH (mm)	a	b	c
T 9					
1	D 13	5 700	5 423~5 194	285	---
2	"	3 450	3 159	285	---
3	D 13	5 590	5 407~5 179	195	---
4	"	15 190	14 800	390	---
5	"	7 260	7 255	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	550	447~200	111	---
F 1	D 16	3 710	2 553	1 150	---
2	D 13	1 430	1 227	195	---
3	D 16	2 400	1 250	1 150	---
4	D 13	2 730	2 530	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111
T 10					
1	D 13	5 270	5 194~4 767	285	---
2	"	3 450	3 159	285	---
3	D 13	5 170	5 179~4 759	195	---
4	"	15 190	14 800	390	---
5	"	7 370	4 812~9 824	---	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	550	435~206	111	---
F 1	D 16	3 740	2 585	1 150	---
2	D 13	1 390	1 195	195	---
3	D 16	2 400	1 250	1 150	---
4	D 13	2 730	2 530	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111
T 11					
1	D 13	4 840	4 767~4 339	285	---
2	"	3 450	3 159	285	---
3	D 13	4 740	4 758~4 326	195	---
4	"	15 190	14 800	390	---
5	"	8 210	8 618~12 400	390	---
6	"	15 200	14 806	390	---
7	"	500	110	195	---
8	"	530	402~211	111	---
F 1	D 16	3 270	2 610	1 150	---
2	D 13	1 360	1 162	195	---
3	D 16	2 400	1 250	1 150	---
4	D 13	2 730	2 530	195	---
5	"	15 190	14 800	390	---
6	"	15 190	14 800	390	---
7	"	15 190	14 800	390	---
8	"	2 860	1 178	279	111
9	"	2 860	1 178	279	111

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (12)

DATE : DWG NO. W-33

A-LINE

REIN NO.	Ø (mm)	LENGTH (mm)	VOLUMICAL WEIGHT	NO. OF BARS	U WEIGHT	WEIGHT	REMARKS
T 1							
1	D 25	3 070	5.059	61	45.432	2 783.6	L
2	"	5 110	"	58	25.851	1 499.4	L
3	D 19	8 840	2.235	61	18.757	1 205.2	J
4	D 13	15 190	0.994	66	15.099	1 056.5	---
5	"	10 880	"	4	10.815	43.3	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	700	"	413	0.696	287.4	"
F 1	D 25	5 170	3.973	119	20.548	2 444.3	L
2	D 13	2 430	0.994	61	2.415	147.3	L
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	L
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.099	90.6	---
7	"	15 190	"	19	15.099	286.9	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						11759.1	

T 2							
1	D 25	8 710	5.059	61	44.864	2 687.9	L
2	"	5 110	"	58	25.851	1 499.4	L
3	D 19	8 630	2.235	61	19.065	1 163.0	J
4	D 13	15 190	0.994	66	15.099	1 026.1	---
5	"	12 610	"	2	12.534	25.1	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	700	"	413	0.696	287.4	"
F 1	D 25	5 200	3.973	119	20.688	2 458.5	L
2	D 13	2 410	0.994	61	2.396	146.2	L
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	L
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.099	90.6	---
7	"	15 190	"	19	15.099	286.9	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						11597.2	

T 3							
1	D 25	8 420	5.059	61	42.537	2 598.4	L
2	"	5 110	"	58	25.851	1 499.4	L
3	D 19	8 240	2.235	61	18.416	1 123.4	J
4	D 13	15 190	0.994	66	15.099	991.5	---
5	"	10 340	"	2	10.328	20.6	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	700	"	384	0.696	267.3	"
F 1	D 25	5 220	3.973	119	20.739	2 467.9	L
2	D 13	2 390	0.994	61	2.386	144.3	L
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	L
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.099	90.6	---
7	"	15 190	"	19	15.099	286.9	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						11420.8	
						D 25	12568.1
						D 25	2370.7
						D 19	3491.6
						D 16	3931.3
						D 13	2518.4
						TOTAL WEIGHT	34777.1

B-LINE

REIN NO.	Ø (mm)	LENGTH (mm)	VOLUMICAL WEIGHT	NO. OF BARS	U WEIGHT	WEIGHT	REMARKS
T 1							
1	D 25	8 690	5.059	61	43.963	2 681.7	L
2	"	5 110	"	58	25.851	1 499.4	L
3	D 19	8 510	2.235	61	19.020	1 160.2	J
4	D 13	15 190	0.994	66	15.099	1 026.2	---
5	"	10 200	"	2	10.636	21.3	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	700	"	413	0.696	287.4	"
F 1	D 25	5 200	3.973	119	20.688	2 458.5	L
2	D 13	2 410	0.994	61	2.396	146.2	L
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	L
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.099	90.6	---
7	"	15 190	"	19	15.099	286.9	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						11584.4	

T 2							
1	D 25	8 380	5.059	61	42.394	2 566.0	L
2	"	5 110	"	58	25.851	1 499.4	L
3	D 19	8 200	2.235	61	18.327	1 147.9	J
4	D 13	15 190	0.994	66	15.099	991.5	---
5	"	7 920	"	2	7.872	15.7	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	690	"	384	0.696	267.4	"
F 1	D 25	5 230	3.973	119	20.779	2 471.7	L
2	D 13	2 380	0.994	61	2.386	144.3	L
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	L
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.099	90.6	---
7	"	15 190	"	19	15.099	286.9	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						11398.9	

		D 25	8266.5
		D 25	4991.2
		D 19	2278.1
		D 16	2570.0
		D 13	4937.5
		TOTAL WEIGHT	22983.3

NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

JICA STUDY TEAM
PACIFIC CONSULTANTS INTERNATIONAL
FURUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (13)
DATE :
DWG NO. W-34

A-LINE

REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NLWS	L WEIGHT	WEIGHT	REMARKS
T 4							
1	D 25	8 050	3.973	61	31.983	1 951.0	L
2	"	4 540	"	58	18.037	1 046.1	L
3	D 16	7 550	1.552	61	11.245	746.9	J
4	D 13	15 190	0.994	62	15.058	936.1	---
5	"	7 300	"	2	2.256	11.5	---
6	"	15 200	"	2	15.189	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	650	"	354	0.676	239.3	"
F 1	D 22	5 170	3.042	119	15.227	1 071.5	J
2	D 13	2 340	0.994	61	2.326	141.9	---
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	J
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.059	90.6	---
7	"	15 190	"	19	15.059	286.9	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						9250.3	
T 5							
1	D 25	7 720	3.973	61	30.472	1 821.0	L
2	"	4 540	"	58	18.037	1 046.1	L
3	D 16	7 540	1.552	61	11.733	715.7	J
4	D 13	15 190	0.994	60	15.059	905.9	---
5	"	7 480	"	2	7.435	14.9	---
6	"	15 200	"	2	15.189	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	650	"	354	0.656	232.2	"
F 1	D 22	5 200	3.042	119	15.818	1 082.3	J
2	D 13	2 320	0.994	61	2.306	140.7	---
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	J
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.059	90.6	---
7	"	15 190	"	20	15.059	302.0	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						9126.9	
T 6							
1	D 25	7 370	3.973	61	29.281	1 786.1	L
2	"	4 540	"	58	18.037	1 046.1	L
3	D 16	7 210	1.552	61	11.190	682.6	J
4	D 13	15 190	0.994	56	15.059	845.5	---
5	"	9 950	"	2	9.920	19.9	---
6	"	15 200	"	2	15.189	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	650	"	325	0.648	210.0	"
F 1	D 22	5 230	3.042	119	15.910	1 093.2	J
2	D 13	2 290	0.994	61	2.276	138.8	---
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	J
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.059	90.6	---
7	"	15 190	"	20	15.059	302.0	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						8940.4	
						D 25	8746.4
						D 22	5647.1
						D 16	6000.2
						D 13	6923.9
						TOTAL WEIGHT	27317.8

B-LINE

REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NLWS	L WEIGHT	WEIGHT	REMARKS
T 3							
1	D 25	8 020	3.973	61	31.863	1 943.6	L
2	"	4 540	"	58	18.037	1 046.1	L
3	D 16	7 840	1.552	61	12.193	744.1	J
4	D 13	15 190	0.994	62	15.059	936.1	---
5	"	5 820	"	2	5.755	11.6	---
6	"	15 260	"	2	15.189	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	650	"	354	0.676	239.3	"
F 1	D 22	5 180	3.042	119	15.258	1 075.2	J
2	D 13	2 340	0.994	61	2.326	141.9	---
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	J
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.059	90.6	---
7	"	15 190	"	19	15.059	286.9	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						9240.9	
T 4							
1	D 25	7 710	3.973	61	30.432	1 808.6	L
2	"	4 540	"	58	18.037	1 046.1	L
3	D 16	7 550	1.552	61	11.718	714.8	J
4	D 13	15 190	0.994	58	15.059	875.7	---
5	"	10 920	"	4	10.854	43.4	---
6	"	15 200	"	2	15.189	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	650	"	354	0.656	232.2	"
F 1	D 22	5 200	3.042	119	15.818	1 082.3	J
2	D 13	2 310	0.994	61	2.296	140.1	---
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	J
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.059	90.6	---
7	"	15 190	"	20	15.059	302.0	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						9121.3	
T 5							
1	D 25	7 370	3.973	61	29.281	1 786.1	L
2	"	4 540	"	58	18.037	1 046.1	L
3	D 16	7 210	1.552	61	11.190	682.6	J
4	D 13	15 190	0.994	56	15.059	845.5	---
5	"	10 500	"	2	10.437	20.9	---
6	"	15 200	"	2	15.189	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	650	"	325	0.648	210.0	"
F 1	D 22	5 230	3.042	119	15.910	1 093.2	J
2	D 13	2 280	0.994	61	2.276	138.8	---
3	D 16	3 100	1.552	119	4.811	572.5	L
4	"	4 270	"	61	6.627	404.2	J
5	"	15 280	"	13	23.715	308.3	---
6	D 13	15 190	0.994	6	15.059	90.6	---
7	"	15 190	"	20	15.059	302.0	---
8	"	2 860	"	58	2.843	164.9	□
9	"	2 880	"	145	2.863	415.1	□
						8941.4	
						D 25	8738.6
						D 22	5650.8
						D 16	5996.5
						D 13	6919.7
						TOTAL WEIGHT	27309.6

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/O ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (14)
DATE : DWG NO. W-35

A-LINE

BEIN NO.	φ (mm)	LENGTH (mm)	NOMINAL WEIGHT	NWD	E WEIGHT	WEIGHT	REMARKS
T 7							
1	D 22	6 940	3.042	61	21.111	1 287.8	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 830	1.552	61	10.600	646.6	J
4	D 13	15 150	0.994	52	15.099	785.1	---
5	"	5 000	"	2	4.970	9.9	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.2	"
8	"	600	"	295	0.526	184.7	"
F 1	D 16	4 050	1.552	119	6.345	755.4	---
2	D 13	1 740	0.994	61	1.700	103.2	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	3 230	0.994	61	3.211	195.9	---
5	"	15 190	"	10	15.099	151.0	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	15	15.099	226.5	---
8	"	2 860	"	29	2.843	82.4	U
9	"	2 860	"	116	2.843	329.8	U
						6022.5	
T 8							
1	D 22	6 550	3.042	61	19.925	1 215.4	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 440	1.552	61	9.995	609.2	J
4	D 13	15 190	0.994	48	15.099	724.8	---
5	"	8 950	"	2	8.896	17.8	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.2	"
8	"	600	"	295	0.526	175.8	"
F 1	D 16	4 120	1.552	119	6.394	780.9	---
2	D 13	1 710	0.994	61	1.700	103.2	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	3 230	0.994	61	3.211	195.9	---
5	"	15 190	"	10	15.099	151.0	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	15	15.099	241.6	---
8	"	2 860	"	29	2.843	82.4	U
9	"	2 860	"	116	2.843	329.8	U
						5930.7	
T 9							
1	D 22	6 120	3.042	61	18.617	1 135.6	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 020	1.552	61	9.343	583.9	J
4	D 13	15 190	0.994	44	15.099	664.4	---
5	"	8 870	"	4	8.817	35.3	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.2	"
8	"	600	"	266	0.527	153.9	"
F 1	D 16	4 160	1.552	119	6.456	768.9	---
2	D 13	1 680	0.994	61	1.670	101.9	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	3 230	0.994	61	3.211	195.9	---
5	"	15 190	"	10	15.099	151.0	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	15	15.099	241.6	---
8	"	2 860	"	29	2.843	82.4	U
9	"	2 860	"	116	2.843	329.8	U
						5751.5	
						D 22	5755.8
						D 16	5551.4
						D 13	6457.4
TOTAL WEIGHT						17764.7	

B-LINE

BEIN NO.	φ (mm)	LENGTH (mm)	NOMINAL WEIGHT	NWD	E WEIGHT	WEIGHT	REMARKS
T 4							
1	D 22	6 960	3.042	61	21.122	1 291.5	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 850	1.552	61	10.631	648.5	J
4	D 13	15 190	0.994	52	15.099	785.1	---
5	"	5 070	"	2	5.785	11.6	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.2	"
8	"	630	"	255	0.626	184.7	"
F 1	D 16	4 030	1.552	119	6.348	755.4	---
2	D 13	1 760	0.994	61	1.730	105.9	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	3 230	0.994	61	3.211	195.9	---
5	"	15 190	"	10	15.099	151.0	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	15	15.099	226.5	---
8	"	2 860	"	29	2.843	82.4	U
9	"	2 860	"	116	2.843	329.8	U
						6022.8	
T 7							
1	D 22	6 580	3.042	61	20.016	1 221.0	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 470	1.552	61	10.041	612.5	J
4	D 13	15 190	0.994	48	15.099	724.8	---
5	"	7 840	"	4	7.793	31.2	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.2	"
8	"	600	"	295	0.526	175.8	"
F 1	D 16	4 120	1.552	119	6.394	780.9	---
2	D 13	1 710	0.994	61	1.700	103.2	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	3 230	0.994	61	3.211	195.9	---
5	"	15 190	"	10	15.099	151.0	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	15	15.099	226.5	---
8	"	2 860	"	29	2.843	82.4	U
9	"	2 860	"	116	2.843	329.8	U
						5937.4	
T 8							
1	D 22	6 170	3.042	61	18.769	1 144.9	L
2	"	4 000	"	58	12.168	705.7	L
3	D 16	6 070	1.552	61	9.421	574.7	J
4	D 13	15 190	0.994	44	15.099	664.4	---
5	"	9 300	"	4	9.244	37.0	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.2	"
8	"	600	"	266	0.524	155.9	"
F 1	D 16	4 150	1.552	119	6.411	766.5	---
2	D 13	1 680	0.994	61	1.670	101.9	---
3	D 16	2 600	1.552	119	4.035	480.2	---
4	D 13	3 230	0.994	61	3.211	195.9	---
5	"	15 190	"	10	15.099	151.0	---
6	"	15 190	"	5	15.099	75.5	---
7	"	15 190	"	15	15.099	226.5	---
8	"	2 860	"	29	2.843	82.4	U
9	"	2 860	"	116	2.843	329.8	U
						5752.8	
						D 22	5774.5
						D 16	5559.1
						D 13	6449.4
TOTAL WEIGHT						17700.8	

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 : R/A-12, SOHAR RE-BAR ARRANGEMENT (15)
DATE : DTC NO. W-36

A - LINE

REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NO.	U WEIGHT	WEIGHT	REMARKS
T 10							
1	D 19	5 640	2.235	61	12.450	771.6	L
2	"	3 450	"	58	7.711	447.2	L
3	D 13	5 550	0.994	61	5.517	326.5	J
4	"	15 190	"	30	15.099	578.8	---
5	"	10 410	"	4	10.348	41.4	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	560	"	236	0.557	131.5	"
F 1	D 16	3 710	1.552	119	5.758	685.2	L
2	D 13	1 470	0.994	61	1.411	66.1	L
3	D 16	2 400	1.552	119	3.725	443.3	L
4	D 13	2 730	0.994	61	2.714	165.6	J
5	"	15 190	"	9	15.099	135.9	---
6	"	15 190	"	4	15.099	60.4	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	O
9	"	2 860	"	87	2.843	247.3	O
						4465.8	
T 11							
1	D 19	5 240	2.235	61	11.711	714.4	L
2	"	3 450	"	58	7.711	447.2	L
3	D 13	5 130	0.994	61	5.099	311.0	J
4	"	15 190	"	30	15.099	543.6	---
5	"	8 610	"	2	8.558	17.1	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	540	"	207	0.537	111.2	"
F 1	D 16	3 740	1.552	119	5.804	690.7	L
2	D 13	1 390	0.994	61	1.362	64.3	L
3	D 16	2 400	1.552	119	3.725	443.3	L
4	D 13	2 730	0.994	61	2.714	165.6	J
5	"	15 190	"	9	15.099	135.9	---
6	"	15 190	"	4	15.099	60.4	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	O
9	"	2 860	"	87	2.843	247.3	O
						4311.2	
						D 19	1330.4
						D 16	2762.5
						D 13	4133.3
						TOTAL WEIGHT	8776.2

B - LINE

REIN NO.	Ø (mm)	LENGTH (mm)	NOMINAL WEIGHT	NO.	U WEIGHT	WEIGHT	REMARKS
T 9							
1	D 19	5 700	2.235	61	12.739	777.1	L
2	"	3 450	"	58	7.711	447.2	L
3	D 13	5 590	0.994	61	5.556	338.9	J
4	"	15 190	"	40	15.099	604.0	---
5	"	7 240	"	2	7.216	14.4	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	560	"	236	0.557	131.5	"
F 1	D 16	3 710	1.552	119	5.758	685.2	L
2	D 13	1 470	0.994	61	1.421	66.7	L
3	D 16	2 400	1.552	119	3.725	443.3	L
4	D 13	2 730	0.994	61	2.714	165.6	J
5	"	15 190	"	9	15.099	135.9	---
6	"	15 190	"	4	15.099	60.4	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	O
9	"	2 860	"	87	2.843	247.3	O
						4476.2	
T 10							
1	D 19	5 270	2.235	61	11.778	718.5	L
2	"	3 450	"	58	7.711	447.2	L
3	D 13	5 170	0.994	61	5.139	319.5	J
4	"	15 190	"	30	15.099	543.6	---
5	"	7 370	"	4	7.326	29.3	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	550	"	207	0.547	113.2	"
F 1	D 16	3 740	1.552	119	5.804	690.7	L
2	D 13	1 390	0.994	61	1.362	64.3	L
3	D 16	2 400	1.552	119	3.725	443.3	L
4	D 13	2 730	0.994	61	2.714	165.6	J
5	"	15 190	"	9	15.099	135.9	---
6	"	15 190	"	4	15.099	60.4	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	O
9	"	2 860	"	87	2.843	247.3	O
						4332.0	
T 11							
1	D 19	4 840	2.235	61	10.817	659.8	L
2	"	3 450	"	58	7.711	447.2	L
3	D 13	4 740	0.994	61	4.712	287.6	J
4	"	15 190	"	32	15.099	483.2	---
5	"	8 210	"	4	8.161	32.6	---
6	"	15 200	"	2	15.109	30.2	---
7	"	500	"	61	0.497	30.3	"
8	"	530	"	177	0.527	93.2	"
F 1	D 16	3 710	1.552	119	5.851	696.3	L
2	D 13	1 360	0.994	61	1.352	62.5	L
3	D 16	2 400	1.552	119	3.725	443.3	L
4	D 13	2 730	0.994	61	2.714	165.6	J
5	"	15 190	"	9	15.099	135.9	---
6	"	15 190	"	4	15.099	60.4	---
7	"	15 190	"	13	15.099	196.3	---
8	"	2 860	"	29	2.843	82.4	O
9	"	2 860	"	87	2.843	247.3	O
						4174.0	
						D 19	3457.0
						D 16	2492.1
						D 13	6063.6
						TOTAL WEIGHT	12969.7

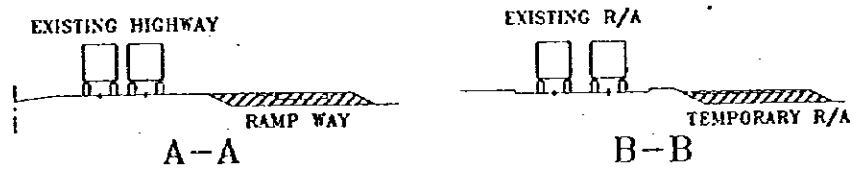
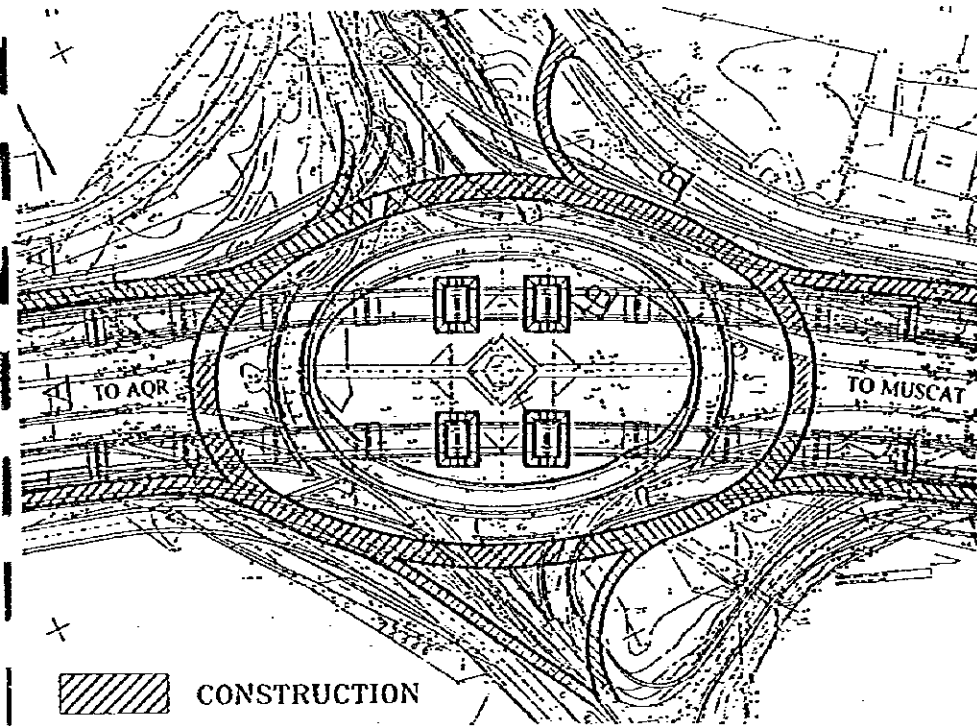
NOTES:

JAPAN INTERNATIONAL COOPERATION AGENCY
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FUKUYAMA CONSULTANTS INTERNATIONAL

CLIENT : MINISTRY OF COMMUNICATIONS, DIRECTORATE GENERAL OF ROADS
PROJECT : D/D ON ROAD DEVELOPMENT PROJECT ON BATINAH HIGHWAY
TITLE : R/A-12, SOHAR RE-BAR ARRANGEMENT (16)
DATE : DWG NO. W-37

TEMPORARY WORKS

FIRST CONSTRUCTION STAGE



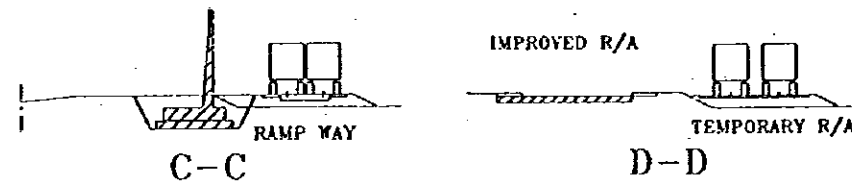
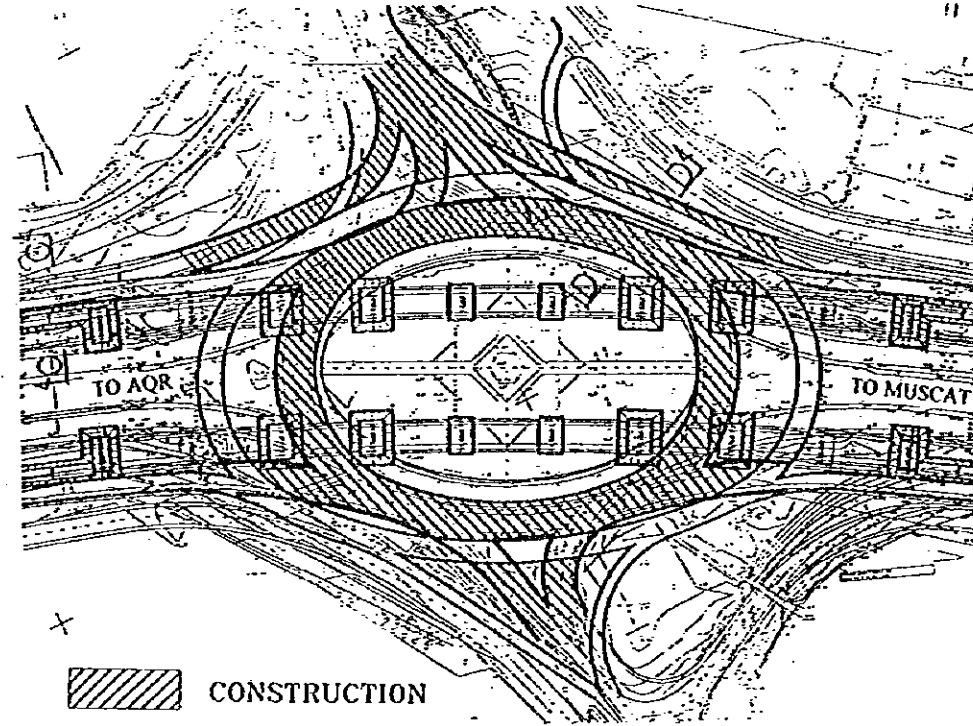
The traffic on the existing highway

Construction of ramp way (For temporary road)

Construction of temporary R/A

Construction of substructure (Internal area of existing R/A)

SECOND CONSTRUCTION STAGE



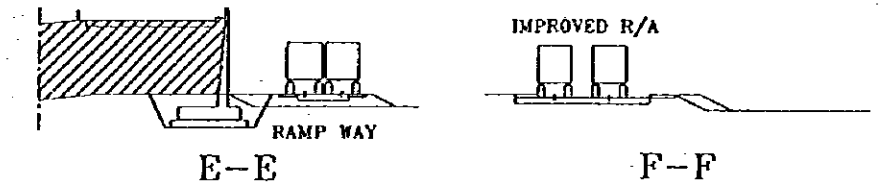
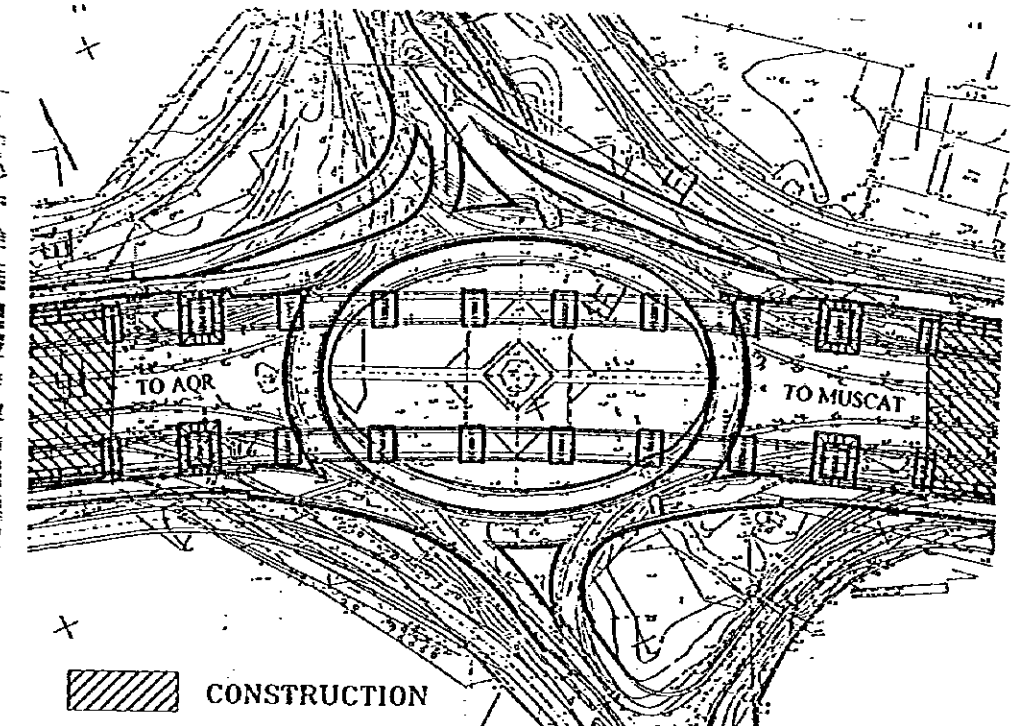
The traffic detour to ramp way and temporary road

Construction of substructure (External area of temporary R/A)

Construction of retaining wall

Construction for R/A improvement

THIRD CONSTRUCTION STAGE



The traffic detour to improved R/A

Construction of substructure (External area of improved R/A)

Embankment for retaining wall section

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 SOHAR FO CONSTRUCTION
DATE: DWGNO. T-1

