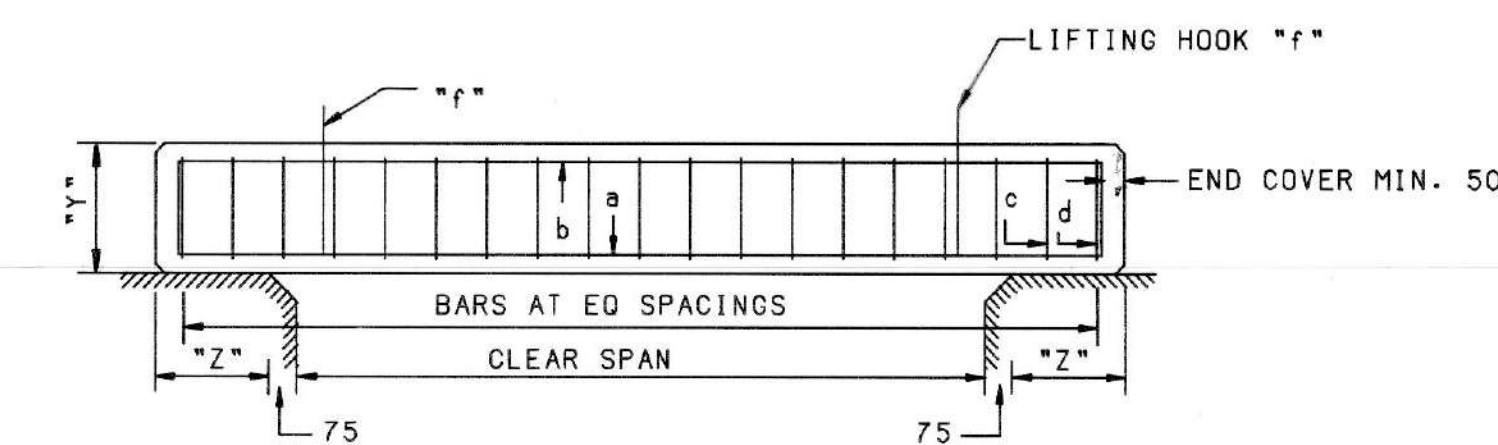
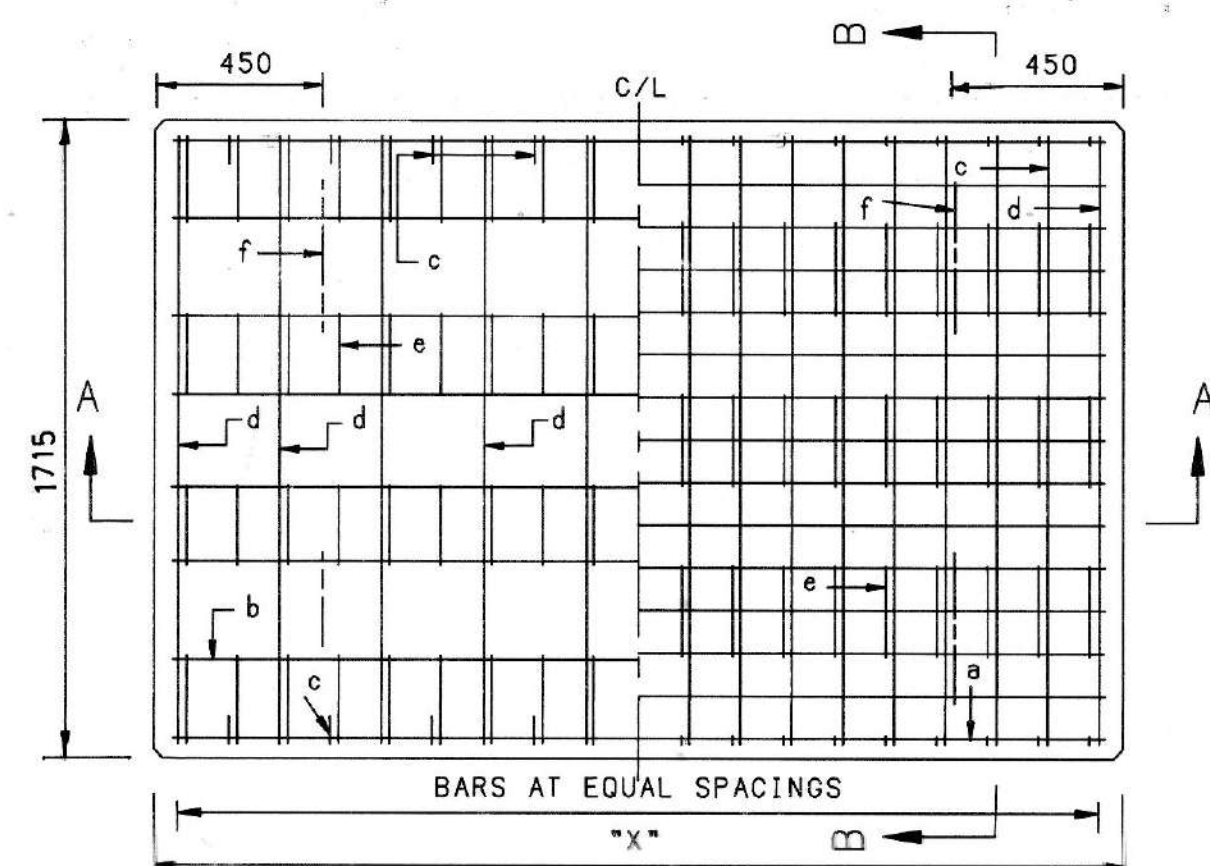
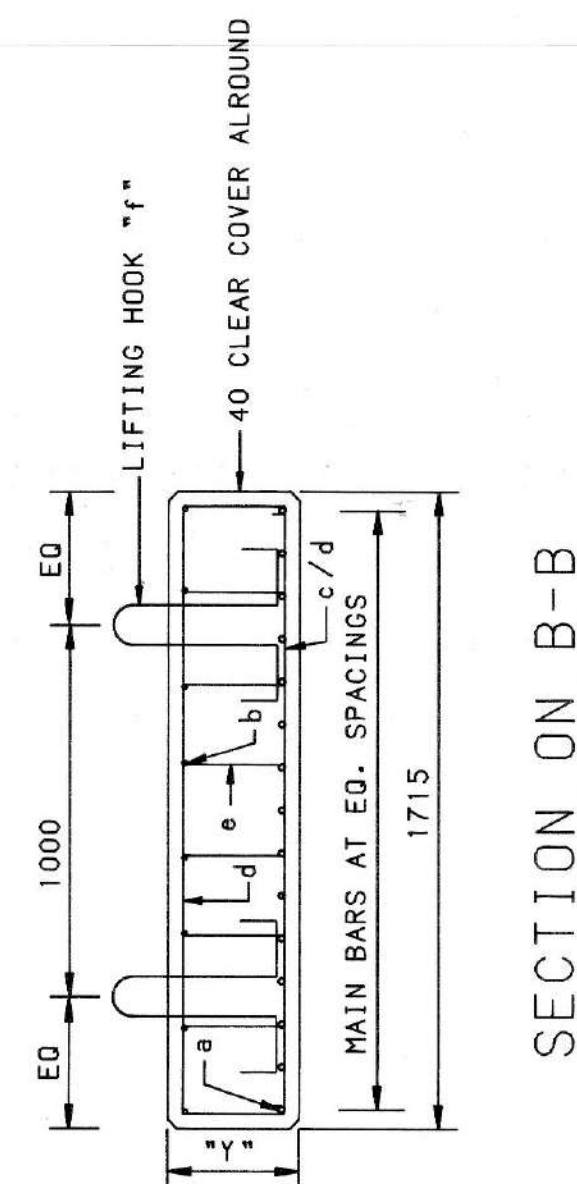




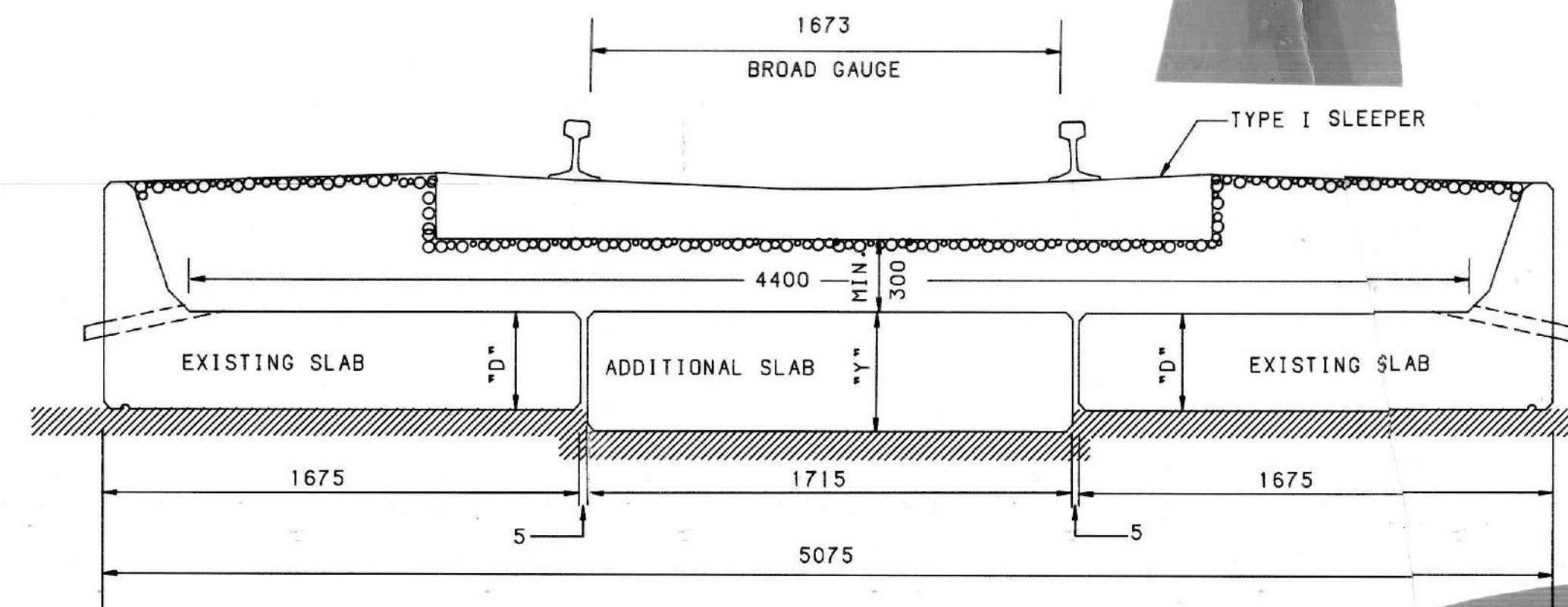
SECTIONAL ELEVATION ON A-A



HALF TOP HALF BOTTOM
TYPICAL SECTIONAL PLAN
(ADDITIONAL UNIT)



SECTION ON B-B

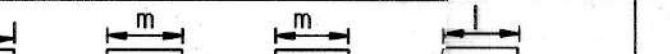


GENERAL ARRANGEMENT FOR SINGLE TRACK

DESCRIPTION AND QUANTITY SCHEDULE FOR EACH ADDITIONAL UNIT

CLEAR SPAN (m)	0.61	0.915	2.44	3.05	3.66	4.57
LENGTH "X" (mm)	1220	1525	3300	3950	4560	5550
DEPTH "Y" (mm)	225	250	380	450	525	625
BEARING PRESSURE AT SUPPORT (kN/sqm)	441	450	417	443	490	507
SUPPORT WIDTH "Z" (mm)	230	230	355	375	375	415
WEIGHT (kN)	11.7	16.2	53.6	76.0	102.4	148.4
CUBICAL QUANTITY (cum)	0.467	0.649	2.143	3.040	4.096	5.938
NET WEIGHT OF BARS # 25 (kg)	---	---	---	---	---	394.59
NET WEIGHT OF BAR # 22 (kg)	---	---	---	---	249.90	---
NET WEIGHT OF BAR # 20 (kg)	---	---	---	178.36	---	---
NET WEIGHT OF BAR # 16 (kg)	---	37.79	118.50	---	---	---
NET WEIGHT OF BAR # 12 (kg)	22.09	---	---	---	---	---
NET WEIGHT OF BAR # 10 (kg)	---	---	---	68.97	91.80	132.87
NET WEIGHT OF BAR # 8 (kg)	32.76	34.45	69.44	24.41	31.64	34.34
NET WT. OF STEEL+10% WASTAGE (Kg)	60.34	79.46	206.73	289.91	410.67	617.98
NET WT. OF STEEL+10% WASTAGE (kN)	0.592	0.779	2.027	2.931	4.027	6.061

BAR BENDING SCHEDULE FOR EACH ADDITIONAL UNIT

EXISTING SLAB			ADDITIONAL UNIT	BAR "a "						BAR "b "						BAR "c "						BAR "d "						BAR "e "										BAR "f "									
DRAWING No.	CLEAR SPAN (m)	DEPTH "D" (mm)	DEPTH "Y" (mm)																																												
				DIA	No.-REQ	K	l	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	No.-REQ	K	l	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	No.-REQ	K	l	m	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	No.-REQ	K	l	m	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	No.-REQ	K	l	m	n	p	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	No.-REQ	K	l	m	n	LENGTH OF ONE BAR	TOTAL LENGTH	
RDSO/B-829	0.610	200	225	12	16	1120	121	1290	20640	8	16	1096	117	1285	20560	8	5	1635	145	75	2030	10150	8	5	1635	145	75	3640	18200	8	16	10	145	116	95	135	75	3510	35100	12	4	315	150	75	99	1045	4180
RDSO/B-708	0.915	230	250	16	12	1425	146	1625	19500	8	12	1393	138	1625	19500	8	5	1635	170	75	2080	10400	8	6	1635	170	75	3690	22140	8	12	11	170	153	129	177	75	3300	36300	16	4	336	150	95	107	1105	4420
RDSO/B-711	2.440	350	380	16	19	3200	276	3660	69540	8	10	3168	268	3660	36600	8	12	1635	300	75	2340	28080	8	13	1635	300	75	3950	51350	8	10	14	300	186	162	210	75	4430	62020	16	4	466	150	95	107	1365	5460
RDSO/B-712	3.050	420	450	20	15	3850	340	4410	66150	10	8	3810	330	4410	35280	10	11	1635	370	75	2465	27115	10	12	1635	370	75	4070	48840	8	8	14	370	236	208	265	75	4470	62580	20	4	530	150	120	115	1515	6060
RDSO/B-713	3.660	490	525	22	15	4460	415	5160	77400	10	8	4416	403	5165	41320	10	15	1635	445	75	2615	39225	10	16	1635	445	75	4220	67520	8	8	16	445	236	206	266	75	5070	81120	22	4	603	150	130	119	1615	6460
RDSO/B-714	4.570	625	625	25	15	5450	515	6330	94950	10	8	5400	500	6340	50720	10	22	1635	545	75	2815	61930	10	23	1635	545	75	4420	101660	8	8	15	545	236	203	268	75	5870	88050	25	4	700	150	150	125	1885	7540

- ALL DIMENSIONS ARE IN MILLIMETERS EXCEPT OTHERWISE SHOWN.
- THIS DRAWING IS TO BE USED ON GAUGE CONVERSION PROJECTS ONLY.
- THE DESIGN IS SUITABLE FOR STRAIGHT ALIGNMENT ONLY.
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- EXISTING MC SLABS AND PROPOSED ADDITIONAL UNIT SHALL BE PLACED AS SHOWN IN THIS DRAWING UNDER THE SUPERVISION OF AEN/XEN OF THE PROJECT.
- THE SLAB HAS BEEN DESIGNED FOR 300 mm BALLAST CUSHION AND ITS MAINTENANCE SHALL BE ENSURED, NO OVERHANG ON THE SUB-STRUCTURE SHALL BE PERMITTED.
- CONTROLLED CONCRETE OF MINIMUM CUBE STRENGTH OF 25 N/sq mm AT 28 DAYS IS TO BE USED FOR THE PROVISION OF ADDITIONAL UNIT.
- MAXIMUM SIZE OF AGGREGATE TO BE USED IS 20 mm.
- ALL REINFORCEMENT SHALL BE OF HIGH STRENGTH DEFORMED BARS CONFORMING TO IS: 1786-1985.
- ANY TYPE OF SLEEPER MAY BE USED.
- TO FACILITATE THE WORKING OF BALLAST CLEANING MACHINE, LIFTING HOOKS SHALL BE CUT AFTER PROPER PLACEMENT OF UNITS AND SUITABLE WATERPROOFING COATS SHALL BE APPLIED ON THE CUT.
- TOP SURFACE OF ALL SLABS SHOULD BE GIVEN A FEW COATS OF COALTAR/BITUMEN OR ANY OTHER SUITABLE WATER PROOFING TREATMENT BEFORE THE TRACK IS LAID ON THEM.
- NO RAIL JOINT SHALL BE PROVIDED ON THE SPAN AND WITHIN 10 m ON ITS APPROACHES.
- FOR REFERENCE OF EXISTING MGML 2-UNIT SLABS, REFER TO TABLE IN THIS DRAWING.

NOTE

IRS CONCRETE BRIDGE CODE
(INCLUDING A&C SLIP No.1 TO 22)
BRIDGE RULES
(INCLUDING A&C SLIP No.1 TO 21)
IS:456-78
IS:1786-85

MILLIMETRES
200 0 200 400 600 800
1:20

SPECIFICATION

SCALE

ALT DESCRIPTION DATE

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(MINISTRY OF RAILWAYS)
LUCKNOW - 226011-INDIA
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PART OR WHOLE WITHOUT PRIOR CONSENT IN WRITING

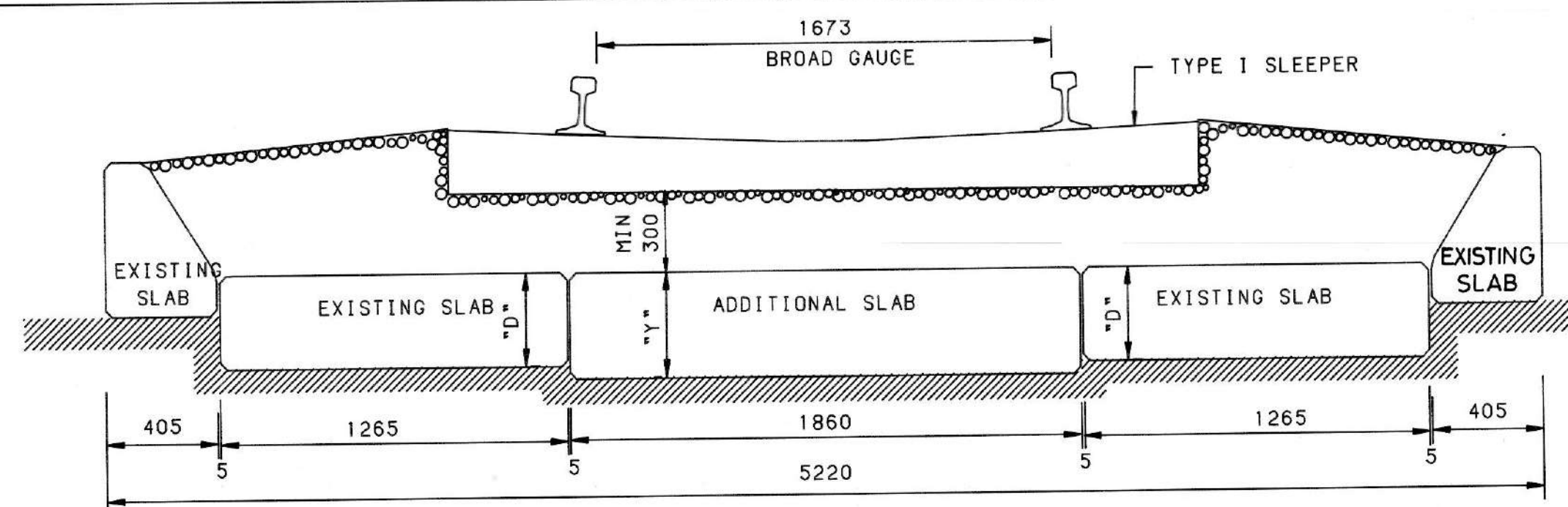
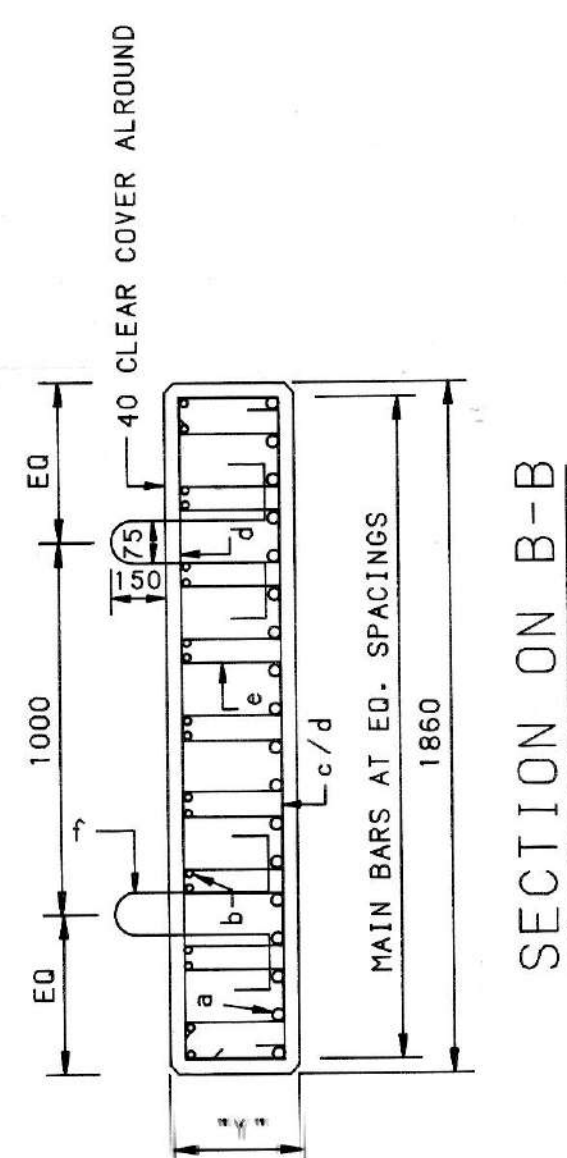
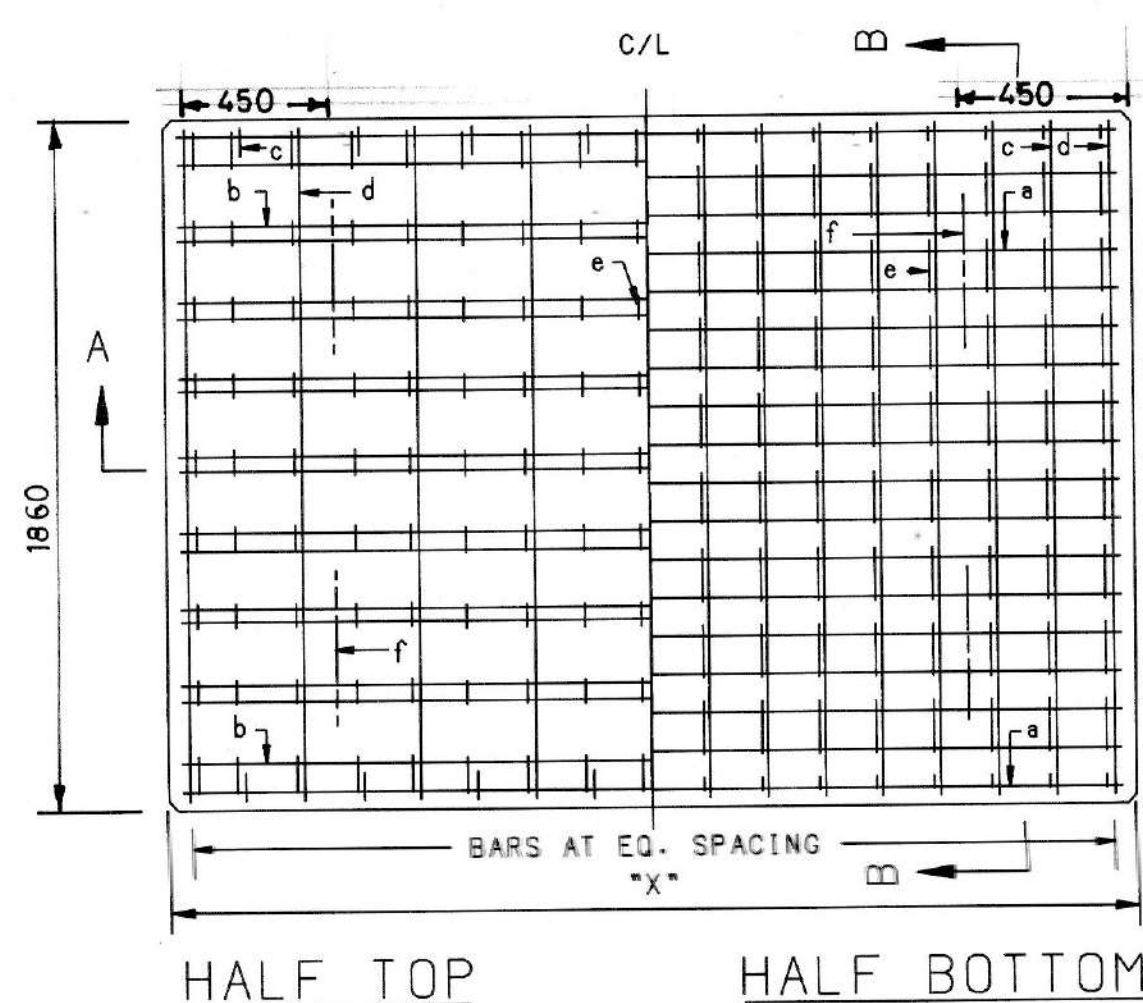
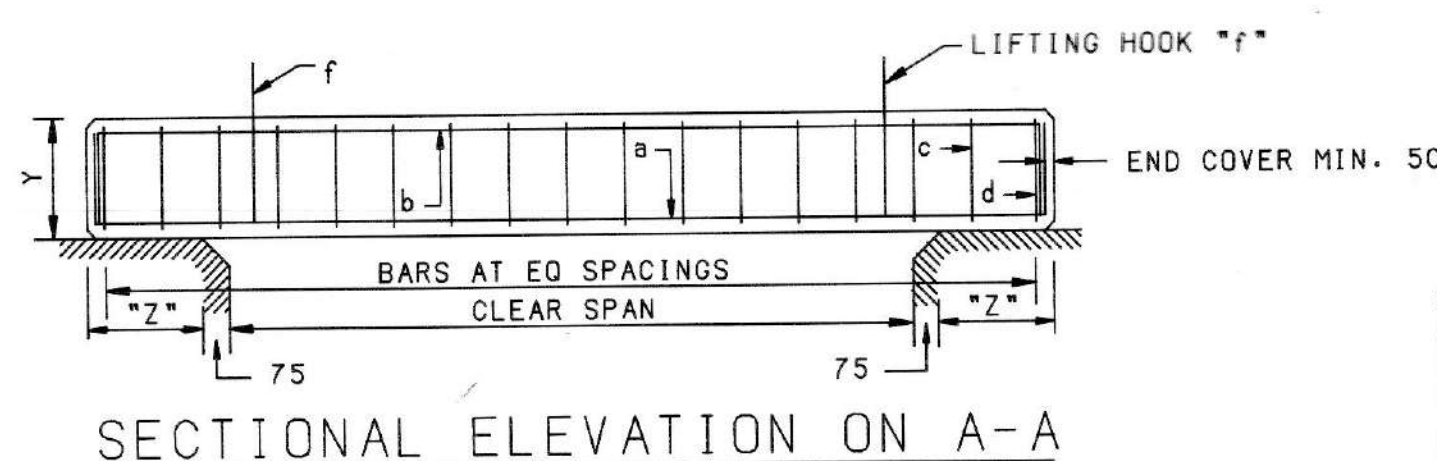
R.D.S.O.

EXISTING MGML 2-UNIT SLABS
WITH ADDITIONAL UNIT FOR GAUGE
CONVERSION, SUITABLE FOR
MBG LOADING-1987

PROVISIONAL 29-9-93

RDSO/B-1740

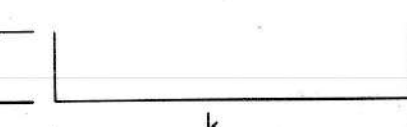
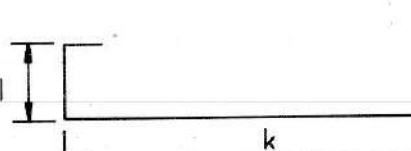
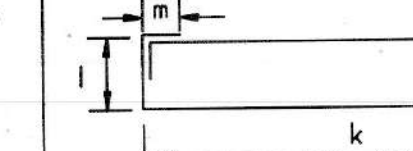
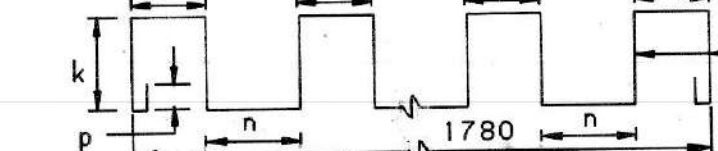
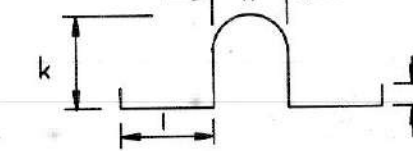
CALCULATION : BY COMPUTER	D/CAD BY: SHUKLA & ANSARI	SCRUTINISED & CHECKED BY:	SCRUTINISED & RECOMMENDED BY:	APPROVED BY:	FILE NO: CBS/DCS
REF: DONE BY: K.C. JAIN	CHECKED BY: (S.K. SAXENA)	DDS (BAS) CB-1 (S.K. SAXENA)	JDS (BAS) CB-1 (SURENDRA KUMAR)	D S (BAS)	NOTIFICATION No:



DESCRIPTION AND QUANTITY SCHEDULE FOR EACH ADDITIONAL UNIT

CLEAR SPAN (m)	0.915	1.22	1.83	2.44	3.05	3.66	4.57
LENGTH "X" (mm)	1525	1830	2590	3300	3950	4560	5550
DEPTH "Y" (mm)	250	280	325	375	450	525	625
BEARING PRESSURE AT SUPPORT (kN/sqm)	414	426	374	355	375	375	415
SUPPORT WIDTH "Z" (mm)	230	230	305	355	375	375	415
WEIGHT (kN)	17.6	23.7	39.0	57.4	82.4	111.1	161.0
CUBICAL QUANTITY (Cum)	0.704	0.948	1.555	2.294	3.297	4.443	6.440
NET WEIGHT OF BARS # 25 (kg)	—	—	—	138.32	200.14	—	—
NET WEIGHT OF BARS # 20 (kg)	—	—	—	—	—	—	—
NET WEIGHT OF BARS # 16 (kg)	37.79	51.38	88.70	—	—	—	—
NET WEIGHT OF BARS # 12 (kg)	—	—	—	—	—	—	—
NET WEIGHT OF BARS # 10 (kg)	—	—	—	67.03	77.58	95.95	139.00
NET WEIGHT OF BARS # 8 (kg)	35.78	42.84	79.30	36.66	26.64	32.45	35.07
NET WT. OF STEEL+10% WASTAGE (kg)	80.92	103.64	184.80	266.21	334.80	452.77	625.52
NET WT. OF STEEL+10% WASTAGE (kN)	0.793	1.016	1.812	2.611	3.283	4.440	6.134

BAR BENDING SCHEDULE FOR EACH ADDITIONAL UNIT

EXISTING SLAB			ADDITIONAL MIDDLE UNIT	BAR "a "						BAR "b "						BAR "c "						BAR "d "						BAR "e "										BAR "f "									
DRAWING No.	CLEAR SPAN (m)	DEPTH "D" (mm)	DEPTH "Y" (mm)																																												
				DIA	No. REQ	K	l	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	No. REQ	K	l	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	No. REQ	K	l	m	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	No. REQ	K	l	m	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	No. REQ	K	l	m	n	p	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	No. REQ	K	l	m	n	LENGTH OF ONE BAR	TOTAL LENGTH	
RDSO/B-531	0.915	230	250	16	12	1425	146	1625	19500	8	12	1393	138	1570	18840	8	5	1780	170	75	2225	11125	8	6	1780	170	75	3980	23880	8	11	12	170	166	142	190	75	3445	37895	16	4	336	150	75	107	1105	4420
RDSO/B-532	1.220	270	280	16	14	1730	176	1990	27860	8	14	1698	168	1990	27860	8	5	1780	200	75	2285	11425	8	6	1780	200	75	4040	24240	8	11	14	200	142	118	166	75	4210	46310	16	4	366	150	95	107	1165	4660
BA-10021	1.830	280	325	16	18	2490	221	2840	51120	8	18	2458	213	2840	51120	8	8	1780	245	75	2375	19000	8	9	1780	245	75	4130	37170	8	17	18	245	110	86	134	75	5650	96050	16	4	411	150	95	107	1255	5020
BA-10022	2.440	350	375	20	14	3200	265	3610	50540	10	14	3160	255	3610	50540	10	8	1780	295	75	2460	19680	10	9	1780	295	75	4210	37890	8	17	14	295	141	113	169	75	5530	94010	20	4	455	150	120	115	1365	5460
BA-10023	3.050	420	450	20	17	3850	340	4410	74970	10	10	3810	330	4410	44100	10	11	1780	370	75	2610	28710	10	12	1780	370	75	4360	52320	8	13	10	370	116	196	252	75	5255	68315	20	4	530	150	120	115	1515	6060
BA-10024	3.660	490	525	25	13	4460	415	5140	66820	10	8	4410	400	5150	41200	10	15	1780	445	75	2760	41400	10	16	1780	445	75	4570	72160	8	16	8	445	152	263	329	75	5200	83200	25	4	600	150	150	125	1685	6740
BA-10025	4.570	625	625	25	15	5450	515	6330	94950	10	8	5400	500	6340	50720	10	22	1780	545	75	2960	65120	10	23	1780	545	75	4710	108330	8	15	8	545	254	221	287	75	5995	89925	25	4	700	150	150	125	1885	7540

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- FOR REFERENCE OF EXISTING MGML 4-UNIT SLABS, REFER TO TABLE IN THIS DRAWING.

IRS CONCRETE BRIDGE CODE
(INCLUDING A&C SLIP No.1 TO 22)
BRIDGE RULES
(INCLUDING A&C SLIP No.1 TO 21)
IS:456-78
IS:1786-85

MILLIMETRES
200 0 200 400 600 800
1:20

NOTE

SPECIFICATION

SCALE

ALT

DESCRIPTION

DATE

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R.D.S.O.

EXISTING MGML 4-UNIT SLABS
WITH ADDITIONAL UNIT FOR
GAUGE CONVERSION, SUITABLE
FOR MBG LOADING - 1987

PROVISIONAL 29-9-93

RDSO/B-1741

CALCULATION BY COMPUTER REF: DONE BY: K.C. JAIN CHECKED BY: (S.K. SAXENA)	D/CAD BY: SHUKLA & ANSARI CHECKED BY: (K.C. JAIN)	SCRUTINISED & CHECKED BY: DDS (B&S) CB-1 (S.K. SAXENA)	SCRUTINISED & RECOMMENDED BY: JDS (B&S) CB-1 (SURENDRA KUMAR)	APPROVED BY: D S (B&S)	FILE NO: CBS/DCS NOTIFICATION No:
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