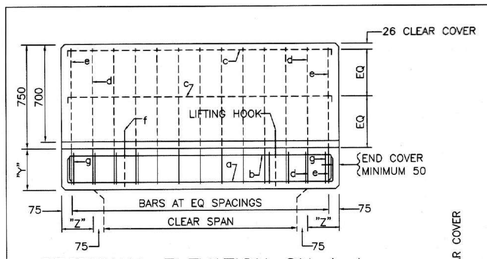
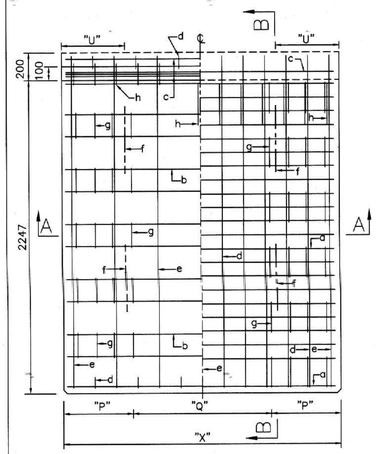
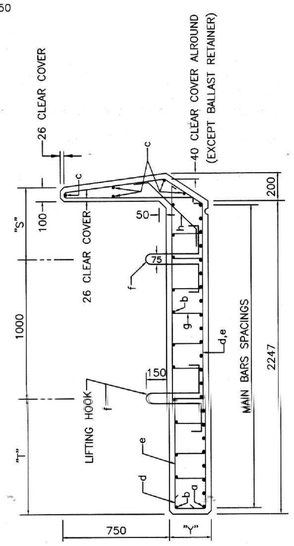


SECTIONAL ELEVATION ON A A

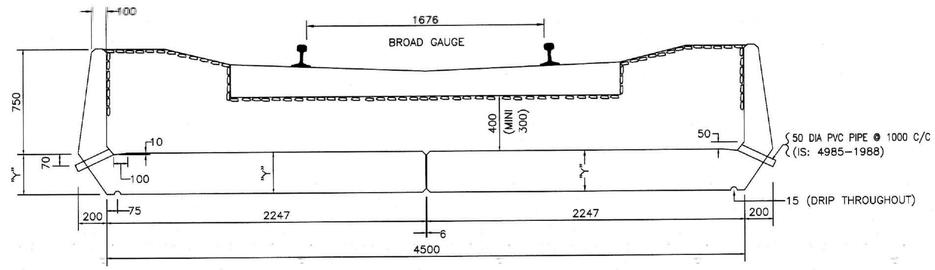


HALF TOP HALF BOTTOM

TYPICAL SECTIONAL PLAN



SECTION ON B B



GENERAL ARRANGEMENT FOR SINGLE TRACK

DESCRIPTION FOR EACH UNIT

DIMENSION OF SLAB			POSITION OF LIFTING HOOK			BEARING PRESSURE AT SUPPORT	
CLEAR SPAN (m)	LENGTH "X"	DEPTH "Y"	"S"	"T"	"U"	SUPPORT "Z"	kN/m²
0.610	1210	245	482	865	375	200–375	612–306
0.915	1515	270	497	850	375	200–375	572–286
1.220	1970	295	510	837	450	250–400	445–267
1.830	2580	335	527	820	450	250–400	434–260
2.440	3290	375	541	806	500	200–400	641–299

QUANTITY SCHEDULE FOR EACH UNIT

DESCRIPTION					
CLEAR SPANS	0.610m	0.915m	1.22m	1.83m	2.44m
WEIGHT (kN)	20.70	28.20	39.50	57.90	81.50
CUBICAL QUANTITY (cu m)	0.828	1.127	1.582	2.315	3.262
NET WEIGHT OF BARS # 8 (kg)	43.30	53.00	59.81	15.760	18.99
NET WEIGHT OF BARS # 10 (kg)	–	–	–	79.41	104.40
NET WEIGHT OF BARS # 16 (kg)	45.16	58.18	83.90	–	–
NET WEIGHT OF BARS # 20 (kg)	–	–	–	132.66	184.41
NET WEIGHT OF STEEL + 10% WASTAGE (kg)	97.31	122.30	158.08	250.61	338.58
NET WEIGHT OF STEEL + 10% WASTAGE (kN)	0.954	1.199	1.550	2.458	3.321

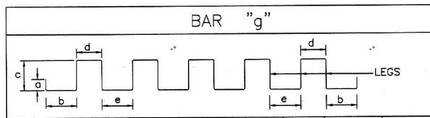
ARRANGEMENT FOR SHEAR REINFORCEMENT

SPAN (m)	PORTION "P"		PORTION "Q"		TOTAL Nos OF STIRRUPS (BAR–"g")
	LENGTH (mm)	Nos OF STIRRUPS	LENGTH (mm)	Nos OF STIRRUPS	
0.610	430	4	350	–	8
0.915	480	4	555	–	8
1.220	610	4	750	–	8
1.830	790	5	1000	–	10
2.440	940	5	1450	–	10

BAR BENDING SCHEDULE FOR EACH UNIT

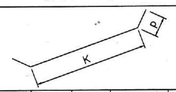
CLEAR SPAN (m)	DEPTH "Y" (mm)	BAR "a"						BAR "b"						BAR "c"						BAR "d"												BAR "e"												BAR "f"							
		DIA	NOS REQD	k	l	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	NOS REQD	k	l	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	NOS REQD	k	75 l	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	NOS REQD	k	l	m	n	p	q	r	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	NOS REQD	k	l	m	n	p	q	r	s	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	NOS REQD	k	l	m	n	LENGTH OF ONE BAR	TOTAL LENGTH
0.610	245	16	18	1110	141	1300	23400	8	18	1078	133	1300	23400	8	5	1110	75	1260	6300	8	3	2167	905	165	251	75	48	727	4390	13170	8	4	2167	905	165	251	75	48	727	2352	6720	26880	16	4	331	95	250	107	1295	5180
0.915	270	16	19	1415	166	1655	31445	8	18	1383	158	1655	29790	8	5	1415	75	1565	7825	8	4	2167	925	190	272	75	48	727	4455	17820	8	5	2167	925	190	272	75	48	727	2352	6785	33925	16	4	356	95	250	107	1345	5380
1.220	295	16	22	1870	191	2160	47520	8	12	1838	183	2160	25920	8	5	1870	75	2020	10100	8	6	2167	945	215	293	75	48	727	4525	27150	8	7	2167	945	215	293	75	48	727	2352	6850	47950	16	4	381	95	250	107	1395	5580
1.830	335	20	17	2480	225	2810	47770	10	10	2440	215	2810	28100	10	5	2480	75	2630	13150	10	6	2167	975	255	329	75	48	727	4625	27750	10	7	2167	975	255	329	75	48	727	2352	6945	48615	20	4	415	120	250	115	1485	5940
2.440	375	20	19	3190	265	3600	68400	10	10	3150	255	3600	36000	10	5	3190	75	3340	16700	10	8	2167	1000	295	365	75	48	727	4725	37800	10	9	2167	1000	295	365	75	48	727	2352	7045	63405	20	4	455	120	250	115	1565	6260

BAR "g"



DIA	NOS REQD	NOS OF LEGS	a	b	c	d	e	LENGTH OF ONE BAR	TOTAL LENGTH
8	8	18	75	96	165	102	150	4570	36560
8	8	18	75	113	190	100	148	5020	40160
8	8	10	75	226	215	178	226	4070	32560
8	10	8	75	244	255	225	281	4040	40400
8	10	10	75	111	295	200	256	4870	48700

BAR "h"



DIA	NOS REQD	k	p	LENGTH OF ONE BAR	TOTAL LENGTH
8	7	475	100	675	4725
8	9	540	100	710	6390
8	13	545	100	745	9685
10	13	610	100	805	10465
10	17	660	100	860	14620

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. VIBRATED CONTROLLED CONCRETE OF MINIMUM CUBE STRENGTH OF 30 N/sq mm AT 28 DAYS SHALL BE USED.
3. ALL REINFORCEMENT BARS SHALL CONFORM TO IS:1786–1985.
4. SPACING OF REINFORCEMENT ARE WITH REFERENCE TO THE CENTRE LINES OF BARS.
5. MAXIMUM SIZE OF AGGREGATE TO BE USED IS 20 mm.
6. SIZE OF REINFORCEMENT BARS AND THEIR BENDING DETAILS FOR EACH SPAN ARE INDICATED IN THE TABLE OF BAR BENDING SCHEDULE. DIMENSIONS WRITTEN IN THE TABLE, ARE DISTANCE BETWEEN OUTER EDGES OF BARS.
7. ALL CORNERS OF SLAB SHALL HAVE A CHAMFER OF 25 mm.
8. DATE OF CASTING AND NAME OF CASTING DEPOT SHOULD BE ENGRAVED ON EACH UNIT.
9. BEFORE PLACING THE PRECAST UNIT, A LAYER OF CEMENT SLURRY AND CAST IRON BORINGS SHALL BE PROVIDED ON THE SEATING AREA OF ABUTMENT/PIER.
10. TOP SURFACE OF THE SLAB SHALL BE GIVEN A FEW COATS OF COALTAR/BITUMEN OR ANY OTHER SUITABLE WATER PROOFING TREATMENT BEFORE LAYING THE TRACK.
11. WEIGHT OF REINFORCED CONCRETE HAS BEEN ASSUMED AS 25 kN/cu m.
12. SLABS HAVE BEEN DESIGNED FOR 300 mm CUSHION AND CHECKED FOR 400 mm CUSHION.
13. THESE SLABS ARE SUITABLE FOR CURVED TRACK UPTO 10 DEGREE.
14. BALLAST CUSHION MAY BE ADJUSTED TO CATER FOR SUPER ELEVATION WHILE PLACING THE SLABS ON CURVES.
15. THESE SLABS CAN ALSO BE USED FOR REPLACEMENT OF EXISTING SLABS, IF CLEAR SPAN OF EXISTING SLAB IS LESS THAN THAT OF THE PROPOSED SLABS.
16. NEW SLABS OF SPAN 0.61m AND 0.915m SHALL BE USED ONLY FOR REPLACEMENT OF OLD SLABS.

अ0अ0मा0सं0

R D S O

भारी खनिज धारण–1995 के लिए अभिकल्प,
0.61, 0.915, 1.22, 1.83 और 2.44 मानक पाट के लिए उपयुक्त
पूर्व निर्मित प्रबलित कंक्रीट पुल स्लैब
(कंक्रीट ग्रेड एम–30)

PRECAST R C BRIDGE SLAB
STANDARD SPANS 0.61, 0.915, 1.22, 1.83 & 2.44m
FOR HM LOADING–1995, (CONCRETE GRADE M–30)

दिनांक / DATE: 13 –11 –2006

BA–10060

NOTE	SPECIFICATION	SCALE	ALT	DESCRIPTION	DATE
	BRIDGE RULES–1964 IRS: CONCRETE BRIDGE CODE–1962 IS: 1786–1985	MILLIMETRES 200 100 0 200 400 600 800 1:20			

CALCULATION REGISTER No. 121,124/99	AUTOCAD BY:	SCRUTINISED & CHECKED BY:	SCRUTINISED/RECOMMENDED BY:	APPROVED BY	FILE NO. CBS/DCS
PAGES DONE BY–	CHECKED BY–	ADE/(B&S)CB–II	DBS/CB–II 13/11/2006	ED/B&S 13/11/06	NOTING PAGE NO.
CHECKED BY–					