

FACTORED BEARING LOAD DATA (COMBINED LOADS)

FOR MOVEMENT

FOR SUPPORT REACTION

FOR ROTATION

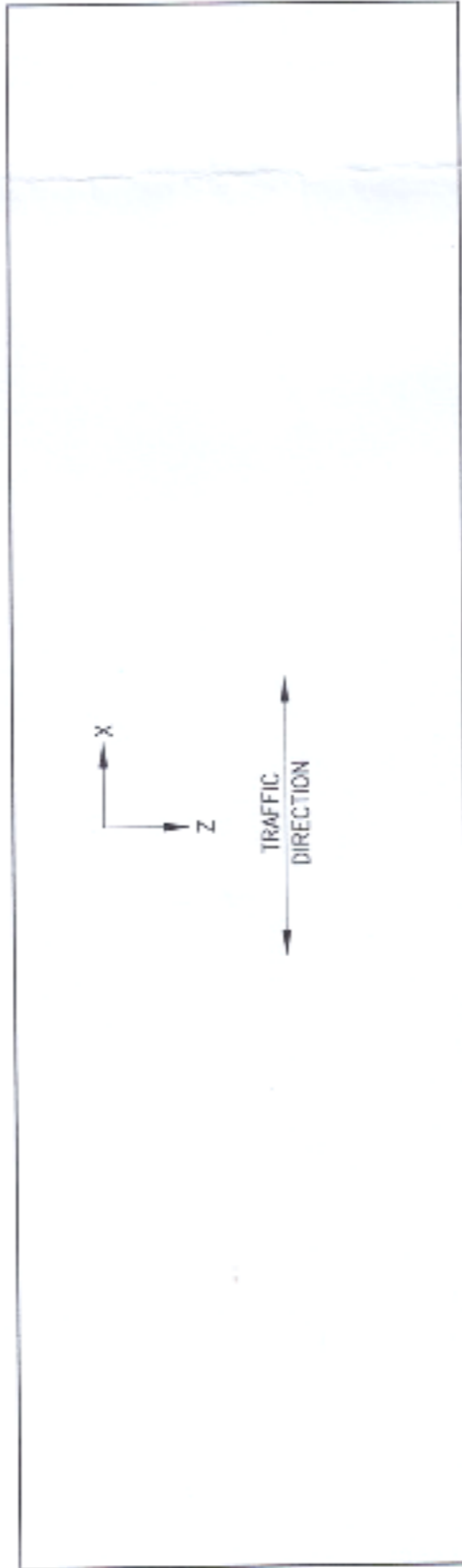
SUPPORT	BEARING TYPE	LOAD CASE	FY (T)			FX (T)			FZ (T)			DY (MM)			DX (MM)			Y (RAD)			X (RAD)			Z (RAD)				
			Comb.-a	Comb.-b	Comb.-c	Comb.-a	Comb.-b	Comb.-c	Comb.-a	Comb.-b	Comb.-c	Comb.-a	Comb.-b	Comb.-c	Comb.-a	Comb.-b	Comb.-c	Comb.-a	Comb.-b	Comb.-c	Comb.-a	Comb.-b	Comb.-c	Comb.-a	Comb.-b	Comb.-c		
SB-1	FIXED	ULS	933.746	850.317	873.851	226.083	280.005	235.829	0.000	71.874	121.182	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0060	0.0060	0.0060
		SLS	759.677	726.385	747.780	177.210	237.930	204.270	0.000	65.340	110.165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0060	0.0060	0.0060
SB-2	LONG GUIDED	ULS	933.746	850.317	873.851	0.000	0.000	0.000	0.000	71.874	121.182	0.000	73.360	74.825	74.380	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0060	0.0060	0.0060
		SLS	759.677	726.385	747.780	0.000	0.000	0.000	0.000	65.340	110.165	0.000	73.360	74.825	74.380	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0060	0.0060	0.0060
SB-3	TRANS. GUIDED	ULS	933.746	850.317	873.851	226.083	280.005	235.829	0.000	0.000	0.000	0.000	0.000	5.090	5.350	5.523	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0060	0.0060	0.0060
		SLS	759.677	726.385	747.780	177.210	237.930	204.270	0.000	0.000	0.000	0.000	0.000	0.000	5.090	5.350	5.523	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0060	0.0060	0.0060
SB-4	FREE	ULS	933.746	850.317	873.851	0.000	0.000	0.000	0.000	0.000	0.000	0.000	73.360	74.825	74.380	5.523	5.523	5.523	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0060	0.0060	0.0060
		SLS	759.677	726.385	747.780	0.000	0.000	0.000	0.000	0.000	0.000	0.000	73.360	74.825	74.380	5.523	5.523	5.523	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0060	0.0060	0.0060

LOAD COMBINATIONS WITH LOAD FACTOR

COMBINATION	LOAD CASE x ULS FACTOR		
	Comb.-a	$DLx(1.1x1.1) + SIDLx(1.1x1.1) + FPLx(1.50x1.1) + LL(0)x(1.40x1.1) + LFx(1.40x1.1) + BFX(1.30x1.1)$	
Comb.-b	$DLx(1.1x1.1) + SIDLx(1.1x1.1) + FPLx(1.25x1.1) + LL(0)x(1.20x1.1) + LFx(1.20x1.1) + BFX(1.30x1.1) + WLx(1.10x1.1)$		
Comb.-c	$DLx(1.1x1.1) + SIDLx(1.1x1.1) + FPLx(1.25x1.1) + LL(0)x(1.20x1.1) + 0.5xLFx(1.20x1.1) + BFX(1.30x1.1) + Sx(1.10x1.1)$		
COMBINATION	LOAD CASE x SLS FACTOR		
	Comb.-a	$DLx(1.00x1.1) + SIDLx(1.00x1.1) + FPLx(1.00x1.1) + LL(0)x(1.10x1.1) + LFx(1.10x1.1) + BFX(1.00x1.1)$	
Comb.-b	$DLx(1.00x1.1) + SIDLx(1.00x1.1) + FPLx(1.00x1.1) + LL(0)x(1.00x1.1) + LFx(1.00x1.1) + BFX(1.00x1.1) + WLx(1.00x1.1)$		
Comb.-c	$DLx(1.00x1.1) + SIDLx(1.00x1.1) + FPLx(1.00x1.1) + LL(0)x(1.00x1.1) + 0.5xLFx(1.00x1.1) + BFX(1.00x1.1) + Sx(1.00x1.1)$		

(LONG GUIDED)

SB-2



(TRANS. GUIDED)

SB-4

(FREE)

SCHEMATIC DIAGRAM SHOWING SPHERICAL BEARING LOCATION

NOTES :

- THE DESIGN AND THE MANUFACTURE OF THE BEARINGS SHALL COMPLY WITH THE FOLLOWING STANDARDS:
  - (a) MANDATORY STANDARDS:
    - EN 1337-7 SPHERICAL BEARING
    - ETA FOR SPHERICAL BEARING WITH SPECIAL SLIDING MATERIAL
  - (b) SUPPORTING STANDARDS:
    - EN 1337-1 GENERAL DESIGN OF BEARINGS
    - EN 1337-2 SLIDING SURFACES
    - EN 1337-5 POT BEARINGS
- OTHER STANDARDS AND / OR APPROVAL DOCUMENTS WHICH SHOULD BE USED IN SPECIAL CONDITIONS TO ACCOMMODATE DESIGN CONSTRAINTS.
- MATERIAL CERTIFICATE SHALL BE FURNISHED IN ACCORDANCE EN 10204 AS PER STIPULATIONS LAID DOWN IN EN 1337-7 AND ETA
- BEARINGS SHALL HAVE TO BE MANUFACTURED ADHERING STRICTLY TO THE TECHNICAL SPECIFICATIONS.
- (+ve) SIGN OF 'FY' DENOTES DOWNWARD VERTICAL LOAD. FOR HORIZONTAL LOADS, MOVEMENTS AND ROTATIONS THE TABULATED VALUES ARE ABSOLUTE VALUES IRRESPECTIVE OF DIRECTION.

RVNL SIGNATORIES	DESIGNATION	SIGN
	CPM-1/BSB (VIKAS CHANDRA)	
	AGM/RVNL/ALD (V.K. AGARWAL)	
	SR.DGM/RVNL/ALD (D.C. SHUKLA)	

PROOF CHECKED

Signature

Department of Engineering

131, 152/3, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000



NORTH EASTERN RAILWAY



रेल विकास निगम लिमिटेड  
Rail Vikas Nigam Limited  
(A Government of India Enterprise)

PROPOSED RAIL BRIDGE ACROSS RIVER GANGA  
AT ALLAHABAD OF 24X76.20M FOR DOUBLE LINE  
(AT U/S OF EXISTING BRIDGE NO 111, 40X45.70M)

BEARING LOAD DATA DRAWING

SCALE	DATE	DRAWN	CHECKED	APPROVED
1:20	27.05.21	AJ	SC	PG
DRAWING NUMBER	REV.			
2018-19/J-844/BL-01	0			

CDC CONSULTING DESIGN  
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REV.	DATE	DESCRIPTION	BY	CHK./APD.