

BEARING REACTIONS AND ROTATIONS - UNFACTORED

BEARING		167	168	169	170
		SOUTHEAST	SOUTHWEST	NORTHEAST	NORTHWEST
GIRDER SELF WEIGHT	VERTICAL LOAD (kN)	733	1011	394	1600
	LONGITUDINAL (kN)	0	0	0	0
	TRANSVERSE (kN)	0	0	0	0
	LONGITUDINAL ROTATION (rad.)	0.00105	0.00087	0.00070	0.00070
	LATERAL ROTATION (rad.)	0.00052	0.00052	0.00070	0.00070
INCREMENTAL DEAD LOAD PHASE I (AFTER POUR 1)	VERTICAL LOAD (kN)	455	758	159	1365
	LONGITUDINAL (kN)	0	0	56	0
	TRANSVERSE (kN)	88	0	56	0
	LONGITUDINAL ROTATION (rad.)	0.00105	0.00105	0.00070	0.00070
	LATERAL ROTATION (rad.)	0.00052	0.00052	0.00087	0.00070
INCREMENTAL DEAD LOAD PHASE II (AFTER POUR 2)	VERTICAL LOAD (kN)	659	900	500	1144
	LONGITUDINAL (kN)	0	0	40	0
	TRANSVERSE (kN)	59	0	41	0
	LONGITUDINAL ROTATION (rad.)	0.00070	0.00070	0.00035	0.00035
	LATERAL ROTATION (rad.)	0.00035	0.00035	0.00052	0.00035
INCREMENTAL DEAD LOAD - SUPERIMPOSED DEAD LOAD	VERTICAL LOAD (kN)	370	1054	199	1466
	LONGITUDINAL (kN)	0	0	0	0
	TRANSVERSE (kN)	0	0	0	0
	LONGITUDINAL ROTATION (rad.)	0.00087	0.00105	0.00052	0.00070
	LATERAL ROTATION (rad.)	0.00035	0.00052	0.00070	0.00070
CONSTRUCTION LIVE LOAD	VERTICAL LOAD (kN)	508	748	288	1150
	LONGITUDINAL (kN)	0	0	0	0
	TRANSVERSE (kN)	0	0	0	0
	LONGITUDINAL ROTATION (rad.)	0.00070	0.00070	0.00052	0.00052
	LATERAL ROTATION (rad.)	0.00035	0.00035	0.00052	0.00052
LIVE LOAD CASE (MAXIMUM REACTION)	VERTICAL LOAD (kN)	1061	1056	832	1315
	LONGITUDINAL (kN)	0	0	5	0
	TRANSVERSE (kN)	0	0	2	0
	LONGITUDINAL ROTATION (rad.)	0.00209	0.00192	0.00140	0.00122
	LATERAL ROTATION (rad.)	0.00122	0.00105	0.00192	0.00157
LIVE LOAD CASE II (MINIMUM REACTIONS)	VERTICAL LOAD (kN)	-175	-141	-217	-48
	LONGITUDINAL (kN)	0	0	2	0
	TRANSVERSE (kN)	0	0	3	0
	LONGITUDINAL ROTATION (rad.)	0.00209	0.00192	0.00140	0.00122
	LATERAL ROTATION (rad.)	0.00122	0.00105	0.00192	0.00157
WIND LOAD (MAXIMUM DOWNWARD)	VERTICAL LOAD (kN)	228	364	182	491
	LONGITUDINAL (kN)	0	0	321	0
	TRANSVERSE (kN)	741	0	482	0
	LONGITUDINAL ROTATION (rad.)	0.00035	0.00035	0.00035	0.00017
	LATERAL ROTATION (rad.)	0.00017	0.00017	0.00035	0.00035
WIND LOAD (MAXIMUM UPWARD)	VERTICAL LOAD (kN)	-233	-433	-153	-608
	LONGITUDINAL (kN)	0	0	322	0
	TRANSVERSE (kN)	740	0	481	0
	LONGITUDINAL ROTATION (rad.)	0.00035	0.00052	0.00035	0.00035
	LATERAL ROTATION (rad.)	0.00017	0.00017	0.00035	0.00035
WIND LOAD ON LIVE LOAD	VERTICAL LOAD (kN)	0	-18	7	-30
	LONGITUDINAL (kN)	0	0	165	0
	TRANSVERSE (kN)	381	0	247	0
	LONGITUDINAL ROTATION (rad.)	0.00000	0.00000	0.00000	0.00000
	LATERAL ROTATION (rad.)	0.00000	0.00000	0.00000	0.00000
EARTHQUAKE LOAD	VERTICAL LOAD (kN)	17	15	61	28
	LONGITUDINAL (kN)	0	0	139	0
	TRANSVERSE (kN)	246	0	45	0
	LONGITUDINAL ROTATION (rad.)	0.00017	0.00000	0.00017	0.00000
	LATERAL ROTATION (rad.)	0.00000	0.00000	0.00000	0.00017
THERMAL EFFECTS	VERTICAL LOAD (kN)	17	-17	-13	13
	LONGITUDINAL (kN)	0	0	0	0
	TRANSVERSE (kN)	0	0	0	0
	LONGITUDINAL ROTATION (rad.)	0.00000	0.00000	0.00000	0.00000
	LATERAL ROTATION (rad.)	0.00000	0.00000	0.00017	0.00017

BEARING REACTIONS AND ROTATIONS - FACTORED DEAD LOAD

BEARING		SOUTHEAST	SOUTHWEST	NORTHEAST	NORTHWEST
GIRDER SELF WEIGHT - MAX	VERTICAL LOAD (kN)	990	1365	532	2160
	LONGITUDINAL (kN)	0	0	0	0
	TRANSVERSE (kN)	0	0	0	0
	LONGITUDINAL ROTATION (rad.)	0.00141	0.00118	0.00094	0.00094
	LATERAL ROTATION (rad.)	0.00071	0.00071	0.00094	0.00094
GIRDER SELF WEIGHT - MIN	VERTICAL LOAD (kN)	660	910	355	1440
	LONGITUDINAL (kN)	0	0	0	0
	TRANSVERSE (kN)	0	0	0	0
	LONGITUDINAL ROTATION (rad.)	0.00094	0.00079	0.00063	0.00063
	LATERAL ROTATION (rad.)	0.00047	0.00047	0.00063	0.00063
DEAD LOAD PHASE I - MAX	VERTICAL LOAD (kN)	1604	2388	747	4003
	LONGITUDINAL (kN)	0	0	76	0
	TRANSVERSE (kN)	119	0	76	0
	LONGITUDINAL ROTATION (rad.)	0.00283	0.00259	0.00188	0.00188
	LATERAL ROTATION (rad.)	0.00141	0.00141	0.00212	0.00188
DEAD LOAD PHASE I - MIN	VERTICAL LOAD (kN)	1069	1592	498	2669
	LONGITUDINAL (kN)	0	0	50	0
	TRANSVERSE (kN)	79	0	50	0
	LONGITUDINAL ROTATION (rad.)	0.00188	0.00173	0.00126	0.00126
	LATERAL ROTATION (rad.)	0.00094	0.00094	0.00141	0.00126
DEAD LOAD PHASE II - MAX	VERTICAL LOAD (kN)	2493	3603	1422	5547
	LONGITUDINAL (kN)	0	0	130	0
	TRANSVERSE (kN)	198	0	131	0
	LONGITUDINAL ROTATION (rad.)	0.00377	0.00353	0.00236	0.00236
	LATERAL ROTATION (rad.)	0.00188	0.00188	0.00283	0.00236
DEAD LOAD PHASE II - MIN	VERTICAL LOAD (kN)	1662	2402	948	3698
	LONGITUDINAL (kN)	0	0	86	0
	TRANSVERSE (kN)	132	0	87	0
	LONGITUDINAL ROTATION (rad.)	0.00251	0.00236	0.00157	0.00157
	LATERAL ROTATION (rad.)	0.00126	0.00126	0.00188	0.00157

BEARING REACTIONS AND ROTATIONS - FACTORED CONSTRUCTION LOADS

BEARING		SOUTHEAST	SOUTHWEST	NORTHEAST	NORTHWEST
PHASE I	VERTICAL LOAD (kN)	2222	3297	1109	5372
	LONGITUDINAL (kN)	0	0	68	0
	TRANSVERSE (kN)	109	0	70	0
	LONGITUDINAL ROTATION (rad.)	0.00358	0.00336	0.00244	0.00244
	LATERAL ROTATION (rad.)	0.00188	0.00188	0.00262	0.00244
PHASE II	VERTICAL LOAD (kN)	3046	4422	1734	6802
	LONGITUDINAL (kN)	0	0	118	0
	TRANSVERSE (kN)	182	0	122	0
	LONGITUDINAL ROTATION (rad.)	0.00445	0.00423	0.00297	0.00297
	LATERAL ROTATION (rad.)	0.00240	0.00223	0.00332	0.00297

BEARING REACTIONS AND ROTATIONS - FACTORED LOAD COMBINATIONS

BEARING		SOUTHEAST	SOUTHWEST	NORTHEAST	NORTHWEST
SLS 1 - MAX GRAVITY REACTION	VERTICAL LOAD (kN)	3186	4660	1991	6687
	LONGITUDINAL (kN)	0	0	96	0
	TRANSVERSE (kN)	146	0	101	0
	LONGITUDINAL ROTATION (rad.)	0.00541	0.00541	0.00367	0.00367
	LATERAL ROTATION (rad.)	0.00297	0.00279	0.00454	0.00401
SLS 1 - MIN GRAVITY REACTION	VERTICAL LOAD (kN)	2074	3582	1241	5462
	LONGITUDINAL (kN)	0	0	89	0
	TRANSVERSE (kN)	146	0	96	0
	LONGITUDINAL ROTATION (rad.)	0.00349	0.00349	0.00244	0.00349
	LATERAL ROTATION (rad.)	0.00192	0.00192	0.00279	0.00314
ULS 1 - MAX GRAVITY REACTION	VERTICAL LOAD (kN)	4504	6478	2938	9116
	LONGITUDINAL (kN)	0	0	116	0
	TRANSVERSE (kN)	175	0	122	0
	LONGITUDINAL ROTATION (rad.)	0.00785	0.00803	0.00541	0.00524
	LATERAL ROTATION (rad.)	0.00436	0.00419	0.00663	0.00576
ULS 1 - MIN GRAVITY REACTION	VERTICAL LOAD (kN)	1644	2897	728	4574
	LONGITUDINAL (kN)	0	0	88	0
	TRANSVERSE (kN)	132	0	94	0
	LONGITUDINAL ROTATION (rad.)	0.00279	0.00297	0.00209	0.00209
	LATERAL ROTATION (rad.)	0.00157	0.00157	0.00227	0.00192
ULS 2 - MAX GRAVITY REACTION	VERTICAL LOAD (kN)	4417	6354	2839	9000
	LONGITUDINAL (kN)	0	0	106	0
	TRANSVERSE (kN)	175	0	116	0
	LONGITUDINAL ROTATION (rad.)	0.00768	0.00785	0.00541	0.00524
	LATERAL ROTATION (rad.)	0.00436	0.00419	0.00663	0.00576
ULS 2 - MIN GRAVITY REACTION	VERTICAL LOAD (kN)	1661	2911	750	4578
	LONGITUDINAL (kN)	0	0	87	0
	TRANSVERSE (kN)	132	0	94	0
	LONGITUDINAL ROTATION (rad.)	0.00279	0.00297	0.00209	0.00209
	LATERAL ROTATION (rad.)	0.00157	0.00157	0.00227	0.00192
ULS 3 - MAX GRAVITY REACTION	VERTICAL LOAD (kN)	4303	6301	2760	8943
	LONGITUDINAL (kN)	0	0	335	0
	TRANSVERSE (kN)	681	0	450	0
	LONGITUDINAL ROTATION (rad.)	0.00750	0.00750	0.00524	0.00506
	LATERAL ROTATION (rad.)	0.00419	0.00401	0.00628	0.00559
ULS 3 - MIN GRAVITY REACTION	VERTICAL LOAD (kN)	1591	2736	726	4301
	LONGITUDINAL (kN)	0	0	306	0
	TRANSVERSE (kN)	637	0	420	0
	LONGITUDINAL ROTATION (rad.)	0.00262	0.00279	0.00192	0.00192
	LATERAL ROTATION (rad.)	0.00157	0.00157	0.00209	0.00192

BEARING		SOUTHEAST	SOUTHWEST	NORTHEAST	NORTHWEST
ULS 4 - MAX GRAVITY REACTION	VERTICAL LOAD (kN)	3062	5208	1778	7636
	LONGITUDINAL (kN)	0	0	595	0
	TRANSVERSE (kN)	1287	0	840	0
	LONGITUDINAL ROTATION (rad.)	0.00506	0.00524	0.00349	0.00349
	LATERAL ROTATION (rad.)	0.00279	0.00279	0.00401	0.00384
ULS 4 - MIN GRAVITY REACTION	VERTICAL LOAD (kN)	1591	2487	865	3743
	LONGITUDINAL (kN)	0	0	568	0
	TRANSVERSE (kN)	1243	0	811	0
	LONGITUDINAL ROTATION (rad.)	0.00227	0.00227	0.00175	0.00175
	LATERAL ROTATION (rad.)	0.00122	0.00122	0.00157	0.00157
ULS 5 - MAX GRAVITY REACTION	VERTICAL LOAD (kN)	2790	4668	1625	6896
	LONGITUDINAL (kN)	0	0	257	0
	TRANSVERSE (kN)	429	0	267	0
	LONGITUDINAL ROTATION (rad.)	0.00454	0.00454	0.00279	0.00297
	LATERAL ROTATION (rad.)	0.00244	0.00244	0.00332	0.00297
ULS 5 - MIN GRAVITY REACTION	VERTICAL LOAD (kN)	1757	2963	940	4367
	LONGITUDINAL (kN)	0	0	215	0
	TRANSVERSE (kN)	129	0	222	0
	LONGITUDINAL ROTATION (rad.)	0.00297	0.00297	0.00192	0.00192
	LATERAL ROTATION (rad.)	0.00157	0.00157	0.00227	0.00209
ULS 7 - MAX GRAVITY REACTION	VERTICAL LOAD (kN)	2882	4973	1668	7274
	LONGITUDINAL (kN)	0	0	370	0
	TRANSVERSE (kN)	768	0	503	0
	LONGITUDINAL ROTATION (rad.)	0.00471	0.00489	0.00314	0.00332
	LATERAL ROTATION (rad.)	0.00244	0.00262	0.00367	0.00349
ULS 9 - MIN GRAVITY REACTION	VERTICAL LOAD (kN)	1759	2788	964	4173
	LONGITUDINAL (kN)	0	0	342	0
	TRANSVERSE (kN)	725	0	473	0
	LONGITUDINAL ROTATION (rad.)	0.00262	0.00262	0.00175	0.00175
	LATERAL ROTATION (rad.)	0.00140	0.00140	0.00192	0.00192
ULS 9 - DEAD LOAD	VERTICAL LOAD (kN)	2994	5025	1689	7417
	LONGITUDINAL (kN)	0	0	127	0
	TRANSVERSE (kN)	198	0	132	0
	LONGITUDINAL ROTATION (rad.)	0.00471	0.00489	0.00367	0.00332
	LATERAL ROTATION (rad.)	0.00262	0.00262	0.00314	0.00332