

PIER-50-7-140-50.OUT

06-NOV-09
13:16:51

GEORGIA DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION DIVISION - OFFICE OF BRIDGE & STRUCTURAL DESIGN
THE ANALYSIS AND DESIGN OF PIERS FOR BRIDGES - V 4.2.07 - AASHTO SPECS 1984 INTERIM
REVISED: JUNE 30, 2008
50' CURB-CURB; 7 BEAMS; 140' SPAN; 50' TALL; BRIDGE 2A ; PIER 8

PROB. NO. 0001

DESIGN NO.	NO. CAN	NO. COL	NO. LLC	SKEW D	ANG M	F'C S	FC PSI	N	FY PSI	FS PSI	DESIGN DATA EC KSI	ES KSI	CONC. STRAIN	Z FACT	* MAIN SIZE	* STR TOP	* CAP MAX	REINFORCING MAX	STEEL MIN	* MIN TOP	* * CL.	* * CAP MIN	* * CAP DEPTH	* * CAP BOT
D D D L	2	3	17	0-00-00		3500.	1400.	8.	60000.	24000.	3409.	29000.	0.0030	170.	11	5	13	13	11	2	2.00	4.00	3.00	2.00
COLUMN REINFORCING	MIN.P	MAX.P	CL.SP.	STEEL CLEAR	R MODE	KL COEF	OC	OF	CM	BD1	BD2	IMPACT %	SOIL KCF	WT KSF	ALL.S.P.	MIN PL	MAX SP	EDGE DIST	PILE DEPTH	REBAR CLEAR	ALL.PILE CAPACITY	ALL.PILE UPLIFT	PILE I	PILE P
	1.00	8.00	2.50	3.750	2	2.00	0.70	0.90	0.00	1.00	0.75	18.87	0.120	0.000	3.00	9.00	1.250	1.000	3.000	235.000	-9.999			

CAP DATA

CN	C	L	A	DE	BC	BE	DH	LH	XB1	XB2	XB3	XB4	XB5	XB6	XB7	XB8
11	L	11.000	2.500	4.000	5.000	5.000	2.000	8.500	7.374	5.374						
12	C	15.540	2.500	6.000	5.000		0.000	0.000	2.000	5.902	5.638					
13	3	SAME AS CAP SECTION 2														
14	4	SAME AS CANTILEVER 1														

COLUMN DATA

CN	P	I	T	S	HT	A	DT	BT	DB	BB	DL	FLEX	ND NB	SZ	ND NB	SZ	ND NB	SZ	SLOPE	EP	AP						
21	1	C	T		50.000	0.000	5.000	5.000	5.000	5.000	4.000	0.000	5	5	11	5	5	11	14	14	11	13	14	11	0.000	0.000	0.000
22	1	2	SAME AS COLUMN 1																								
23	1	3	SAME AS COLUMN 1																								

FOOTING DATA

CN	S/P	B	D	T	DEL.B	DEL.D	DEL.T	R.B/D	R.D/B	S.HT.	NP	SYM.	BP	DP	SET.
31	P	7.000	7.000	3.000	0.500	0.500	0.250	1.000	1.000	2.500	4	3	0.000	0.000	0.000
32	2	SAME AS FOOTING 1													
33	3	SAME AS FOOTING 1													

GROUP II WIND

SUPERSTRUCTURE TRANS.	AREA*STD. LONG.	WIND FT1	FT1 FL1	WIND ON SUPERSTRUCTURE FT2 FL2	FT3 FL3	FT4 FL4	FT5 FL5	INTENSITIES FT4 FL4	FT5 FL5	* WIND FORCE APT	ARM APL	* WIND ON PIER PT	PIER PL			
1365.	2730.	1	50	0	44	6	41	12	33	16	17	19	7.375	7.375	5.396	37.639

GROUP III WIND

STD. WIND FT1	* WIND ON SUPERSTRUCTURE FL1	INTENSITIES FT2 FL2	FT3 FL3	FT4 FL4	FT5 FL5	* STD. WIND FT1	* WIND ON LIVE LOAD FT2 FL2	INTENSITIES FT3 FL3	FT4 FL4	FT5 FL5	* LENGTHS OF TRANS.	OF LL LONGI.	* WIND ON LL APT	LL ARMS APL											
1	50	0	44	6	41	12	33	16	17	19	1	100	0	88	12	82	24	66	32	34	38	140.0	280.0	15.583	15.583

MISCELLANEOUS FORCES

CENTRI. FT	TRACTION FL	FORCE APT	AND ARMS APL	EXPANSION COEFFICIENT	SHRINKAGE COEFFICIENT	STREAM PT	FLOW PL
0.000	9.860	15.583	15.583	0.00018000	0.00044000	0.000	0.000

DEAD LOAD SUPERSTRUCTURE AND LIVE LOAD CASES

I.D.	NL	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
D.L.	0	270.172 270.172	0.000	310.118	0.000	310.118	0.000	310.118	0.000	310.118	0.000	310.118	0.000
LL 1	1	83.449 0.000	0.000	53.962	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LL 2	2	83.449 0.000	0.000	101.430	0.000	83.440	0.000	6.503	0.000	0.000	0.000	0.000	0.000
LL 3	3	83.449 0.000	0.000	101.430	0.000	109.661	0.000	89.943	0.000	27.750	0.000	0.000	0.000
LL 4	4	83.449 0.000	0.000	101.430	0.000	109.661	0.000	94.918	0.000	111.190	0.000	48.997	0.000
LL 5	1	0.000 83.449	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	53.962	0.000
LL 6	2	0.000 83.449	0.000	0.000	0.000	0.000	0.000	6.503	0.000	83.440	0.000	101.430	0.000
LL 7	3	0.000 83.449	0.000	0.000	0.000	27.750	0.000	89.943	0.000	109.661	0.000	101.430	0.000
LL 8	4	0.000 83.449	0.000	48.997	0.000	111.190	0.000	94.918	0.000	109.661	0.000	101.430	0.000
LL 9	1	0.000 0.000	0.000	0.000	0.000	26.985	0.000	83.440	0.000	26.985	0.000	0.000	0.000
LL10	2	0.000 0.000	0.000	48.232	0.000	110.426	0.000	89.179	0.000	26.985	0.000	0.000	0.000
LL11	3	0.000 0.000	0.000	48.232	0.000	110.426	0.000	94.918	0.000	110.426	0.000	48.232	0.000

DEAD LOAD SUPERSTRUCTURE AND LIVE LOAD CASES

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I.D.	NL	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
LL12	2	0.000 0.000	0.000	3.256	0.000	83.440	0.000	101.430	0.000	83.440	0.000	3.256	0.000
LL13	3	24.503 0.000	0.000	86.696	0.000	112.908	0.000	101.430	0.000	83.440	0.000	3.256	0.000
LL14	4	24.503 24.503	0.000	86.696	0.000	112.908	0.000	101.430	0.000	112.908	0.000	86.696	0.000
LL15	2	83.449 83.449	0.000	53.962	0.000	0.000	0.000	0.000	0.000	0.000	0.000	53.962	0.000
LL16	3	83.449 83.449	0.000	101.430	0.000	83.440	0.000	6.503	0.000	0.000	0.000	53.962	0.000
LL17	4	83.449 83.449	0.000	101.430	0.000	83.440	0.000	13.007	0.000	83.440	0.000	101.430	0.000

□ COLUMN MOMENTS(KIP-FEET), SHEARS(KIPS), REACTIONS(KIPS)

LOAD	COL	TRANSVERSE								LONGITUDINAL			
		PC	MT	V	MB	RF	ML	MR	MT	V	MB	MF	
UNIT F.AT CL.CAP	1	0.782	7.710	0.322	8.369	0.782	0.000	-7.710	1.333	0.333	16.667	16.667	
	2	0.000	8.886	0.357	8.956	0.000	-4.443	-4.443	1.333	0.333	16.667	16.667	
	3	-0.782	7.710	0.322	8.369	-0.782	-7.710	0.000	1.333	0.333	16.667	16.667	
EXPANSION OF CAP	1	14.042	145.476	6.081	158.559	14.042	0.000	-145.476	0.000	0.000	0.000	0.000	
	2	-28.084	0.000	0.000	0.000	-28.084	-72.738	72.738	0.000	0.000	0.000	0.000	
	3	14.042	-145.476	-6.081	-158.559	14.042	145.476	0.000	0.000	0.000	0.000	0.000	
SHRINKAGE OF CAP	1	-34.325	-355.609	-14.864	-387.589	-34.325	0.000	355.609	0.000	0.000	0.000	0.000	
	2	68.650	0.000	0.000	0.000	68.650	177.804	-177.804	0.000	0.000	0.000	0.000	
	3	-34.325	355.609	14.864	387.589	-34.325	-355.609	0.000	0.000	0.000	0.000	0.000	
DEAD LOAD TOTAL	1	934.648 1107.148	-233.218	-6.997	-116.609	1107.148	2212.436	-1979.217	0.000	0.000	0.000	0.000	
	2	447.748 620.248	0.000	0.000	0.000	620.248	54.691	-54.691	0.000	0.000	0.000	0.000	
	3	934.648 1107.148	233.218	6.997	116.609	1107.148	1979.217	-2212.436	0.000	0.000	0.000	0.000	
TRAC. FORCE 1 LN	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-64.363	-3.287	-215.549	-215.549	
	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-64.363	-3.287	-215.549	-215.549	
	3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-64.363	-3.287	-215.549	-215.549	
WIND ON SUBSTR.	1	4.220	41.605	1.735	45.157	4.220	0.000	-41.605	-50.185	-12.546	-627.317	-627.317	
	2	0.000	47.948	1.926	48.328	0.000	-23.974	-23.974	-50.185	-12.546	-627.317	-627.317	
	3	-4.220	41.605	1.735	45.157	-4.220	-41.605	0.000	-50.185	-12.546	-627.317	-627.317	
GROUP 2 WIND 1 1	1	73.791	567.840	23.683	616.312	73.791	0.000	-567.840	-50.185	-12.546	-627.317	-627.317	
	2	0.000	654.403	26.280	659.593	0.000	-327.202	-327.202	-50.185	-12.546	-627.317	-627.317	
	3	-73.791	567.840	23.683	616.312	-73.791	-567.840	0.000	-50.185	-12.546	-627.317	-627.317	
GROUP 2 WIND 1 2	1	73.791	567.840	23.683	616.312	73.791	0.000	-567.840	50.185	12.546	627.317	627.317	
	2	0.000	654.403	26.280	659.593	0.000	-327.202	-327.202	50.185	12.546	627.317	627.317	
	3	-73.791	567.840	23.683	616.312	-73.791	-567.840	0.000	50.185	12.546	627.317	627.317	
GROUP 2 WIND 2 1	1	65.443	504.692	21.049	547.773	65.443	0.000	-504.692	-112.293	-18.006	-940.584	-940.584	
	2	0.000	581.629	23.357	586.241	0.000	-290.814	-290.814	-112.293	-18.006	-940.584	-940.584	
	3	-65.443	504.692	21.049	547.773	-65.443	-504.692	0.000	-112.293	-18.006	-940.584	-940.584	
GROUP 2 WIND 2 2	1	65.443	504.692	21.049	547.773	65.443	0.000	-504.692	112.293	18.006	940.584	940.584	
	2	0.000	581.629	23.357	586.241	0.000	-290.814	-290.814	112.293	18.006	940.584	940.584	
	3	-65.443	504.692	21.049	547.773	-65.443	-504.692	0.000	112.293	18.006	940.584	940.584	
GROUP 2 WIND 3 1	1	61.268	473.118	19.732	513.504	61.268	0.000	-473.118	-174.400	-23.466	-1253.852	-1253.852	
	2	0.000	545.241	21.896	549.565	0.000	-272.621	-272.621	-174.400	-23.466	-1253.852	-1253.852	
	3	-61.268	473.118	19.732	513.504	-61.268	-473.118	0.000	-174.400	-23.466	-1253.852	-1253.852	
GROUP 2 WIND 3 2	1	61.268	473.118	19.732	513.504	61.268	0.000	-473.118	174.400	23.466	1253.852	1253.852	
	2	0.000	545.241	21.896	549.565	0.000	-272.621	-272.621	174.400	23.466	1253.852	1253.852	
	3	-61.268	473.118	19.732	513.504	-61.268	-473.118	0.000	174.400	23.466	1253.852	1253.852	

□ COLUMN MOMENTS(KIP-FEET), SHEARS(KIPS), REACTIONS(KIPS)

LOAD	COL	TRANSVERSE								LONGITUDINAL			
		PC	MT	V	MB	RF	ML	MR	MT	V	MB	MF	
GROUP 2 WIND 4 1	1	50.137	388.920	16.221	422.119	50.137	0.000	-388.920	-215.805	-27.106	-1462.697	-1462.697	
	2	0.000	448.208	17.999	451.763	0.000	-224.104	-224.104	-215.805	-27.106	-1462.697	-1462.697	
	3	-50.137	388.920	16.221	422.119	-50.137	-388.920	0.000	-215.805	-27.106	-1462.697	-1462.697	
GROUP 2 WIND 4 2	1	50.137	388.920	16.221	422.119	50.137	0.000	-388.920	215.805	27.106	1462.697	1462.697	
	2	0.000	448.208	17.999	451.763	0.000	-224.104	-224.104	215.805	27.106	1462.697	1462.697	
	3	-50.137	388.920	16.221	422.119	-50.137	-388.920	0.000	215.805	27.106	1462.697	1462.697	
GROUP 2 WIND 5 1	1	27.874	220.525	9.197	239.349	27.874	0.000	-220.525	-246.859	-29.836	-1619.330	-1619.330	
	2	0.000	254.143	10.206	256.158	0.000	-127.071	-127.071	-246.859	-29.836	-1619.330	-1619.330	
	3	-27.874	220.525	9.197	239.349	-27.874	-220.525	0.000	-246.859	-29.836	-1619.330	-1619.330	
GROUP 2 WIND 5 2	1	27.874	220.525	9.197	239.349	27.874	0.000	-220.525	246.859	29.836	1619.330	1619.330	
	2	0.000	254.143	10.206	256.158	0.000	-127.071	-127.071	246.859	29.836	1619.330	1619.330	
	3	-27.874	220.525	9.197	239.349	-27.874	-220.525	0.000	246.859	29.836	1619.330	1619.330	
GROUP 3 WIND 1 1	1	40.106	278.298	11.607	302.053	40.106	0.000	-278.298	-15.056	-3.764	-188.195	-188.195	
	2	0.000	320.722	12.880	323.266	0.000	-160.361	-160.361	-15.056	-3.764	-188.195	-188.195	
	3	-40.106	278.298	11.607	302.053	-40.106	-278.298	0.000	-15.056	-3.764	-188.195	-188.195	
GROUP 3 WIND 1 2	1	40.106	278.298	11.607	302.053	40.106	0.000	-278.298	15.056	3.764	188.195	188.195	
	2	0.000	320.722	12.880	323.266	0.000	-160.361	-160.361	15.056	3.764	188.195	188.195	
	3	-40.106	278.298	11.607	302.053	-40.106	-278.298	0.000	15.056	3.764	188.195	188.195	

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GROUP 3 WIND 2 1	1	35.445	246.400	10.277	267.433	35.445	0.000	-246.400	-55.621	-6.522	-355.628	-355.628
	2	0.000	283.962	11.404	286.214	0.000	-141.981	-141.981	-55.621	-6.522	-355.628	-355.628
	3	-35.445	246.400	10.277	267.433	-35.445	-246.400	0.000	-55.621	-6.522	-355.628	-355.628
GROUP 3 WIND 2 2	1	35.445	246.400	10.277	267.433	35.445	0.000	-246.400	55.621	6.522	355.628	355.628
	2	0.000	283.962	11.404	286.214	0.000	-141.981	-141.981	55.621	6.522	355.628	355.628
	3	-35.445	246.400	10.277	267.433	-35.445	-246.400	0.000	55.621	6.522	355.628	355.628
GROUP 3 WIND 3 1	1	33.114	230.451	9.611	250.122	33.114	0.000	-230.451	-96.186	-9.280	-523.061	-523.061
	2	0.000	265.581	10.665	267.688	0.000	-132.791	-132.791	-96.186	-9.280	-523.061	-523.061
	3	-33.114	230.451	9.611	250.122	-33.114	-230.451	0.000	-96.186	-9.280	-523.061	-523.061
GROUP 3 WIND 3 2	1	33.114	230.451	9.611	250.122	33.114	0.000	-230.451	96.186	9.280	523.061	523.061
	2	0.000	265.581	10.665	267.688	0.000	-132.791	-132.791	96.186	9.280	523.061	523.061
	3	-33.114	230.451	9.611	250.122	-33.114	-230.451	0.000	96.186	9.280	523.061	523.061
GROUP 3 WIND 4 1	1	26.900	187.920	7.838	203.961	26.900	0.000	-187.920	-123.230	-11.119	-634.684	-634.684
	2	0.000	216.567	8.697	218.285	0.000	-108.284	-108.284	-123.230	-11.119	-634.684	-634.684
	3	-26.900	187.920	7.838	203.961	-26.900	-187.920	0.000	-123.230	-11.119	-634.684	-634.684
GROUP 3 WIND 4 2	1	26.900	187.920	7.838	203.961	26.900	0.000	-187.920	123.230	11.119	634.684	634.684
	2	0.000	216.567	8.697	218.285	0.000	-108.284	-108.284	123.230	11.119	634.684	634.684
	3	-26.900	187.920	7.838	203.961	-26.900	-187.920	0.000	123.230	11.119	634.684	634.684
GROUP 3 WIND 5 1	1	14.471	102.859	4.290	111.639	14.471	0.000	-102.859	-143.512	-12.498	-718.400	-718.400
	2	0.000	118.539	4.760	119.479	0.000	-59.270	-59.270	-143.512	-12.498	-718.400	-718.400
	3	-14.471	102.859	4.290	111.639	-14.471	-102.859	0.000	-143.512	-12.498	-718.400	-718.400

□ COLUMN MOMENTS(KIP-FEET), SHEARS(KIPS), REACTIONS(KIPS)

LOAD	COL	TRANSVERSE *								LONGITUDINAL		
		PC	MT	V	MB	RF	ML	MR	MT	V	MB	MF
GROUP 3 WIND 5 2	1	14.471	102.859	4.290	111.639	14.471	0.000	-102.859	143.512	12.498	718.400	718.400
	2	0.000	118.539	4.760	119.479	0.000	-59.270	-59.270	143.512	12.498	718.400	718.400
	3	-14.471	102.859	4.290	111.639	-14.471	-102.859	0.000	143.512	12.498	718.400	718.400
LIVE LOAD LL 1	1	181.599	-84.368	-2.288	-30.034	181.599	615.353	-530.985	0.000	0.000	0.000	0.000
	2	-50.342	50.630	1.762	37.465	-50.342	-155.702	105.072	0.000	0.000	0.000	0.000
	3	6.154	9.438	0.526	16.869	6.154	-9.438	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL 2	1	263.566	-54.782	-1.456	-18.037	263.566	615.353	-560.571	0.000	0.000	0.000	0.000
	2	11.975	21.332	0.827	20.020	11.975	-24.908	3.576	0.000	0.000	0.000	0.000
	3	-0.719	14.743	0.629	16.725	-0.719	-14.743	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL 3	1	244.909	-42.524	-1.106	-12.798	244.909	553.818	-511.294	0.000	0.000	0.000	0.000
	2	118.365	19.682	0.760	18.305	118.365	44.953	-64.635	0.000	0.000	0.000	0.000
	3	7.736	5.913	0.347	11.421	7.736	-5.913	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL 4	1	198.937	-39.415	-0.999	-10.556	198.937	461.515	-422.100	0.000	0.000	0.000	0.000
	2	144.229	38.375	1.334	28.339	144.229	113.583	-151.958	0.000	0.000	0.000	0.000
	3	69.068	-17.262	-0.335	0.520	69.068	17.262	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL 5	1	6.154	-9.438	-0.526	-16.869	6.154	0.000	9.438	0.000	0.000	0.000	0.000
	2	-50.342	-50.630	-1.762	-37.465	-50.342	-105.072	155.702	0.000	0.000	0.000	0.000
	3	181.599	84.368	2.288	30.034	181.599	530.985	-615.353	0.000	0.000	0.000	0.000
LIVE LOAD LL 6	1	-0.719	-14.743	-0.629	-16.725	-0.719	0.000	14.743	0.000	0.000	0.000	0.000
	2	11.975	-21.332	-0.827	-20.020	11.975	-3.576	24.908	0.000	0.000	0.000	0.000
	3	263.566	54.782	1.456	18.037	263.566	560.571	-615.353	0.000	0.000	0.000	0.000
LIVE LOAD LL 7	1	7.736	-5.913	-0.347	-11.421	7.736	0.000	5.913	0.000	0.000	0.000	0.000
	2	118.365	-19.682	-0.760	-18.305	118.365	64.635	-44.953	0.000	0.000	0.000	0.000
	3	244.909	42.524	1.106	12.798	244.909	511.294	-553.818	0.000	0.000	0.000	0.000
LIVE LOAD LL 8	1	69.068	17.262	0.335	-0.520	69.068	0.000	-17.262	0.000	0.000	0.000	0.000
	2	144.229	-38.375	-1.334	-28.339	144.229	151.958	-113.583	0.000	0.000	0.000	0.000
	3	198.937	39.415	0.999	10.556	198.937	422.100	-461.515	0.000	0.000	0.000	0.000
LIVE LOAD LL 9	1	8.934	7.853	0.236	3.926	8.934	0.000	-7.853	0.000	0.000	0.000	0.000
	2	119.541	0.000	0.000	0.000	119.541	75.124	-75.124	0.000	0.000	0.000	0.000
	3	8.934	-7.853	-0.236	-3.926	8.934	7.853	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL10	1	91.665	37.439	1.067	15.923	91.665	0.000	-37.439	0.000	0.000	0.000	0.000
	2	181.095	-29.298	-0.935	-17.446	181.095	205.918	-176.620	0.000	0.000	0.000	0.000
	3	2.062	-2.548	-0.132	-4.071	2.062	2.548	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL11	1	76.313	28.921	0.868	14.461	76.313	0.000	-28.921	0.000	0.000	0.000	0.000
	2	218.384	0.000	0.000	0.000	218.384	276.674	-276.674	0.000	0.000	0.000	0.000
	3	76.313	-28.921	-0.868	-14.461	76.313	28.921	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL12	1	30.882	24.281	0.728	12.141	30.882	0.000	-24.281	0.000	0.000	0.000	0.000
	2	213.058	0.000	0.000	0.000	213.058	232.289	-232.289	0.000	0.000	0.000	0.000
	3	30.882	-24.281	-0.728	-12.141	30.882	24.281	0.000	0.000	0.000	0.000	0.000

□ COLUMN MOMENTS(KIP-FEET), SHEARS(KIPS), REACTIONS(KIPS)

LOAD	COL	TRANSVERSE *								LONGITUDINAL		
		PC	MT	V	MB	RF	ML	MR	MT	V	MB	MF
LIVE LOAD LL13	1	147.585	8.962	0.315	6.803	147.585	162.617	-171.578	0.000	0.000	0.000	0.000
	2	196.189	4.068	0.168	4.356	196.189	209.486	-213.553	0.000	0.000	0.000	0.000
	3	27.236	-17.673	-0.484	-6.515	27.236	17.673	0.000	0.000	0.000	0.000	0.000
LIVE LOAD LL14	1	122.523	3.985	0.120	1.992	122.523	135.514	-139.498	0.000	0.000	0.000	0.000
	2	167.188	0.000	0.000	0.000	167.188	178.316	-178.316	0.000	0.000	0.000	0.000
	3	122.523	-3.985	-0.120	-1.992	122.523	139.498	-135.514	0.000	0.000	0.000	0.000
LIVE LOAD LL15	1	187.753	-93.806	-2.814	-46.903	187.753	615.353	-521.547	0.000	0.000	0.000	0.000
	2	-100.685	0.000	0.000	0.000	-100.685	-260.773	260.773	0.000	0.000	0.000	0.000
	3	187.753	93.806	2.814	46.903	187.753	521.547	-615.353	0.000	0.000	0.000	0.000
LIVE LOAD LL16	1	242.748	-57.798	-1.784	-31.416	242.748	553.818	-496.020	0.000	0.000	0.000	0.000
	2	-34.531	26.368	-0.841	-15.701	-34.531	-116.982	143.350	0.000	0.000	0.000	0.000
	3	162.793	-89.200	2.626	42.083	162.793	464.618	-553.818	0.000	0.000	0.000	0.000

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LIVE LOAD LL17	1	197.135	-52.143	-1.564	-26.072	197.135	461.515	-409.371	0.000	0.000	0.000	0.000
	2	17.963	0.000	0.000	0.000	17.963	-21.364	21.364	0.000	0.000	0.000	0.000
	3	197.135	52.143	1.564	26.072	197.135	409.371	-461.515	0.000	0.000	0.000	0.000

CAP ANALYSIS AND DESIGN DATA

CAP MOMENTS AND SHEARS

POINT	MOMENTS(KIP-FEET)							SHEARS(KIPS)						
	D.L.TOT.	G1 MAX.+	G1 MAX.-	G2 MAX.+	G2 MAX.-	G3 MAX.+	G3 MAX.-	DL T.LT	DL T.RT	G1 + LT	G1 + RT	G1 - LT	G1 - RT	
P 1	-27.461	-27.461	-27.461	-27.461	-27.461	-27.461	-27.461	-15.650	-366.873	-15.650	-366.873	-15.650	-548.041	
P 2	-2073.294	-2073.294	-3046.890	-2073.294	-2073.294	-2073.294	-2656.286	-395.586	-395.586	-395.586	-395.586	-576.754	-576.754	
C 1L	-2876.167	-2876.167	-4212.098	-2876.167	-2876.167	-2876.167	-3676.125	-407.286		-407.286		-588.454		
C 1R	-2572.982	-2540.976	-3789.982	-1834.790	-3311.175	-2192.030	-3663.511		404.603		575.432		403.043	
P 4	-1775.476	-1668.169	-2736.379	-1187.034	-2363.919	-1422.826	-2639.262	392.903	392.903	563.732	563.732	391.343	391.343	
P 5	441.550	1105.379	46.843	588.081	295.018	910.867	133.383	358.376	-44.777	529.206	64.516	356.816	-190.218	
P 6	96.120	443.672	-215.888	371.732	-179.493	439.313	-225.788	-77.759	-77.759	31.534	31.534	-223.200	-223.200	
C 2L	-71.099	495.040	-671.757	354.263	-496.461	476.376	-639.244	-89.459		19.834		-234.900		
C 2R	-71.099	495.040	-671.757	354.263	-496.461	476.376	-639.244		89.459		233.785		-19.834	
P 8	96.120	443.672	-215.888	371.732	-179.493	439.312	-225.788	77.759	77.759	222.085	222.085	-31.534	-31.534	
P 9	441.550	958.535	46.843	588.081	295.018	822.936	133.383	44.777	-358.376	189.102	-356.816	-64.516	-529.206	
P10	-1775.476	-1672.618	-2736.379	-1187.034	-2363.919	-1425.489	-2639.262	-392.903	-392.903	-391.343	-391.343	-563.732	-563.732	
C 3L	-2572.982	-2540.976	-3789.982	-1834.790	-3311.175	-2192.030	-3663.511	-404.603		-403.043		-575.432		
C 3R	-2876.167	-2876.167	-4212.098	-2876.167	-2876.167	-2876.167	-3676.125		407.286		588.454		407.286	
P12	-2073.294	-2073.294	-3046.890	-2073.294	-2073.294	-2073.294	-2656.286	395.586	395.586	576.754	576.754	395.586	395.586	
P13	-27.461	-27.461	-27.461	-27.461	-27.461	-27.461	-27.461	366.873	15.650	548.041	15.650	366.873	15.650	

PT.	M+ UNF. K-FT.		M- UNF. K-FT.		TOP REINFORCE. AS NO.SIZE		BOT.REINFORCE. AS NO.SIZE		CAP DESIGN DATA LEFT STIRRUPS M.SP. AV/IN BAR&SPAC			RIGHT STIRRUPS M.SP. AV/IN BAR&SPAC			D IN.	FC PSI	PS %	FS/FF RATIO	FS/FZ RATIO
	P 1	-21.124	-21.124	3.12	2 # 11	3.12	2 # 11	0.00	0.000	#5@ 0.00	24.00	0.077	#5@ 8.01	58.24					
P 2	-1594.842	-2043.297	10.11	7 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00		0.26	0.532	1.177		
C 1	-1964.475	-2827.789	14.09	10 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00		0.38	0.671	1.023		
P 4	-1316.323	-1808.359	9.06	6 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00		0.23	0.661	1.274		
P 5	645.425	157.845	3.12	2 # 11	4.81	4 # 11	24.00	0.050	#5@12.40	0.00	0.000	#5@ 0.00	72.00		0.12	0.656	0.773		
P 6	234.027	-69.778	3.12	2 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00		0.11	0.592	0.000		
C 2	206.082	-331.365	3.12	2 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00		0.13	0.860	0.000		
PT.	M+ UNF. K-FT.	M- UNF. K-FT.	TOP REINFORCE. AS NO.SIZE	BOT.REINFORCE. AS NO.SIZE	CAP DESIGN DATA LEFT STIRRUPS M.SP. AV/IN BAR&SPAC			RIGHT STIRRUPS M.SP. AV/IN BAR&SPAC			D IN.	FC PSI	PS %	FS/FF RATIO	FS/FZ RATIO				
P 8	234.027	-69.778	3.12	2 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00		0.11	0.592	0.000		
P 9	577.786	157.845	3.12	2 # 11	4.17	3 # 11	0.00	0.000	#5@ 0.00	24.00	0.050	#5@12.40	72.00		0.10	0.766	1.010		
P10	-1318.373	-1808.359	9.06	6 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00		0.23	0.659	1.274		
C 3	-1964.475	-2827.789	14.09	10 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00		0.38	0.671	1.023		
P12	-1594.842	-2043.297	10.11	7 # 11	3.12	2 # 11	24.00	0.050	#5@12.40	24.00	0.050	#5@12.40	72.00		0.26	0.532	1.177		
P13	-21.124	-21.124	3.12	2 # 11	3.12	2 # 11	24.00	0.077	#5@ 8.01	0.00	0.000	#5@ 0.00	58.24		0.10	0.000	0.079		

NOTE: *** FS/FZ RATIO EXCEEDS 1.0! ***

COLUMN ANALYSIS AND DESIGN OUTPUT

CN	T B	CRITICAL COLUMN LOADS										MTU	MLU	PU/PM	B	D				
		GR	LLC	WC	R	E S	C F	S F	PF	MTF	MLF						PM	MTM	MLM	PU
1	T	1	LL	2	0.0				1787.2	-422.1	0.0	1787.2	1002.5	1437.2	5197.2	2918.4	4184.0	2.910	60.00	60.00
1	B	2		5.1				1475.5	159.6-2105.1	1475.5	795.5	2889.7	3046.0	1644.8	5974.8	2.067	60.00	60.00		
2	T	1	LL11	0.0				1056.2	0.0	0.0	1056.2	596.0	688.2	5565.3	3149.2	3636.5	5.276	60.00	60.00	
2	B	2		5.1				604.7	333.0-2105.1	604.7	351.7	2348.6	1401.3	815.9	5448.0	2.320	60.00	60.00		
3	T	1	LL	6	0.0			1787.2	422.1	0.0	1787.2	1002.5	1437.2	5197.2	2918.4	4184.0	2.910	60.00	60.00	
3	B	2		5.1	R			1475.5	-159.6	2105.1	1475.5	795.5	2889.7	3046.0	1644.8	5974.8	2.067	60.00	60.00	

CN	T B	COLUMN DESIGN DATA										DEL.T	DEL.L	CM	R	PHIC
		B FACE 1 NO.SIZE	B FACE 2 NO.SIZE	D FACE 3 NO.SIZE	D FACE 4 NO.SIZE	AS	PS	BD12	BD	SUMPU	SUMPC					
1	T	7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	1.00	0.756	3945.	36337.	1.122	1.608	1.000	2	0.70
1	B	7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	1.00	0.027	3349.	46146.	1.078	1.373	1.000	2	0.70
2	T	7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	1.00	0.000	4154.	36462.	1.129	1.303	1.000	2	0.70

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2	B	7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	0.75	0.000	2511.	47192.	1.056	1.116	1.000	2	0.70
3	T	7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	1.00	0.756	3945.	36337.	1.122	1.608	1.000	2	0.70
3	B	7 # 11	7 # 11	5 # 11	5 # 11	37.44	1.040	1.00	0.027	3349.	46146.	1.078	1.373	1.000	2	0.70

FOOTING 1 DESIGN LOADS

F G LLID	WC	ES	C	S	P	MT	VT	ML	VL	P4	P3	P2	P1	MTF	VBF	VPF	LOAD
3 2	4.1				1057.011	538.728	23.217-1462.697	-27.106	190.991	32.630	126.227	284.587	32.735	-0.211	12.831		MAX.P1
3 3 LL 8	5.1				1638.043	308.268	15.765-1774.563	-29.065	312.019	121.070	175.772	366.721	43.258	-0.274	19.969		MAX.MT
3 2	5.1R				1475.529	-159.562	-2.861 2105.129	38.787	321.667	93.822	119.691	347.536	36.986	-0.274	17.944		MAX.VT
3 3 LL 8	5.1R				1675.669	18.006	4.612 1774.563	29.065	342.296	151.346	156.245	347.195	40.003	-0.274	20.438		MAX.VP
3 3 LL 8	5.1R				1675.669	18.006	4.612 1774.563	29.065	342.296	151.346	156.245	347.195	84.236	-0.274	20.438		MAX.ML
3 2	5.1R				1475.529	-159.562	-2.861 2105.129	38.787	321.667	93.822	119.691	347.536	81.700	-0.274	17.944		MAX.VL
3 2	4.1				1057.011	538.728	23.217-1462.697	-27.106	190.991	32.630	126.227	284.587	32.735	-0.211	12.831		MAX.P3

FOOTING 1 ANALYSIS/DESIGN RESULTS

FOOTING SIZE			* BAR REINFORCEMENT STEEL						* SECTION CAPACITIES			
B	D	T	P1/PA	AS	NO.SIZE	SPAC.	PLACEMENT	MT.	VB	VP	DS	FC
9.000	9.000	3.000	0.969	0.59	27 # 4	@ 4.000	TOP TRAN	52.301	23.987	47.973	19.875	0.000
				0.95	15 # 7	@ 7.125	BOT.LONG	88.750	24.816	49.633	20.562	0.000

NUMBER OF PILES = 7 BP = 3.250 DP = 3.250

FOOTING 2 DESIGN SAME AS FOOTING 1

FOOTING 3 DESIGN SAME AS FOOTING 1