

20-OCT-09  
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GEORGIA DEPARTMENT OF TRANSPORTATION  
PRECONSTRUCTION DIVISION - OFFICE OF BRIDGE & STRUCTURAL DESIGN  
LIVE LOAD CASE PROGRAM  
REVISED: JUNE 26, 2008

PROB. NO. LL01

65.65' CURB-TO-CURB; 9 BEAMS; 138.50' AVERAGE SPAN

BRIDGE WIDTH	X1	X2	CENTER LINE DISTANCE	# OF BEAMS	REACTION FORCE	MAXIMUM # OF TRUCKS	# OF COLUMNS	COLUMN WIDTH	SKEW ANGLE
68.900	3.625	3.625	34.450	9	68.211	5	3	4.000	10

  

D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
3.626	7.706	7.706	7.706	7.706	7.706	7.706	7.706	7.706	7.706										

  

XCOL1	XCOL2	XCOL3	XCOL4	XCOL5
11.170	23.910	23.910		

LIVE LOAD CASE # 1 1 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.2215	83.321
2	0.7785	53.101
3	0.0000	0.000
4	0.0000	0.000
5	0.0000	0.000
6	0.0000	0.000
7	0.0000	0.000
8	0.0000	0.000
9	0.0000	0.000

LIVE LOAD CASE # 2 2 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.2215	83.321
2	1.4809	101.015
3	1.2214	83.312
4	0.0762	5.196
5	0.0000	0.000
6	0.0000	0.000
7	0.0000	0.000
8	0.0000	0.000
9	0.0000	0.000

LIVE LOAD CASE # 3 3 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	1.2215	83.321
2	1.4809	101.015
3	1.6261	110.920
4	1.2976	88.508
5	0.3739	25.502
6	0.0000	0.000
7	0.0000	0.000
8	0.0000	0.000
9	0.0000	0.000

LIVE LOAD CASE # 4 4 TRUCKS

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BEAM   WHEEL FRACTION   P-LOAD
1      1.2215          83.321
2      1.4809          101.015
3      1.6261          110.920
4      1.4046          95.811
5      1.5953          108.814
6      0.6716          45.807
7      0.0000          0.000
8      0.0000          0.000
9      0.0000          0.000
    
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LIVE LOAD CASE # 5            5 TRUCKS

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BEAM   WHEEL FRACTION   P-LOAD
1      1.2215          83.321
2      1.4809          101.015
3      1.6261          110.920
4      1.4046          95.811
5      1.5953          108.814
6      1.5117          103.113
7      1.1599          79.116
8      0.0000          0.000
9      0.0000          0.000
    
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LIVE LOAD CASE # 6            1 TRUCKS

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BEAM   WHEEL FRACTION   P-LOAD
1      0.0000          0.000
2      0.0000          0.000
3      0.0000          0.000
4      0.0000          0.000
5      0.0000          0.000
6      0.0000          0.000
7      0.0000          0.000
8      0.7785          53.101
9      1.2215          83.321
    
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LIVE LOAD CASE # 7            2 TRUCKS

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BEAM   WHEEL FRACTION   P-LOAD
1      0.0000          0.000
2      0.0000          0.000
3      0.0000          0.000
4      0.0000          0.000
5      0.0000          0.000
6      0.0762          5.196
7      1.2214          83.312
8      1.4809          101.015
9      1.2215          83.321
    
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LIVE LOAD CASE # 8            3 TRUCKS

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BEAM  WHEEL FRACTION  P-LOAD
1      0.0000      0.000
2      0.0000      0.000
3      0.0000      0.000
4      0.0000      0.000
5      0.3739      25.502
6      1.2976      88.508
7      1.6261     110.920
8      1.4809     101.015
9      1.2215      83.321
  
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LIVE LOAD CASE # 9                    4 TRUCKS

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BEAM  WHEEL FRACTION  P-LOAD
1      0.0000      0.000
2      0.0000      0.000
3      0.0000      0.000
4      0.6716      45.807
5      1.5953     108.814
6      1.4046      95.811
7      1.6261     110.920
8      1.4809     101.015
9      1.2215      83.321
  
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LIVE LOAD CASE # 10                    5 TRUCKS

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BEAM  WHEEL FRACTION  P-LOAD
1      0.0000      0.000
2      0.0000      0.000
3      1.1599      79.116
4      1.5117     103.113
5      1.5953     108.814
6      1.4046      95.811
7      1.6261     110.920
8      1.4809     101.015
9      1.2215      83.321
  
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LIVE LOAD CASE # 11                    1 TRUCKS

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BEAM  WHEEL FRACTION  P-LOAD
1      0.0000      0.000
2      0.0000      0.000
3      0.0000      0.000
4      0.3893      26.555
5      1.2214      83.312
6      0.3893      26.555
7      0.0000      0.000
8      0.0000      0.000
9      0.0000      0.000
  
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LIVE LOAD CASE # 12                    2 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.6870	46.861
4	1.6107	109.867
5	1.3130	89.561
6	0.3893	26.555
7	0.0000	0.000
8	0.0000	0.000
9	0.0000	0.000

LIVE LOAD CASE # 13 3 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.6870	46.861
4	1.6107	109.867
5	1.4046	95.811
6	1.6107	109.867
7	0.6870	46.861
8	0.0000	0.000
9	0.0000	0.000

LIVE LOAD CASE # 14 4 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	1.1908	81.223
3	1.4962	102.060
4	1.6107	109.867
5	1.4046	95.811
6	1.6107	109.867
7	0.6870	46.861
8	0.0000	0.000
9	0.0000	0.000

LIVE LOAD CASE # 15 5 TRUCKS

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BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	1.1908	81.223
3	1.4962	102.060
4	1.6107	109.867
5	1.4046	95.811
6	1.6107	109.867
7	1.4962	102.060
8	1.1908	81.223
9	0.0000	0.000

LIVE LOAD CASE # 16 2 TRUCKS

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BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000		0.000
2	0.0000		0.000
3	0.0382		2.602
4	1.2214		83.312
5	1.4809		101.015
6	1.2214		83.312
7	0.0382		2.602
8	0.0000		0.000
9	0.0000		0.000

LIVE LOAD CASE # 17 3 TRUCKS

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BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000		0.000
2	0.3358		22.908
3	1.2595		85.914
4	1.6642		113.514
5	1.4809		101.015
6	1.2214		83.312
7	0.0382		2.602
8	0.0000		0.000
9	0.0000		0.000

LIVE LOAD CASE # 18 4 TRUCKS

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BEAM	WHEEL	FRACTION	P-LOAD
1	0.0000		0.000
2	0.3358		22.908
3	1.2595		85.914
4	1.6642		113.514
5	1.4809		101.015
6	1.6642		113.514
7	1.2595		85.914
8	0.3358		22.908
9	0.0000		0.000

LIVE LOAD CASE # 19 5 TRUCKS

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BEAM	WHEEL	FRACTION	P-LOAD
1	0.6335		43.214
2	1.5572		106.220
3	1.4046		95.811
4	1.6642		113.514
5	1.4809		101.015
6	1.6642		113.514
7	1.2595		85.914
8	0.3358		22.908
9	0.0000		0.000

LIVE LOAD CASE # 20 2 TRUCKS

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I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I

BEAM   WHEEL FRACTION   P-LOAD
1      1.2215          83.321
2      0.7785          53.101
3      0.0000          0.000
4      0.0000          0.000
5      0.0000          0.000
6      0.0000          0.000
7      0.0000          0.000
8      0.7785          53.101
9      1.2215          83.321

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LIVE LOAD CASE # 21 3 TRUCKS

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I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I

BEAM   WHEEL FRACTION   P-LOAD
1      1.2215          83.321
2      1.4809          101.015
3      1.2214          83.312
4      0.0762          5.196
5      0.0000          0.000
6      0.0000          0.000
7      0.0000          0.000
8      0.7785          53.101
9      1.2215          83.321

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LIVE LOAD CASE # 22 4 TRUCKS

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I      I      I      I      I      I      I      I      I

BEAM   WHEEL FRACTION   P-LOAD
1      1.2215          83.321
2      1.4809          101.015
3      1.2214          83.312
4      0.0762          5.196
5      0.0000          0.000
6      0.0762          5.196
7      1.2214          83.312
8      1.4809          101.015
9      1.2215          83.321

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LIVE LOAD CASE # 23 5 TRUCKS

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I      I      I      I      I      I      I      I      I

BEAM   WHEEL FRACTION   P-LOAD
1      1.2215          83.321
2      1.4809          101.015
3      1.6261          110.920
4      1.2976          88.508
5      0.3739          25.502
6      0.0762          5.196
7      1.2214          83.312
8      1.4809          101.015
9      1.2215          83.321

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65.65' CURB-TO-CURB; 9 BEAMS; 138.50' AVERAGE SPAN

BRIDGE WIDTH	X1	X2	CENTER LINE DISTANCE			# OF BEAMS	REACTION FORCE		MAXIMUM # OF TRUCKS	# OF COLUMNS	COLUMN WIDTH	SKEW ANGLE																				
68.900	3.625	3.625	34.450			9	68.211		5	3	4.000	10	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
													3.626	7.706	7.706	7.706	7.706	7.706	7.706	7.706	7.706											
XCOL1		XCOL2		XCOL3		XCOL4		XCOL5																								
11.170		23.910		23.910																												
		NO. OF TRUCKS	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6	BEAM 7	BEAM 8	BEAM 9	BEAM 10																				
LL CASE 1	1	1	83.321	53.101	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																				
LL CASE 2	2	2	83.321	101.015	83.312	5.196	0.000	0.000	0.000	0.000	0.000	0.000																				
LL CASE 3	3	3	83.321	101.015	110.920	88.508	25.502	0.000	0.000	0.000	0.000	0.000																				
LL CASE 4	4	4	83.321	101.015	110.920	95.811	108.814	45.807	0.000	0.000	0.000	0.000																				
LL CASE 5	5	5	83.321	101.015	110.920	95.811	108.814	103.113	79.116	0.000	0.000	0.000																				
LL CASE 6	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	53.101	83.321	0.000																				
LL CASE 7	2	0.000	0.000	0.000	0.000	0.000	0.000	5.196	83.312	101.015	83.321	0.000																				
LL CASE 8	3	0.000	0.000	0.000	0.000	0.000	25.502	88.508	110.920	101.015	83.321	0.000																				
LL CASE 9	4	0.000	0.000	0.000	45.807	108.814	95.811	110.920	101.015	83.321	0.000	0.000																				
LL CASE 10	5	0.000	0.000	79.116	103.113	108.814	95.811	110.920	101.015	83.321	0.000	0.000																				
LL CASE 11	1	0.000	0.000	0.000	26.555	83.312	26.555	0.000	0.000	0.000	0.000	0.000																				
LL CASE 12	2	0.000	0.000	46.861	109.867	89.561	26.555	0.000	0.000	0.000	0.000	0.000																				
LL CASE 13	3	0.000	0.000	46.861	109.867	95.811	109.867	46.861	0.000	0.000	0.000	0.000																				
LL CASE 14	4	0.000	81.223	102.060	109.867	95.811	109.867	46.861	0.000	0.000	0.000	0.000																				
LL CASE 15	5	0.000	81.223	102.060	109.867	95.811	109.867	102.060	81.223	0.000	0.000	0.000																				
LL CASE 16	2	0.000	0.000	2.602	83.312	101.015	83.312	2.602	0.000	0.000	0.000	0.000																				
LL CASE 17	3	0.000	22.908	85.914	113.514	101.015	83.312	2.602	0.000	0.000	0.000	0.000																				
LL CASE 18	4	0.000	22.908	85.914	113.514	101.015	113.514	85.914	22.908	0.000	0.000	0.000																				
LL CASE 19	5	43.214	106.220	95.811	113.514	101.015	113.514	85.914	22.908	0.000	0.000	0.000																				
LL CASE 20	2	83.321	53.101	0.000	0.000	0.000	0.000	0.000	53.101	83.321	0.000	0.000																				
LL CASE 21	3	83.321	101.015	83.312	5.196	0.000	0.000	0.000	53.101	83.321	0.000	0.000																				
LL CASE 22	4	83.321	101.015	83.312	5.196	0.000	5.196	83.312	101.015	83.321	0.000	0.000																				
LL CASE 23	5	83.321	101.015	110.920	88.508	25.502	5.196	83.312	101.015	83.321	0.000	0.000																				

FOR PIER PROGRAM INPUT

61LL 1 1 83320	0	53101	0	0	0	0	0	0	0	0	0	0					
62 0	0	0															
61LL 2 2 83320	0101015	0	83311	5195	0	0	0	0	0	0	0	0					
62 0	0	0															
61LL 3 3 83320	0101015	0110920	88507	0	25501	0	0	0	0	0	0	0					
62 0	0	0															
61LL 4 4 83320	0101015	0110920	95810	0108813	0	45807	0	0	0	0	0	0					
62 0	0	0															
61LL 5 5 83320	0101015	0110920	95810	0108813	0103113	79116	0	0	0	0	0	0					
62 0	0	0															
61LL 6 1 0	0	0	0	0	0	0	0	0	0	0	0	0					
62 0	53101	0	83320	0	0	0	0	0	0	5195	83311	0					
61LL 7 2 0	0	0	0	0	0	0	0	0	5195	83311	0	0					
62 101015	0	83320	0	0	0	0	0	0	5195	83311	0	0					
61LL 8 3 0	0	0	0	0	0	0	25501	0	88507	110920	0	0					
62 101015	0	83320	0	0	0	0	25501	0	88507	110920	0	0					
61LL 9 4 0	0	0	0	0	45807	0108813	0	95810	110920	0	0	0					
62 101015	0	83320	0	0	45807	0108813	0	95810	110920	0	0	0					
61LL10 5 0	0	0	0	79116	103113	0108813	0	95810	110920	0	0	0					
62 101015	0	83320	0	79116	103113	0108813	0	95810	110920	0	0	0					
61LL11 1 0	0	0	0	0	26555	0	83311	0	26555	0	0	0					
62 0	0	0															
61LL12 2 0	0	0	0	46860	109866	0	89561	0	26555	0	0	0					
62 0	0	0															
61LL13 3 0	0	0	0	46860	109866	0	95810	0109866	46860	0	0	0					
62 0	0	0															
61LL14 4 0	0	81222	0102059	109866	0	95810	0109866	46860	0	0	0	0					
62 0	0	81222	0102059	109866	0	95810	0109866	46860	0	0	0	0					
61LL15 5 0	0	81222	0102059	109866	0	95810	0109866	102059	0	0	0	0					
62 81222	0	81222	0102059	109866	0	95810	0109866	102059	0	0	0	0					
61LL16 2 0	0	0	0	2602	83311	0101015	0	83311	2602	0	0	0					
62 0	0	0															
61LL17 3 0	0	22908	0	85914	113513	0101015	0	83311	2602	0	0	0					
62 0	0	22908	0	85914	113513	0101015	0	83311	2602	0	0	0					
61LL18 4 0	0	22908	0	85914	113513	0101015	0113513	85914	0	0	0	0					

										LL-66-9-139.OUT
62	22908	0	0							
61LL19	5 43213	0106220	0 95810113513	0101015	0113513	85914	0			
62	22908	0	0							
61LL20	2 83320	0 53101	0 0 0	0 0	0 0	0 0	0			
62	53101	0 83320								
61LL21	3 83320	0101015	0 83311 5195	0 0	0 0	0 0	0			
62	53101	0 83320								
61LL22	4 83320	0101015	0 83311 5195	0 0	0 5195	83311	0			
62	101015	0 83320								
61LL23	5 83320	0101015	0110920 88507	0 25501	0 5195	83311	0			
62	101015	0 83320								