

20-OCT-09
10:37:39

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

PROB. NO. LL01

69.50' CURB-TO-CURB; 10 BEAMS; 140.00' AVERAGE SPAN

BRIDGE WIDTH	X1	X2	CENTER LINE DISTANCE	# OF BEAMS	REACTION FORCE	MAXIMUM # OF TRUCKS	# OF COLUMNS	COLUMN WIDTH	SKEW ANGLE
72.750	3.625	3.625	36.375	10	68.733	5	3	4.000	0

D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
3.624	7.278	7.278	7.278	7.278	7.278	7.278	7.278	7.278	7.278										

XCOL1	XCOL2	XCOL3	XCOL4	XCOL5
11.000	25.375	25.375		

LIVE LOAD CASE # 1 1 TRUCKS

* *
* *
* *
*** **
* *

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

BEAM	WHEEL FRACTION	P-LOAD
1	1.1753	80.783
2	0.8247	56.683
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
10	0.0000	0.000

LIVE LOAD CASE # 2 2 TRUCKS

* * * *
* * * *
* * * *
*** ** * *
* * * *

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

BEAM	WHEEL FRACTION	P-LOAD
1	1.1753	80.783
2	1.4505	99.700
3	1.1756	80.802
4	0.1985	13.646
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
10	0.0000	0.000

LIVE LOAD CASE # 3 3 TRUCKS

* * * * *
* * * * *
* * * * *
*** ** * * *
* * * * *

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

BEAM	WHEEL FRACTION	P-LOAD
1	1.1753	80.783
2	1.4505	99.700
3	1.4275	98.113
4	1.3741	94.449
5	0.5725	39.353
6	0.0000	0.000
7	0.0000	0.000
8	0.0000	0.000
9	0.0000	0.000
10	0.0000	0.000

LIVE LOAD CASE # 4 4 TRUCKS

```

*   *   *   *   *   *   *   *
*   *   *   *   *   *   *   *
*   *   *   *   *   *   *   *
*** ** ** ** ** ** ** ** ** ** ** ** ** ** ** **
*   *   *   *   *   *   *   *

```

```

-----
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I

```

BEAM	WHEEL FRACTION	P-LOAD
1	1.1753	80.783
2	1.4505	99.700
3	1.4275	98.113
4	1.3741	94.449
5	1.5038	103.364
6	1.0687	73.455
7	0.0000	0.000
8	0.0000	0.000
9	0.0000	0.000
10	0.0000	0.000

□

LIVE LOAD CASE # 5 5 TRUCKS

```

*   *   *   *   *   *   *   *
*   *   *   *   *   *   *   *
*   *   *   *   *   *   *   *
*** ** ** ** ** ** ** ** ** ** ** ** ** **
*   *   *   *   *   *   *   *

```

```

-----
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I

```

BEAM	WHEEL FRACTION	P-LOAD
1	1.1753	80.783
2	1.4505	99.700
3	1.4275	98.113
4	1.3741	94.449
5	1.5038	103.364
6	1.5725	108.086
7	1.1756	80.802
8	0.3206	22.033
9	0.0000	0.000
10	0.0000	0.000

LIVE LOAD CASE # 6 1 TRUCKS

```

*   *
*   *
*   *
*** **
*   *

```

```

-----
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I

```

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	0.0000	0.000
9	0.8247	56.683
10	1.1753	80.783

□

LIVE LOAD CASE # 7 2 TRUCKS

```

*   *   *   *
*   *   *   *
*   *   *   *
*** ** ** **
*   *   *   *

```

```

-----
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I
I   I   I   I   I   I   I   I   I   I

```

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	0.1985	13.646
8	1.1756	80.802
9	1.4505	99.700

10 1.1753 80.783

LL-70-10-140.OUT

LIVE LOAD CASE # 8 3 TRUCKS

```

* * * * *
* * * * *
* * * * *
*** ** ** ** **
* * * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

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	0.5725	39.353
7	1.3741	94.449
8	1.4275	98.113
9	1.4505	99.700
10	1.1753	80.783

LIVE LOAD CASE # 9 4 TRUCKS

```

* * * * *
* * * * *
* * * * *
*** ** ** **^
* * * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

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	1.0687	73.455
6	1.5038	103.364
7	1.3741	94.449
8	1.4275	98.113
9	1.4505	99.700
10	1.1753	80.783

LIVE LOAD CASE # 10 5 TRUCKS

```

* * * * *
* * * * *
* * * * *
*** ** ** **^
* * * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.3206	22.033
4	1.1756	80.802
5	1.5725	108.086
6	1.5038	103.364
7	1.3741	94.449
8	1.4275	98.113
9	1.4505	99.700
10	1.1753	80.783

LIVE LOAD CASE # 11 1 TRUCKS

```

* *
* *
* *
*** **^
* *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.0000	0.000
4	0.4122	28.332
5	1.1756	80.802

6	0.4122	28.332
7	0.0000	0.000
8	0.0000	0.000
9	0.0000	0.000
10	0.0000	0.000

LIVE LOAD CASE # 12 2 TRUCKS

```

* * * *
* * * *
* * * *
*** ** ** **
* * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.7862	54.038
4	1.5878	109.134
5	1.2138	83.428
6	0.4122	28.332
7	0.0000	0.000
8	0.0000	0.000
9	0.0000	0.000
10	0.0000	0.000

LIVE LOAD CASE # 13 3 TRUCKS

```

* * * * *
* * * * *
* * * * *
*** ** ** ** ** ** **
* * * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.7862	54.038
4	1.5878	109.134
5	1.2520	86.053
6	1.5878	109.134
7	0.7862	54.038
8	0.0000	0.000
9	0.0000	0.000
10	0.0000	0.000

LIVE LOAD CASE # 14 4 TRUCKS

```

* * * * *
* * * * *
* * * * *
*** ** ** ** *
* * * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.1602	11.012
2	1.1756	80.802
3	1.4504	99.690
4	1.5878	109.134
5	1.2520	86.053
6	1.5878	109.134
7	0.7862	54.038
8	0.0000	0.000
9	0.0000	0.000
10	0.0000	0.000

LIVE LOAD CASE # 15 5 TRUCKS

```

* * * * *
* * * * *
* * * * *
*** ** ** ** *
* * * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.1602	11.012

2	1.1756	80.802
3	1.4504	99.690
4	1.5878	109.134
5	1.2520	86.053
6	1.5878	109.134
7	1.4504	99.690
8	1.1756	80.802
9	0.1602	11.012
10	0.0000	0.000

LIVE LOAD CASE # 16 2 TRUCKS

```

* * * *
* * * *
* * * *
*** ** ** **
* * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.0000	0.000
4	0.5992	41.185
5	1.4008	96.281
6	1.4008	96.281
7	0.5992	41.185
8	0.0000	0.000
9	0.0000	0.000
10	0.0000	0.000

LIVE LOAD CASE # 17 3 TRUCKS

```

* * * * *
* * * * *
* * * * *
*** ** ** ** ** ** ** **
* * * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	1.1220	77.119
4	1.4772	101.532
5	1.4008	96.281
6	1.4008	96.281
7	0.5992	41.185
8	0.0000	0.000
9	0.0000	0.000
10	0.0000	0.000

LIVE LOAD CASE # 18 4 TRUCKS

```

* * * * * *
* * * * * *
* * * * * *
*** ** ** ** *
* * * * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	1.1220	77.119
4	1.4772	101.532
5	1.4008	96.281
6	1.4008	96.281
7	1.4772	101.532
8	1.1220	77.119
9	0.0000	0.000
10	0.0000	0.000

LIVE LOAD CASE # 19 5 TRUCKS

```

* * * * * *
* * * * * *
* * * * * *
*** ** ** ** *
* * * * * *

```

```

-----
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I
I I I I I I I I I I

```

BEAM	WHEEL	FRACTION	P-LOAD
1	0.3472		23.865
2	1.1756		80.802
3	1.5992		109.918
4	1.4772		101.532
5	1.4008		96.281
6	1.4008		96.281
7	1.4772		101.532
8	1.1220		77.119
9	0.0000		0.000
10	0.0000		0.000

LIVE LOAD CASE # 20 2 TRUCKS

```

*      *
*      *
*      *
***   ***
*      *
-----
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I

```

BEAM	WHEEL	FRACTION	P-LOAD
1	1.1753		80.783
2	0.8247		56.683
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	0.8247		56.683
10	1.1753		80.783

LIVE LOAD CASE # 21 3 TRUCKS

```

*      *      *      *
*      *      *      *
*      *      *      *
***   ***   ***   ***
*      *      *      *
-----
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I

```

BEAM	WHEEL	FRACTION	P-LOAD
1	1.1753		80.783
2	1.4505		99.700
3	1.1756		80.802
4	0.1985		13.646
5	0.0000		0.000
6	0.0000		0.000
7	0.0000		0.000
8	0.0000		0.000
9	0.8247		56.683
10	1.1753		80.783

LIVE LOAD CASE # 22 4 TRUCKS

```

*      *      *      *
*      *      *      *
*      *      *      *
***   ***   ***   ***
*      *      *      *
-----
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I
I      I      I      I      I      I      I      I      I      I

```

BEAM	WHEEL	FRACTION	P-LOAD
1	1.1753		80.783
2	1.4505		99.700
3	1.1756		80.802
4	0.1985		13.646
5	0.0000		0.000
6	0.0000		0.000
7	0.1985		13.646
8	1.1756		80.802
9	1.4505		99.700
10	1.1753		80.783

LIVE LOAD CASE # 23 5 TRUCKS

```

*      *      *      *      *
*      *      *      *      *
*      *      *      *      *
***   ***   ***   ***   ***
*      *      *      *      *
-----

```

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

BEAM	WHEEL	FRACTION	P-LOAD
1		1.1753	80.783
2		1.4505	99.700
3		1.4275	98.113
4		1.3741	94.449
5		0.5725	39.353
6		0.0000	0.000
7		0.1985	13.646
8		1.1756	80.802
9		1.4505	99.700
10		1.1753	80.783

20-OCT-09
10:37:39

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

PROB. NO. LL01

69.50' CURB-TO-CURB; 10 BEAMS; 140.00' AVERAGE SPAN

BRIDGE WIDTH	X1	X2	CENTER LINE DISTANCE	# OF BEAMS	REACTION FORCE	MAXIMUM # OF TRUCKS	# OF COLUMNS	COLUMN WIDTH	SKEW ANGLE
72.750	3.625	3.625	36.375	10	68.733	5	3	4.000	0

D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
3.624	7.278	7.278	7.278	7.278	7.278	7.278	7.278	7.278	7.278										

XCOL1	XCOL2	XCOL3	XCOL4	XCOL5	NO. OF TRUCKS											
11.000	25.375	25.375			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	80.783	56.683	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
LL CASE 2	2	2	80.783	99.700	80.802	13.646	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
LL CASE 3	3	3	80.783	99.700	98.113	94.449	39.353	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
LL CASE 4	4	4	80.783	99.700	98.113	94.449	103.364	73.455	0.000	0.000	0.000	0.000	0.000	0.000		
LL CASE 5	5	5	80.783	99.700	98.113	94.449	103.364	108.086	80.802	22.033	0.000	0.000	0.000	0.000		
LL CASE 6	1	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	56.683	80.783		
LL CASE 7	2	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13.646	80.802	99.700	80.783	80.783		
LL CASE 8	3	3	0.000	0.000	0.000	0.000	0.000	0.000	39.353	94.449	98.113	99.700	80.783	80.783		
LL CASE 9	4	4	0.000	0.000	0.000	0.000	0.000	73.455	103.364	94.449	98.113	99.700	80.783	80.783		
LL CASE 10	5	5	0.000	0.000	22.033	80.802	108.086	103.364	94.449	98.113	99.700	80.783	80.783	80.783		
LL CASE 11	1	1	0.000	0.000	0.000	28.332	80.802	28.332	0.000	0.000	0.000	0.000	0.000	0.000		
LL CASE 12	2	2	0.000	0.000	54.038	109.134	83.428	28.332	0.000	0.000	0.000	0.000	0.000	0.000		
LL CASE 13	3	3	0.000	0.000	54.038	109.134	86.053	109.134	54.038	0.000	0.000	0.000	0.000	0.000		
LL CASE 14	4	4	11.012	80.802	99.690	109.134	86.053	109.134	54.038	0.000	0.000	0.000	0.000	0.000		
LL CASE 15	5	5	11.012	80.802	99.690	109.134	86.053	109.134	99.690	80.802	11.012	0.000	0.000	0.000		
LL CASE 16	2	2	0.000	0.000	0.000	41.185	96.281	96.281	41.185	0.000	0.000	0.000	0.000	0.000		
LL CASE 17	3	3	0.000	0.000	77.119	101.532	96.281	96.281	41.185	0.000	0.000	0.000	0.000	0.000		
LL CASE 18	4	4	0.000	0.000	77.119	101.532	96.281	96.281	101.532	77.119	0.000	0.000	0.000	0.000		
LL CASE 19	5	5	23.865	80.802	109.918	101.532	96.281	96.281	101.532	77.119	0.000	0.000	0.000	0.000		
LL CASE 20	2	2	80.783	56.683	0.000	0.000	0.000	0.000	0.000	0.000	0.000	56.683	80.783	80.783		
LL CASE 21	3	3	80.783	99.700	80.802	13.646	0.000	0.000	0.000	0.000	0.000	56.683	80.783	80.783		
LL CASE 22	4	4	80.783	99.700	80.802	13.646	0.000	0.000	13.646	80.802	99.700	80.783	80.783	80.783		
LL CASE 23	5	5	80.783	99.700	98.113	94.449	39.353	0.000	13.646	80.802	99.700	80.783	80.783	80.783		

FOR PIER PROGRAM INPUT

61LL 1 1 80783	0	56682	0	0	0	0	0	0	0	0	0	0	0	0
62	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61LL 2 2 80783	0	99699	0	80802	13646	0	0	0	0	0	0	0	0	0
62	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61LL 3 3 80783	0	99699	0	98113	94448	39352	0	0	0	0	0	0	0	0
62	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61LL 4 4 80783	0	99699	0	98113	94448	103363	0	0	73454	0	0	0	0	0
62	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61LL 5 5 80783	0	99699	0	98113	94448	103363	0	0	108085	80802	22032	0	0	0
62	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61LL 6 1 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	0	56682	0	80783	0	0	0	0	0	0	0	0	0	0

LL-70-10-140.OUT											
61LL 7 2	0	0	0	0	0	0	0	0	0	0	0
62	0	99699	0	80783							0 13646 80802
61LL 8 3	0	0	0	0	0	0	0	0	0	0	0 39352 94448 98113
62	0	99699	0	80783							
61LL 9 4	0	0	0	0	0	0	73454	0	0	0	0103363 94448 98113
62	0	99699	0	80783							
61LL10 5	0	0	0	0	22032	80802	108085	0	0	0	0103363 94448 98113
62	0	99699	0	80783							
61LL11 1	0	0	0	0	0	28331	80802	0	0	0	0 28331 0 0
62	0	0	0	0							
61LL12 2	0	0	0	0	54038	109134	83427	0	0	0	0 28331 0 0
62	0	0	0	0							
61LL13 3	0	0	0	0	54038	109134	86053	0	0	0	0109134 54038 0
62	0	0	0	0							
61LL14 4 11011	0	80802	0	99690	109134	86053		0	0	0	0109134 54038 0
62	0	0	0	0							
61LL15 5 11011	0	80802	0	99690	109134	86053		0	0	0	0109134 99690 80802
62	0	11011	0	0							
61LL16 2	0	0	0	0	0	41185	96280	0	0	0	0 96280 41185 0
62	0	0	0	0							
61LL17 3	0	0	0	0	77119	101531	96280	0	0	0	0 96280 41185 0
62	0	0	0	0							
61LL18 4	0	0	0	0	77119	101531	96280	0	0	0	0 96280101531 77119
62	0	0	0	0							
61LL19 5 23864	0	80802	0	10991	8101531	96280		0	0	0	0 96280101531 77119
62	0	0	0	0							
61LL20 2 80783	0	56682	0	0	0	0		0	0	0	0 0 0 0
62	0	56682	0	80783							
61LL21 3 80783	0	99699	0	80802	13646	0		0	0	0	0 0 0 0
62	0	56682	0	80783							
61LL22 4 80783	0	99699	0	80802	13646	0		0	0	0	0 13646 80802
62	0	99699	0	80783							
61LL23 5 80783	0	99699	0	98113	94448	39352		0	0	0	0 13646 80802
62	0	99699	0	80783							