

19-OCT-09
16:48:42

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

PROB. NO. LL01

47.65' CURB-TO-CURB; 8 BEAMS; 139.50' AVERAGE SPAN

BRIDGE WIDTH	X1	X2	CENTER LINE DISTANCE	# OF BEAMS	REACTION FORCE	MAXIMUM # OF TRUCKS	# OF COLUMNS	COLUMN WIDTH	SKEW ANGLE
50.900	3.625	3.625	25.450	8	68.541	3	3	5.000	0

D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
3.126	6.378	6.378	6.378	6.378	6.378	6.378	6.378												

XCOL1	XCOL2	XCOL3	XCOL4	XCOL5
10.000	15.450	15.450		

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

BEAM	WHEEL FRACTION	P-LOAD
1	0.9218	63.179
2	1.0593	72.603
3	0.0190	1.300
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

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

BEAM	WHEEL FRACTION	P-LOAD
1	0.9218	63.179
2	1.4131	96.858
3	1.0782	73.903
4	0.5869	40.224
5	0.0000	0.000
6	0.0000	0.000
7	0.0000	0.000
8	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

BEAM	WHEEL FRACTION	P-LOAD
1	0.9218	63.179
2	1.4131	96.858
3	1.0782	73.903
4	1.3728	94.096
5	1.0593	72.603
6	0.1548	10.607
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 4 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

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       0.0187         1.279
7       1.0593        72.603
8       0.9221        63.200
    
```

LIVE LOAD CASE # 5 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

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       0.5865         40.202
6       1.0779         73.882
7       1.4135         96.880
8       0.9221         63.200
    
```

LIVE LOAD CASE # 6 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

BEAM   WHEEL FRACTION   P-LOAD
1       0.0000         0.000
2       0.0000         0.000
3       0.1544         10.585
4       1.0593        72.603
5       1.3728         94.096
6       1.0779         73.882
7       1.4135         96.880
8       0.9221         63.200
    
```

LIVE LOAD CASE # 7 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

BEAM   WHEEL FRACTION   P-LOAD
1       0.0000         0.000
2       0.0000         0.000
3       0.4704         32.239
4       1.0593        72.603
5       0.4704         32.239
6       0.0000         0.000
7       0.0000         0.000
8       0.0000         0.000
    
```

LIVE LOAD CASE # 8 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
    
```

BEAM	WHEEL FRACTION	P-LOAD
1	0.0383	2.622
2	1.0593	72.603
3	1.3728	94.096
4	1.0593	72.603
5	0.4704	32.239
6	0.0000	0.000
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 9 3 TRUCKS

```

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

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.0383	2.622
2	1.0593	72.603
3	1.3728	94.096
4	1.0593	72.603
5	1.3728	94.096
6	1.0593	72.603
7	0.0383	2.622
8	0.0000	0.000

LIVE LOAD CASE # 10 2 TRUCKS

```

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

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.0000	0.000
2	0.0000	0.000
3	0.7542	51.691
4	1.2455	85.370
5	1.2458	85.391
6	0.7545	51.712
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 11 3 TRUCKS

```

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

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.3220	22.073
2	1.0593	72.603
3	1.3728	94.096
4	1.2455	85.370
5	1.2458	85.391
6	0.7545	51.712
7	0.0000	0.000
8	0.0000	0.000

LIVE LOAD CASE # 12 2 TRUCKS

```

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

```

BEAM	WHEEL FRACTION	P-LOAD
1	0.3220	22.073
2	1.0593	72.603
3	1.3728	94.096
4	1.2455	85.370
5	1.2458	85.391
6	0.7545	51.712
7	0.0000	0.000
8	0.0000	0.000

1	0.9218	63.179
2	1.0593	72.603
3	0.0190	1.300
4	0.0000	0.000
5	0.0000	0.000
6	0.0187	1.279
7	1.0593	72.603
8	0.9221	63.200

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

BEAM	WHEEL FRACTION	P-LOAD
1	0.9218	63.179
2	1.4131	96.858
3	1.0782	73.903
4	0.5869	40.224
5	0.0000	0.000
6	0.0187	1.279
7	1.0593	72.603
8	0.9221	63.200

19-OCT-09
16:48:42

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

47.65' CURB-TO-CURB; 8 BEAMS; 139.50' AVERAGE SPAN

BRIDGE WIDTH	X1	X2	CENTER LINE DISTANCE	# OF BEAMS	REACTION FORCE	MAXIMUM # OF TRUCKS	# OF COLUMNS	COLUMN WIDTH	SKEW ANGLE										
50.900	3.625	3.625	25.450	8	68.541	3	3	5.000	0										
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20
3.126	6.378	6.378	6.378	6.378	6.378	6.378	6.378												

XCOL1	XCOL2	XCOL3	XCOL4	XCOL5
10.000	15.450	15.450		

	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	63.179	72.603	1.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 2	2	63.179	96.858	73.903	40.224	0.000	0.000	0.000	0.000	0.000	0.000
LL CASE 3	3	63.179	96.858	73.903	94.096	72.603	10.607	0.000	0.000	0.000	0.000
LL CASE 4	1	0.000	0.000	0.000	0.000	0.000	1.279	72.603	63.200	0.000	0.000
LL CASE 5	2	0.000	0.000	0.000	0.000	40.202	73.882	96.880	63.200	0.000	0.000
LL CASE 6	3	0.000	0.000	10.585	72.603	94.096	73.882	96.880	63.200	0.000	0.000
LL CASE 7	1	0.000	0.000	32.239	72.603	32.239	0.000	0.000	0.000	0.000	0.000
LL CASE 8	2	2.622	72.603	94.096	72.603	32.239	0.000	0.000	0.000	0.000	0.000
LL CASE 9	3	2.622	72.603	94.096	72.603	94.096	72.603	2.622	0.000	0.000	0.000
LL CASE 10	2	0.000	0.000	51.691	85.370	85.391	51.712	0.000	0.000	0.000	0.000
LL CASE 11	3	22.073	72.603	94.096	85.370	85.391	51.712	0.000	0.000	0.000	0.000
LL CASE 12	2	63.179	72.603	1.300	0.000	0.000	1.279	72.603	63.200	0.000	0.000
LL CASE 13	3	63.179	96.858	73.903	40.224	0.000	1.279	72.603	63.200	0.000	0.000

FOR PIER PROGRAM INPUT

61LL 1 1	63178	0	72603	0	1300	0	0	0	0	0	0
62	0	0									
61LL 2 2	63178	0	96857	0	73903	40224	0	0	0	0	0
62	0	0									
61LL 3 3	63178	0	96857	0	73903	94096	0	0	72603	10606	0
62	0	0									
61LL 4 1	0	0	0	0	0	0	0	0	1278	0	72603
62	0	63200									
61LL 5 2	0	0	0	0	0	0	0	0	40202	73881	0
62	0	63200									96879
61LL 6 3	0	0	0	0	10585	72603	0	0	94096	73881	0
62	0	63200									96879
61LL 7 1	0	0	0	0	32239	72603	0	0	32239	0	0
62	0	0									0
61LL 8 2	2622	0	72603	0	94096	72603	0	0	32239	0	0

62		0	0						
61LL	9 3	2622	0	72603	0	94096	72603	0	2622
62		0	0						
61LL10	2	0	0	0	0	51690	85369	0	0
62		0	0						
61LL11	3	22073	0	72603	0	94096	85369	0	0
62		0	0						
61LL12	2	63178	0	72603	0	1300	0	0	0
62		0	63200						1278
61LL13	3	63178	0	96857	0	73903	40224	0	0
62		0	63200						1278
									0
									72603
									72603