

3 @ 12 x 4 REINFORCED CONCRETE BOX BRIDGE

Maximum Fill Height ft.	Dimensions					Bars TST		Bars TSB		Bars BST		Bars BSB		Bars EWE		Bars EW		Bars IW		Bars LNT	Bars LND	Bars WS	Concrete CY/LF	Reinf. Steel LB/LF																		
	ST in.	SB in.	WT in.	IT in.	BW ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	No.			No.	No.																
No Fill	11.5	11	8	8	38.67	7	2	6	38.17	7	2	6	38.17	6	1	12	39.17	5	2	6	39.17	4	2	6	39.17	4	2	12	4.00	5	2	12	4.00	4	4	12	4.00	152	72	8	3.11	733
3	14	14	8	8	38.67	9	1	12	38.17	6	2	6	38.17	7	1	12	39.17	8	1	12	39.17	4	2	12	4.00	5	2	12	4.00	4	4	12	4.00	152	72	8	3.78	710				
5	13	13	8	8	38.67	7	2	6	38.17	6	2	6	38.17	8	1	12	39.17	6	2	6	39.17	4	2	12	4.00	5	2	12	4.00	4	4	12	4.00	190	0	8	3.54	751				
10	15	15	8	8	38.67	7	2	6	38.17	6	2	6	38.17	8	1	12	39.17	6	2	6	39.17	4	2	12	4.00	5	2	12	4.00	4	4	12	4.00	190	0	8	4.02	751				
20	16	16	8	8	38.67	4	3	12	12.67	9	2	6	38.17	9	2	6	39.17	4	3	12	12.67	4	2	12	4.00	5	2	12	4.00	4	4	12	4.00	190	0	8	4.26	835				
30	21	21	8	8	38.67	4	3	12	12.67	8	2	6	38.17	11	1	12	39.17	4	3	12	12.67	4	2	12	4.00	5	2	12	4.00	5	4	12	4.00	190	0	8	5.47	727				
40	26	26	8	8	38.67	4	3	12	12.67	8	2	6	38.17	11	1	12	39.17	4	3	12	12.67	4	2	12	4.00	5	2	12	4.00	5	4	12	4.00	190	0	8	6.68	727				
50	31	31	8	8	38.67	4	3	12	12.67	8	2	6	38.17	11	1	12	39.17	4	3	12	12.67	4	2	12	4.00	5	2	12	4.00	4	8	6	4.00	190	0	8	7.89	731				
60	34	34	8	8	38.67	4	3	12	12.67	9	2	6	38.17	9	2	6	39.17	4	3	12	12.67	4	2	12	4.00	5	2	12	4.00	7	4	12	4.00	190	0	8	8.62	857				

3 @ 12 x 5 REINFORCED CONCRETE BOX BRIDGE

Maximum Fill Height ft.	Dimensions					Bars TST		Bars TSB		Bars BST		Bars BSB		Bars EWE		Bars EW		Bars IW		Bars LNT	Bars LND	Bars WS	Concrete CY/LF	Reinf. Steel LB/LF														
	ST in.	SB in.	WT in.	IT in.	BW ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	No.			No.	No.												
No Fill	11.5	11	8	8	38.67	7	2	6	38.17	7	2	6	38.17	6	1	12	39.17	5	2	6	39.17	4	2	12	5.00	5	2	12	5.00	4	4	12	5.00	160	72	8	3.21	745
3	14	14	8	8	38.67	9	1	12	38.17	6	2	6	38.17	7	1	12	39.17	8	1	12	39.17	4	2	12	5.00	5	2	12	5.00	4	4	12	5.00	160	72	8	3.88	721
5	13	13	8	8	38.67	7	2	6	38.17	6	2	6	38.17	8	1	12	39.17	6	2	6	39.17	4	2	12	5.00	5	2	12	5.00	4	4	12	5.00	198	0	8	3.64	762
10	15	15	8	8	38.67	7	2	6	38.17	6	2	6	38.17	8	1	12	39.17	6	2	6	39.17	4	2	12	5.00	5	2	12	5.00	4	4	12	5.00	198	0	8	4.12	778
20	16	16	8	8	38.67	4	3	12	12.67	9	2	6	38.17	11	1	12	39.17	4	3	12	12.67	4	2	12	5.00	5	2	12	5.00	4	4	12	5.00	198	0	8	4.36	788
30	21	21	8	8	38.67	4	3	12	12.67	8	2	6	38.17	11	1	12	39.17	4	3	12	12.67	4	2	12	5.00	5	2	12	5.00	5	4	12	5.00	198	0	8	5.57	740
40	26	26	8	8	38.67	4	3	12	12.67	8	2	6	38.17	11	1	12	39.17	4	3	12	12.67	4	2	12	5.00	5	2	12	5.00	5	4	12	5.00	198	0	8	6.78	740
50	31	31	9	8	38.83	4	3	12	12.67	8	2	6	38.33	11	1	12	39.33	4	3	12	12.67	4	2	12	5.00	5	2	12	5.00	4	8	6	5.00	198	0	8	8.05	747
60	34	34	10	8	39.00	4	3	12	12.67	9	2	6	38.50	9	2	6	39.50	4	3	12	12.67	4	2	12	5.00	5	2	12	5.00	7	4	12	5.00	202	0	8	8.85	881

3 @ 12 x 6 REINFORCED CONCRETE BOX BRIDGE

Maximum Fill Height ft.	Dimensions					Bars TST		Bars TSB		Bars BST		Bars BSB		Bars EWE		Bars EW		Bars IW		Bars LNT	Bars LND	Bars WS	Concrete CY/LF	Reinf. Steel LB/LF														
	ST in.	SB in.	WT in.	IT in.	BW ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	Size	No.	Spacing in.	Length ft.	No.			No.	No.												
No Fill	11.5	11	8	8	38.67	7	2	6	38.17	7	2	6	38.17	6	1	12	39.17	5	2	6	39.17	4	2	12	6.00	5	2	12	6.00	4	4	12	6.00	168	72	8	3.31	756
3	14	14	8	8	38.67	9	1	12	38.17	6	2	6	38.17	7	1	12	39.17	8	1	12	39.17	4	2	12	6.00	5	2	12	6.00	4	4	12	6.00	168	72	8	3.98	733
5	13	13	8	8	38.67	7	2	6	38.17	6	2	6	38.17	8	1	12	39.17	6	2	6	39.17	4	2	12	6.00	5	2	12	6.00	4	4	12	6.00	206	0	8	3.74	774
10	15	15	8	8	38.67	7	2	6	38.17	6	2	6	38.17	5	2	6	39.17	6	2	6	39.17	4	2	12	6.00	5	2	12	6.00	4	4	12	6.00	206	0	8	4.22	751
20	16	16	8	8	38.67	4	3	12	12.67	9	2	6	38.17	11	1	12	39.17	4	3	12	12.67	4	2	12	6.00	5	2	12	6.00	4	4	12	6.00	206	0	8	4.46	799
30	21	21	8	8	38.67	4	3	12	12.67	8	2	6	38.17	11	1	12	39.17	4	3	12	12.67	4	2	12	6.00	6	2	12	6.00	5	4	12	6.00	206	0	8	5.67	758
40	26	26	9	8	38.83	4	3	12	12.67	8	2	6	38.33	11	1	12	39.33	4	3	12	12.67	4	2	12	6.00	5	2	12	6.00	5	4	12	6.00	206	0	8	6.94	754
50	31	31	10	8	39.00	4	3	12	12.67	8	2	6	38.50	11	1	12	39.50	4	3	12	12.67	4	2	12	6.00	5	2	12	6.00	4	8	6	6.00	210	0	8	8.23	766
60	34	34	11	8	39.17	4	3	12	12.67	9	2	6	38.67	9	2	6	39.67	4	3	12	12.67	4	2	12	6.00	5	2	12	6.00	7	4	12	6.00	210	0	8	9.03	900

Note: Maximum fill height shown in the table is measured from the bottom of the top slab. To obtain the total fill height from the flow line, add the height of the box.

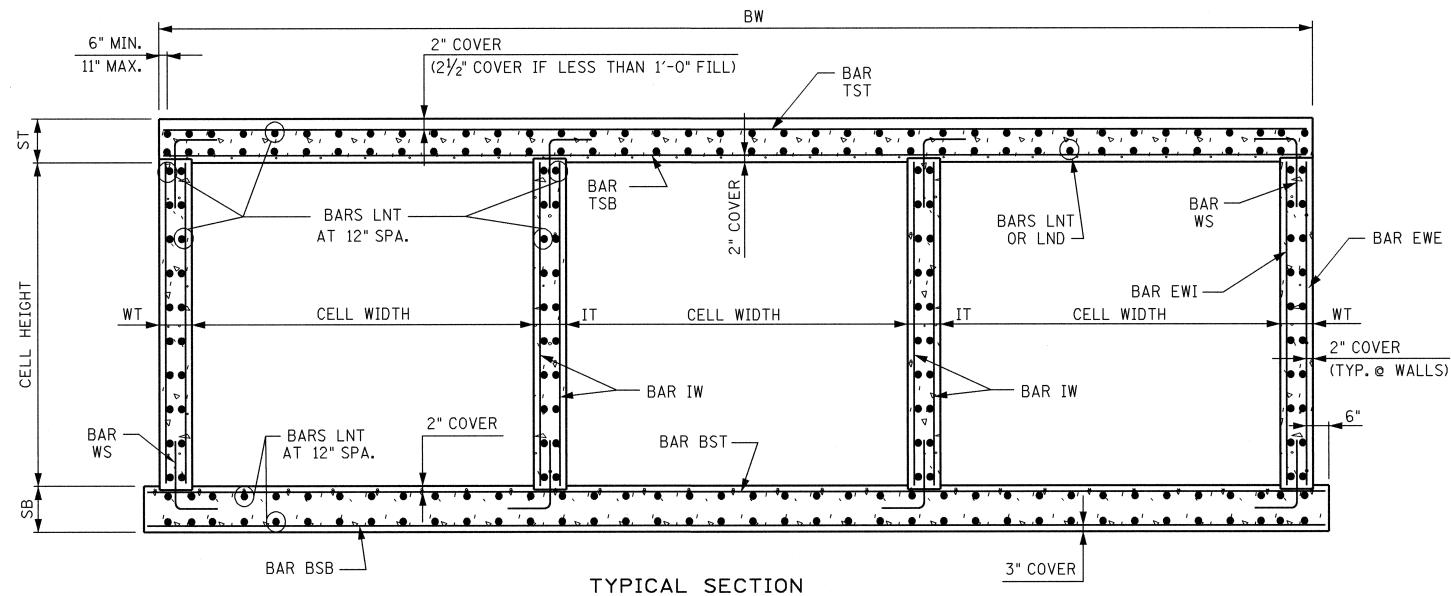
Note: When height of fill above the top slab is less than 1 foot, the top mat of reinforcing in the top slab shall be constructed with 2-1/2 inches of concrete cover.

The following bar information applies to all fill cases in the tables above:

Bars LNT Size = 4 Spacing = 12 in.

Bars LND Size = 4 Spacing = 6 in.

Bars WS Size = 8 Length = 5.00 ft. Spacing = 12 in.



NOTE: FOR DESCRIPTIONS OF BOX DIMENSIONS AND REINFORCING BAR DESIGNATIONS SEE STANDARD DRAWING NO. STD-17-5.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STANDARD REINFORCED CONCRETE
 BOX BRIDGE
 INTERIOR SECTION
 SPANS: 3 BARRELS AT 12'-0"
 CLEAR HEIGHTS 4'-0" THRU 6'-0"
 0' THRU 60' FILL
 2010

CORRECT *Edward P. Wasserman*
 ENGINEER OF STRUCTURES

DESIGNED BY: RLL/ALP DATE: 12-09
 DRAWN BY: KEVIN MARTINKO DATE: 1-10
 SUPERVISED BY: EPW/RLC DATE: 12-09
 CHECKED BY: RLL/ALP DATE: 2-10