STD-17-105¢106¢107¢108_3BARREL_BOX18'.DGN

CONST. NO. _____

PROJECT NO.	YEAR	SHEET NO.
	2010	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

3 @ 18 x 12 REINFORCED CONCRETE BOX BRIDGE

	Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	IT in.	BW ft.	Bars TST Size	No.	Spacing in.	Length ft.	Bars TSB Size	No.	Spacing in.	Length ft.	Bars BST Size	No.	Spacing in.	Length ft.	Bars BSB Size	No.	Spacing in.	Length ft.	Bars EWE Size	No.	Spacing in.	Length ft.	Bars EWI Size	No.	Spacing in.	Length ft.	Bars IW Size	No.	Spacing in.	Length ft.	Bars LNT No.	Bars LND No.	Bars WS No.	Concrete CY/LF	Reinf. Steel LB/LF
Continuous	No Fill	11.5	11	8	8	56.67	8	2	6	56.17	8	2	6	56.17	6	2	6	57.17	7	2	6	57.17	4	2	12	12.00	7	2	12	12.00	5	4	12	12.00	266	108	8	5.15	1477
	3	15	15	8	8	56.67	11	1	12	56.17	8	2	6	56.17	6	2	6	57.17	7	2	6	57.17	4	2	12	12.00	7	4	6	12.00	5	4	12	12.00	266	108	8	6.48	1525
	5	16	16	9	8	56.83	11	1	12	56.33	7	2	6	56.33	9	1	12	57.33	7	2	6	57.33	4	2	12	12.00	7	4	6	12.00	5	4	12	12.00	322	0	8	6.92	1445
	10	20	20	10	8	57.00	11	1	12	56.50	7	2	6	56.50	9	1	12	57.50	8	2	6	57.50	4	2	12	12.00	7	4	6	12.00	5	4	12	12.00	326	0	8	8.43	1522
Moment Break	20	20	21	12	8	57.33	4	3	12	18.66	11	2	6	56.83	10	2	6	57.83	4	3	12	18.66	4	2	12	12.00	8	4	6	12.00	5	4	12	12.00	326	0	8	8.80	1695
	30	29	30	15	8	57.83	4	3	12	18.66	10	2	6	57.33	10	2	6	58.33	4	3	12	18.66	4	2	12	12.00	7	4	6	12.00	6	4	12	12.00	326	0	8	12.33	1581
	40	36	37	17	8	58.17	4	3	12	18.66	10	2	6	57.67	10	2	6	58.67	4	3	12	18.66	4	2	12	12.00	7	4	6	12.00	5	8	6	12.00	330	0	8	15.07	1617
	50	41	42	19	9	58.67	4	3	12	18.66	10	2	6	58.17	10	2	6	59.17	4	3	12	18.66	4	2	12	12.00	7	4	6	12.00	5	8	6	12.00	330	0	8	17.23	1626
	60	46	47	20	9	58.83	4	3	12	18.66	10	2	6	58.33	10	2	6	59.33	4	3	12	18.66	4	2	12	12.00	7	4	6	12.00	6	8	6	12.00	330	0	8	19.18	1673

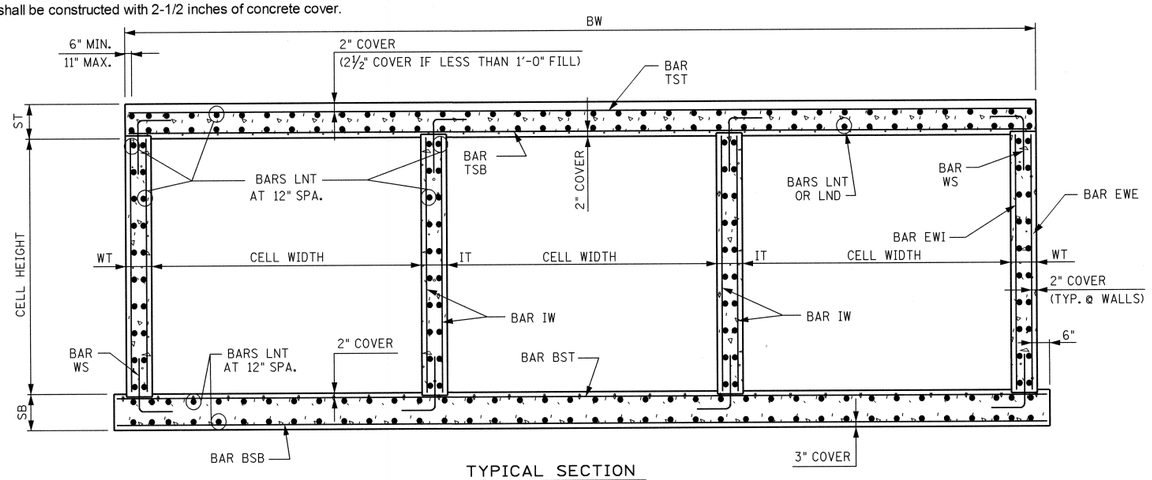
3 @ 18 x 13 REINFORCED CONCRETE BOX BRIDGE

	Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	IT in.	BW ft.	Bars TST Size	No.	Spacing in.	Length ft.	Bars TSB Size	No.	Spacing in.	Length ft.	Bars BST Size	No.	Spacing in.	Length ft.	Bars BSB Size	No.	Spacing in.	Length ft.	Bars EWE Size	No.	Spacing in.	Length ft.	Bars EWI Size	No.	Spacing in.	Length ft.	Bars IW Size	No.	Spacing in.	Length ft.	Bars LNT No.	Bars LND No.	Bars WS No.	Concrete CY/LF	Reinf. Steel LB/LF
Continuous	No Fill	11.5	11	8	8	56.67	8	2	6	56.17	8	2	6	56.17	8	1	12	57.17	7	2	6	57.17	4	2	12	13.00	7	4	6	13.00	4	8	6	13.00	274	108	8	5.25	1541
	3	15	15	9	8	56.83	11	1	12	56.33	8	2	6	56.33	9	1	12	57.33	7	2	6	57.33	4	2	12	13.00	7	4	6	13.00	4	8	6	13.00	274	108	8	6.67	1585
	5	16	16	9	8	56.83	11	1	12	56.33	7	2	6	56.33	9	1	12	57.33	8	2	6	57.33	4	2	12	13.00	8	4	6	13.00	4	8	6	13.00	330	0	8	7.03	1584
	10	20	20	10	8	57.00	11	1	12	56.50	7	2	6	56.50	9	1	12	57.50	8	2	6	57.50	4	2	12	13.00	9	4	6	13.00	4	8	6	13.00	334	0	8	8.54	1627
Moment Break	20	20	21	13	8	57.50	4	3	12	18.66	11	2	6	57.00	10	2	6	58.00	4	3	12	18.66	4	2	12	13.00	8	4	6	13.00	4	8	6	13.00	334	0	8	9.03	1735
	30	29	30	16	8	58.00	4	3	12	18.66	10	2	6	57.50	10	2	6	58.50	4	3	12	18.66	4	2	12	13.00	7	4	6	13.00	6	4	12	13.00	338	0	8	12.58	1607
	40	36	37	18	9	58.50	4	3	12	18.66	10	2	6	58.00	10	2	6	59.00	4	3	12	18.66	4	2	12	13.00	8	4	6	13.00	5	8	6	13.00	338	0	8	15.46	1679
	50	41	42	20	9	58.83	4	3	12	18.66	10	2	6	58.33	10	2	6	59.33	4	3	12	18.66	4	2	12	13.00	7	4	6	13.00	5	8	6	13.00	338	0	8	17.53	1652
	60	46	47	22	10	59.33	4	3	12	18.66	10	2	6	58.83	10	2	6	59.83	4	3	12	18.66	4	2	12	13.00	7	4	6	13.00	5	8	6	13.00	342	0	8	19.74	1663

3 @ 18 x 14 REINFORCED CONCRETE BOX BRIDGE

	Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	IT in.	BW ft.	Bars TST Size	No.	Spacing in.	Length ft.	Bars TSB Size	No.	Spacing in.	Length ft.	Bars BST Size	No.	Spacing in.	Length ft.	Bars BSB Size	No.	Spacing in.	Length ft.	Bars EWE Size	No.	Spacing in.	Length ft.	Bars EWI Size	No.	Spacing in.	Length ft.	Bars IW Size	No.	Spacing in.	Length ft.	Bars LNT No.	Bars LND No.	Bars WS No.	Concrete CY/LF	Reinf. Steel LB/LF
Continuous	No Fill	11.5	11	8	8	56.67	8	2	6	56.17	8	2	6	56.17	8	1	12	57.17	7	2	6	57.17	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	282	108	8	5.35	1606
	3	15	15	9	8	56.83	11	1	12	56.33	8	2	6	56.33	9	1	12	57.33	7	2	6	57.33	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	282	108	8	6.78	1649
	5	16	16	10	8	57.00	11	1	12	56.50	7	2	6	56.50	9	1	12	57.50	8	2	6	57.50	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	342	0	8	7.23	1621
	10	20	20	11	8	57.17	11	1	12	56.67	7	2	6	56.67	9	1	12	57.67	8	2	6	57.67	4	2	12	14.00	9	4	6	14.00	6	4	12	14.00	342	0	8	8.76	1665
Moment Break	20	20	21	14	8	57.67	4	3	12	18.66	11	2	6	57.17	10	2	6	58.17	4	3	12	18.66	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	342	0	8	9.26	1770
	30	29	30	17	8	58.17	4	3	12	18.66	10	2	6	57.67	10	2	6	58.67	4	3	12	18.66	4	2	12	14.00	8	4	6	14.00	6	4	12	14.00	346	0	8	12.85	1666
	40	36	37	19	9	58.67	4	3	12	18.66	10	2	6	58.17	10	2	6	59.17	4	3	12	18.66	4	2	12	14.00	8	4	6	14.00	5	8	6	14.00	346	0	8	15.75	1708
	50	41	43	22	10	59.33	4	3	12	18.66	10	2	6	58.83	10	2	6	59.83	4	3	12	18.66	4	2	12	14.00	8	4	6	14.00	5	8	6	14.00	350	0	8	18.28	1722
	60	46	47	24	10	59.67	4	3	12	18.66	10	2	6	59.17	10	4	6	32.67	4	3	12	18.66	4	2	12	14.00	7	4	6	14.00	6	8	6	14.00	350	0	8	20.21	1788

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.



TYPICAL SECTION

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 18'-0" CLEAR HEIGHTS 12'-0" THRU 14'-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

STD-17-107

ROAD DATA\STANDARDS\Tables\1-6-10\Official Culvert Files 1-6-10\18 Span\STD-17-105¢106¢107¢108_3barrel_box18'.dgn
3/2/2010