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.	Bar EWI Size	No.	Spacing in.	Length ft.	Bar 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	10.5	9	8	8	56.67	11	1	12	56.16	7	2	6	56.16	7	1	12	57.16	8	1	12	57.16	4	2	12	14.00	9	2	12	14.00	6	4	12	14.00	280	54	8	4.82	1345
	3	12	10	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	14.00	9	2	12	14.00	6	4	12	14.00	280	54	8	5.35	1506
	5	12	12	10	8	57.00	11	1	12	56.50	7	2	6	56.50	9	1	12	57.50	10	1	12	57.50	4	2	12	14.00	9	2	12	14.00	6	4	12	14.00	340	0	8	5.81	1505
	10	15	17	11	8	57.17	11	1	12	56.66	7	2	6	56.66	9	1	12	57.66	10	1	12	57.66	4	2	12	14.00	10	2	12	14.00	6	4	12	14.00	340	0	8	7.34	1533
Moment Break	20	18	21	14	8	57.67	4	3	12	18.66	11	2	6	57.16	10	2	6	58.16	4	3	12	18.66	4	2	12	14.00	7	4	6	14.00	6	4	12	14.00	340	0	8	8.90	1733
	30	28	30	17	8	58.17	4	3	12	18.66	10	2	6	57.66	10	2	6	58.66	4	3	12	18.66	4	2	12	14.00	7	4	6	14.00	6	4	12	14.00	344	0	8	12.66	1629
	40	35	37	19	8	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	14.00	9	2	12	14.00	7	4	12	14.00	344	0	8	15.44	1646
	50	40	43	22	8	59.00	4	3	12	18.66	10	2	6	58.50	10	2	6	59.50	4	3	12	18.66	4	2	12	14.00	9	2	12	14.00	8	4	12	14.00	348	0	8	17.83	1692
	60	45	47	24	8	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	6	4	6	14.00	6	8	6	14.00	348	0	8	19.75	1705

3 @ 18 x 15 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.	Bar EWI Size	No.	Spacing in.	Length ft.	Bar 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	10.5	9	9	8	56.83	11	1	12	56.33	7	2	6	56.33	7	1	12	57.33	8	1	12	57.33	4	2	12	15.00	9	2	12	15.00	7	4	12	15.00	288	54	8	5.02	1400
	3	12	11	10	8	57.00	11	1	12	56.50	7	2	6	56.50	8	1	12	57.50	9	1	12	57.50	4	2	12	15.00	9	2	12	15.00	7	4	12	15.00	291	54	8	5.74	1482
	5	12	12	10	8	57.00	11	1	12	56.50	7	2	6	56.50	9	1	12	57.50	10	1	12	57.50	4	2	12	15.00	11	2	12	15.00	7	4	12	15.00	348	0	8	5.92	1614
	10	15	17	12	8	57.33	11	1	12	56.83	7	2	6	56.83	9	1	12	57.83	10	1	12	57.83	4	2	12	15.00	11	2	12	15.00	7	4	12	15.00	348	0	8	7.56	1620
Moment Break	20	18	22	15	8	57.83	4	3	12	18.66	11	2	6	57.33	10	2	6	58.33	4	3	12	18.66	4	2	12	15.00	10	2	12	15.00	7	4	12	15.00	348	0	8	9.33	1796
	30	28	30	18	8	58.33	4	3	12	18.66	10	2	6	57.83	10	2	6	58.83	4	3	12	18.66	4	2	12	15.00	7	4	6	15.00	7	4	12	15.00	352	0	8	12.94	1685
	40	35	37	21	8	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	15.00	7	4	6	15.00	7	4	12	15.00	352	0	8	15.87	1694
	50	40	43	23	8	59.17	4	3	12	18.66	10	2	6	58.66	10	2	6	59.66	4	3	12	18.66	4	2	12	15.00	7	4	6	15.00	8	4	12	15.00	356	0	8	18.15	1740
	60	45	47	26	8	59.67	4	3	12	18.66	10	2	6	59.16	10	4	6	31.35	4	3	12	18.66	4	2	12	15.00	9	2	12	15.00	6	8	6	15.00	356	0	8	20.23	1770

3 @ 18 x 16 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.	Bar EWI Size	No.	Spacing in.	Length ft.	Bar 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	10.5	9	10	8	57.00	11	1	12	56.50	7	2	6	56.50	7	1	12	57.50	8	1	12	57.50	4	2	12	16.00	9	2	12	16.00	8	4	12	16.00	299	54	8	5.23	1466
	3	12	11	10	8	57.00	11	1	12	56.50	7	2	6	56.50	8	1	12	57.50	9	1	12	57.50	4	2	12	16.00	11	2	12	16.00	8	4	12	16.00	299	54	8	5.85	1605
	5	12	12	11	8	57.17	11	1	12	56.66	7	2	6	56.66	9	1	12	57.66	10	1	12	57.66	4	2	12	16.00	11	2	12	16.00	8	4	12	16.00	356	0	8	6.14	1683
	10	15	17	13	8	57.50	11	1	12	57.00	7	2	6	57.00	9	1	12	58.00	10	1	12	58.00	4	2	12	16.00	11	2	12	16.00	8	4	12	16.00	356	0	8	7.30	1689
Moment Break	20	18	22	16	8	58.00	4	3	12	18.66	11	2	6	57.50	10	2	6	58.50	4	3	12	18.66	4	2	12	16.00	11	2	12	16.00	8	4	12	16.00	360	0	8	9.59	1898
	30	28	31	19	8	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	16.00	10	2	12	16.00	8	4	12	16.00	360	0	8	13.41	1758
	40	35	37	22	8	59.00	4	3	12	18.66	10	2	6	58.50	10	2	6	59.50	4	3	12	18.66	4	2	12	16.00	7	4	6	16.00	8	4	12	16.00	364	0	8	16.18	1763
	50	40	43	25	8	59.50	4	3	12	18.66	10	2	6	59.00	10	2	6	60.00	4	3	12	18.66	4	2	12	16.00	7	4	6	16.00	8	4	12	16.00	364	0	8	18.63	1771
	60	45	48	27	8	59.83	4	3	12	18.66	10	2	6	59.33	10	4	6	31.43	4	3	12	18.66	4	2	12	16.00	7	4	6	16.00	6	8	6	16.00	364	0	8	20.77	1820

3 @ 18 x 17 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.	Bar EWI Size	No.	Spacing in.	Length ft.	Bar 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	10.5	9	10	8	57.00	11	1	12	56.50	7	2	6	56.50	5	2	6	57.50	6	2	6	57.50	4	2	12	17.00	11	2	12	17.00	6	8	6	17.00	307	54	8	5.34	1599
	3	12	11	11	8	57.17	11	1	12	56.66	7	2	6	56.66	8	1	12	57.66	7	2	6	57.66	4	2	12	17.00	11	2	12	17.00	6	8	6	17.00	307	54	8	6.08	1697
	5	12	12	12	8	57.33	11	1	12	56.83	7	2	6	56.83	9	1	12	57.83	11	1	12	57.83	4	2	12	17.00	11	2	12	17.00	6	8	6	17.00	364	0	8	6.38	1795
	10	15	17	14	8	57.67	11	1	12	57.16	7	2	6	57.16	7	2	6	58.16	11	1	12	58.16	4	2	12	17.00	11	2	12	17.00	6	8	6	17.00	364	0	8	8.05	1841
Moment Break	20	18	22	17	8	58.17	4	3	12	18.66	11	2	6	57.66	10	2	6	58.66	4	3	12	18.66	4	2	12	17.00	11	2	12	17.00	6	8	6	17.00	368	0	8	9.87	1952
	30	28	31	21	8	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	17.00	10	2	12	17.00	6	8	6	17.00	368	0	8	13.85	1813
	40	35	38	24	8	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	17.00	10	2	12	17.00	6	8	6	17.00	372	0	8	16.84	1824
	50	40	43	27	8	59.83	4	3	12	18.66	10	2	6	59.33	10	4	6	31.43	4	3	12	18.66	4	2	12	17.00	10	2	12	17.00	6	8	6	17.00	372	0	8	19.13	1854
	60	45	48	29	8	60.17	4	3	12	18.66	10	2	6	59.66	10	4	6	31.60	4	3	12	18.66	4	2	12	17.00	11	2	12	17.00	6	8	6	17.00	376	0	8	21.30	1897

3 @ 18 x 18 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.	Bar EWI Size	No.	Spacing in.	Length ft.	Bar 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	10.5	9	11	9	57.33	11	1	12	56.83	7	2	6	56.83	8	1	12	57.83	6	2	6	57.83	4	2	12	18.00	10	2	12	18.00	6	8	6	18.00	315	54	8	5.70	1631
	3	12	11	12	9	57.50	11	1	12	57.00	7	2	6	57.00	6	2	6	58.00	7	2	6	58.00	4	2	12	18.00	11	2	12	18.00	6	8	6	18.00	315	54	8	6.44	1752
	5	12	12	12	9	57.50	11	1	12	57.00	7	2	6	57.00	7	2	6	58.00	11	1	12	58.00	4	2	12	18.00	9	4	6	18.00	6	8	6	18.00	372	0	8	6.62	1921
	10	15	18	15	9	58.00	11	1	12	57.50	7	2	6	57.50	9	1	12	58.50	7	2	6	58.50	4	2	12	18.00	11	2	12	18.00	6	8	6	18.00	376	0	8	8.62	1768
Moment Break	20	18	22	18	9	58.50	4	3	12	18.75	11	2	6	58.00	10	2	6	59.00	4	3	12	18.75	4	2	12	18.00	9	4	6	18.00	6	8	6	18.00	376	0	8	10.29	2042
	30	28	31	22	9	59.17	4	3	12	18.75	10	2	6	58.66	10	2	6	59.66	4	3	12	18.75	4	2	12	18.00	11	2	12	18.00	6	8	6	18.00	380	0	8	14.31	1885
	40	35	38	25	9	59.67	4	3	12	18.75	10	2	6	59.16	10	4	6	31.35	4	3	12	18.75	4	2	12	18.00	11	2	12	18.00	6	8	6	18.00	380	0	8	17.33	1916
	50	40	43	28	9	60.17	4	3	12	18.75	10	2	6	59.66	10	4	6	31.50	4	3	12	18.75	4	2	12	18.00	11	2	12	18.00	6	8	6	18.00	384	0	8	19.65	1927
	60	45	48	31	9	60.67	4	3	12	18.75	10	4	6	31.35	10	4	6	31.85	4	3	12	18.75	4	2	12	18.00	11	2	12	18.00	6	8	6	18.00	384	0	8	22.00	1958

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 top slab is the riding surface (No Fill), the concrete cover to the top mat of reinforcing shall be 2-1/2 inches.

The following bar information applies to all fill cases in the table above:
Bars LNT Size = 4 Spacing = 12 in.
Bars LND Size = 5 Spacing = 12 in.
Bars WS Size = 8 Length = 5.00 ft. Spacing = 12 in.

DESIGNED BY DAN SHIKE DATE 1-00
DRAWN BY KEVIN MARTINKO DATE 3-00
SUPERVISED BY FIELDS & HOLLORAN DATE 3-00
CHECKED BY DAN SHIKE DATE 6-00

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DATE: 2-2001

CONST. NO. _____

PROJECT NO.	YEAR	SHEET NO.

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

NOTE: FOR DESCRIPTIONS OF BOX DIMENSIONS AND REINFORCING BAR DESIGNATIONS SEE STANDARD DRAWING NO. STD-15-4.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD REINFORCED CONCRETE BOX BRIDGE INTERIOR SECTION SPANS: 3 BARRELS AT 18'-0" CLEAR HEIGHTS 14'-0" THRU 18'-0" 0' THRU 60' FILL 2000

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

STD-15-90