CONST. NO. _____

PROJECT NO.	YEAR	SHEET NO.

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

3 @ 16 x 9 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.
Continuous	No Fill	10.5	8	8	8	50.67	7	2	6	50.16	7	2	6	50.16	7	1	12	51.16	8	1	12	51.16
Continuous	3	11	10	8	8	50.67	10	1	12	50.16	7	2	6	50.16	8	1	12	51.16	6	2	6	51.16
Continuous	5	11	11	8	8	50.67	11	1	12	50.16	9	1	12	50.16	6	2	6	51.16	7	2	6	51.16
Continuous	10	14	15	8	8	50.67	7	2	6	50.15	6	2	6	50.15	9	1	12	51.15	7	2	6	51.15
Moment Break	20	16	18	9	8	50.83	4	3	12	16.66	10	2	6	50.33	10	2	6	51.33	4	3	12	16.66
Moment Break	30	25	27	11	8	51.17	4	3	12	16.66	9	2	6	50.66	9	2	6	51.66	4	3	12	16.66
Moment Break	40	31	33	13	8	51.50	4	3	12	16.66	9	2	6	51.00	9	2	6	52.00	4	3	12	16.66
Moment Break	50	36	38	14	8	51.67	4	3	12	16.66	10	2	6	51.16	10	2	6	52.16	4	3	12	16.66
Moment Break	60	40	42	16	8	52.00	4	3	12	16.66	10	2	6	51.50	10	2	6	52.50	4	3	12	16.66

	Maximum Fill Height 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	4	2	12	9.00	4	2	12	9.00	4	4	12	9.00	222	48	8	3.80	1004
Continuous	3	4	2	12	9.00	5	2	12	9.00	4	4	12	9.00	222	48	8	4.20	1070
Continuous	5	4	2	12	9.00	5	2	12	9.00	4	4	12	9.00	272	0	8	4.36	1143
Continuous	10	4	2	12	9.00	7	2	12	9.00	4	4	12	9.00	272	0	8	5.47	1100
Moment Break	20	4	2	12	9.00	8	2	12	9.00	5	4	12	9.00	272	0	8	6.33	1328
Moment Break	30	4	2	12	9.00	7	2	12	9.00	5	4	12	9.00	276	0	8	9.35	1139
Moment Break	40	4	2	12	9.00	7	2	12	9.00	6	4	12	9.00	276	0	8	11.44	1160
Moment Break	50	4	2	12	9.00	6	2	12	9.00	7	4	12	9.00	276	0	8	13.13	1359
Moment Break	60	4	2	12	9.00	5	2	12	9.00	8	4	12	9.00	280	0	8	14.62	1382

3 @ 16 x 10 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.
Continuous	No Fill	10.5	8	8	8	50.67	7	2	6	50.16	7	2	6	50.16	7	1	12	51.16	8	1	12	51.16
Continuous	3	11	10	8	8	50.67	10	1	12	50.16	7	2	6	50.16	8	1	12	51.16	6	2	6	51.16
Continuous	5	11	11	8	8	50.67	11	1	12	50.16	9	1	12	50.16	6	2	6	51.16	7	2	6	51.16
Continuous	10	14	15	8	8	50.67	7	2	6	50.15	6	2	6	50.15	9	1	12	51.15	7	2	6	51.15
Moment Break	20	16	19	10	8	51.00	4	3	12	16.66	10	2	6	50.50	10	2	6	51.50	4	3	12	16.66
Moment Break	30	25	27	12	8	51.33	4	3	12	16.66	9	2	6	50.83	9	2	6	51.83	4	3	12	16.66
Moment Break	40	31	33	14	8	51.67	4	3	12	16.66	9	2	6	51.16	9	2	6	52.16	4	3	12	16.66
Moment Break	50	36	38	16	8	52.00	4	3	12	16.66	10	2	6	51.50	10	2	6	52.50	4	3	12	16.66
Moment Break	60	40	42	17	8	52.17	4	3	12	16.66	10	2	6	51.66	10	2	6	52.66	4	3	12	16.66

	Maximum Fill Height 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	4	2	12	10.00	5	2	12	10.00	4	4	12	10.00	230	48	8	3.90	1023
Continuous	3	4	2	12	10.00	4	4	6	10.00	4	4	12	10.00	230	48	8	4.30	1088
Continuous	5	4	2	12	10.00	6	2	12	10.00	4	4	12	10.00	280	0	8	4.46	1163
Continuous	10	4	2	12	10.00	6	4	6	10.00	4	4	12	10.00	280	0	8	5.56	1132
Moment Break	20	4	2	12	10.00	8	2	12	10.00	5	4	12	10.00	284	0	8	6.67	1349
Moment Break	30	4	2	12	10.00	8	2	12	10.00	5	4	12	10.00	284	0	8	9.55	1170
Moment Break	40	4	2	12	10.00	7	2	12	10.00	6	4	12	10.00	284	0	8	11.66	1180
Moment Break	50	4	2	12	10.00	7	2	12	10.00	7	4	12	10.00	288	0	8	13.47	1396
Moment Break	60	4	2	12	10.00	7	2	12	10.00	8	4	12	10.00	288	0	8	14.87	1424

3 @ 16 x 11 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.
Continuous	No Fill	10.5	8	8	8	50.67	7	2	6	50.16	7	2	6	50.16	7	1	12	51.16	8	1	12	51.16
Continuous	3	11	10	8	8	50.67	10	1	12	50.16	7	2	6	50.16	8	1	12	51.16	6	2	6	51.16
Continuous	5	11	11	8	8	50.67	11	1	12	50.16	9	1	12	50.16	6	2	6	51.16	7	2	6	51.16
Continuous	10	14	15	9	8	50.83	7	2	6	50.33	6	2	6	50.33	9	1	12	51.33	7	2	6	51.33
Moment Break	20	16	19	11	8	51.17	4	3	12	16.66	10	2	6	50.66	10	2	6	51.66	4	3	12	16.66
Moment Break	30	25	27	13	8	51.50	4	3	12	16.66	9	2	6	51.00	9	2	6	52.00	4	3	12	16.66
Moment Break	40	31	33	15	8	51.83	4	3	12	16.66	9	2	6	51.33	9	2	6	52.33	4	3	12	16.66
Moment Break	50	36	38	17	8	52.17	4	3	12	16.66	10	4	6	51.66	10	2	6	52.66	4	3	12	16.66
Moment Break	60	40	42	19	8	52.50	4	3	12	16.66	10	2	6	52.00	10	2	6	53.00	4	3	12	16.66

	Maximum Fill Height 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	4	2	12	11.00	5	2	12	11.00	4	4	12	11.00	238	48	8	4.00	1034
Continuous	3	4	2	12	11.00	6	2	12	11.00	4	4	12	11.00	238	48	8	4.40	1104
Continuous	5	4	2	12	11.00	8	2	12	11.00	4	4	12	11.00	288	0	8	4.56	1201
Continuous	10	4	2	12	11.00	6	4	6	11.00	4	4	12	11.00	288	0	8	5.75	1150
Moment Break	20	4	2	12	11.00	6	4	6	11.00	5	4	12	11.00	292	0	8	6.87	1375
Moment Break	30	4	2	12	11.00	6	4	6	11.00	5	4	12	11.00	292	0	8	9.77	1195
Moment Break	40	4	2	12	11.00	8	2	12	11.00	6	4	12	11.00	292	0	8	11.90	1212
Moment Break	50	4	2	12	11.00	7	4	12	11.00	7	4	12	11.00	296	0	8	13.72	1432
Moment Break	60	4	2	12	11.00	5	4	6	11.00	8	4	12	11.00	296	0	8	15.24	1453

3 @ 16 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.
Continuous	No Fill	10.5	8	8	8	50.66	7	2	6	50.16	7	2	6	50.16	7	1	12	51.16	8	1	12	51.16
Continuous	3	11	10	8	8	50.66	10	1	12	50.16	7	2	6	50.16	8	1	12	51.16	6	2	12	51.16
Continuous	5	11	11	9	8	50.83	11	1	12	50.33	9	1	12	50.33	6	2	6	51.33	7	2	6	51.33
Continuous	10	14	15	10	8	51.00	7	2	6	50.50	6	2	6	50.50	9	1	12	51.50	7	2	6	51.50
Moment Break	20	16	19	12	8	51.33	4	3	12	16.66	10	2	6	50.83	10	2	6	51.83	4	3	12	16.66
Moment Break	30	25	27	15	8	51.83	4	3	12	16.66	9	2	6	51.33	9	2	6	52.33	4	3	12	16.66
Moment Break	40	31	33	17	8	52.17	4	3	12	16.66	9	2	6	51.66	9	2	6	52.66	4	3	12	16.66
Moment Break	50	36	38	19	8	52.50	4	3	12	16.66	10	2	6	52.00	10	2	6	53.00	4	3	12	16.66
Moment Break	60	40	42	21	8	52.83	4	3	12	16.66	10	2	6	52.33	10	2	6	53.33	4	3	12	16.66

	Maximum Fill Height 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	4	2	12	12.00	6	2	12	12.00	5	4	12	12.00	246	48	8	4.10	1074
Continuous	3	4	2	12	12.00	8	2	12	12.00	5	4	12	12.00	246	48	8	4.49	1162
Continuous	5	4	2	12	12.00	8	2	12	12.00	5	4	12	12.00	256	0	8	4.74	1237
Continuous	10	4	2	12	12.00	6	4	6	12.00	5	4	12	12.00	300	0	8	5.94	1188
Moment Break	20	4	2	12	12.00	9	2	12	12.00	5	4	12	12.00	300	0	8	7.08	1404
Moment Break	30	4	2	12	12.00	8	2	12	12.00	5	4	12	12.00	300	0	8	10.10	1208
Moment Break	40	4	2	12	12.00	6	4	6	12.00	6	4	12	12.00	304	0	8	12.25	1246
Moment Break	50	4	2	12	12.00	8	2	12	12.00	7	4	12	12.00	304	0	8	14.10	1458
Moment Break	60	4	2	12	12.00	8	2	12	12.00	8	4	12	12.00	304	0	8	15.64	1494

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.

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 16'-0"
CLEAR HEIGHTS 9'-0" THRU 12'-0"
0' THRU 60' FILL
2000

CORRECT Edward P. Wasserman
ENGINEER OF STRUCTURES

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

STD-15-86

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