CONST. NO. _____

PROJECT NO.	YEAR	SHEET NO.
	2010	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

2 @ 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.	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	34.00	10	1	12	33.50	8	2	6	33.50	7	1	12	34.50	8	2	6	34.50	4	2	12	9.00	5	2	12	9.00	4	2	12	9.00	158	64	6	3.06	849
	3	14	14	8	8	34.00	7	2	6	33.50	7	2	6	33.50	7	1	12	34.50	7	2	6	34.50	4	2	12	9.00	6	2	12	9.00	4	2	12	9.00	158	64	6	3.65	765
	5	15	15	8	8	34.00	11	1	12	33.50	6	2	6	33.50	8	1	12	34.50	8	2	6	34.50	4	2	12	9.00	6	2	12	9.00	4	2	12	9.00	192	0	6	3.86	814
	10	18	18	8	8	34.00	9	2	6	33.50	6	2	6	33.50	6	2	6	34.50	8	2	6	34.50	4	2	12	9.00	6	4	6	9.00	4	2	12	9.00	192	0	6	4.50	903
Moment Break	20	19	19	9	8	34.17	4	2	12	16.66	10	2	6	33.67	10	2	6	34.67	4	2	12	16.66	4	2	12	9.00	7	4	6	9.00	5	2	12	9.00	192	0	6	4.79	945
	30	26	27	11	8	34.50	4	2	12	16.66	9	2	6	34.00	9	2	6	35.00	4	2	12	16.66	4	2	12	9.00	6	4	6	9.00	4	4	6	9.00	192	0	6	6.56	812
	40	32	33	13	8	34.83	4	2	12	16.66	9	2	6	34.33	9	2	6	35.33	4	2	12	16.66	4	2	12	9.00	6	4	6	9.00	7	2	12	9.00	192	0	6	8.03	829
	50	37	38	14	8	35.00	4	2	12	16.66	10	2	6	34.50	10	2	6	35.50	4	2	12	16.66	4	2	12	9.00	7	2	12	9.00	8	2	12	9.00	196	0	6	9.22	955
	60	41	42	16	8	35.33	4	2	12	16.66	10	2	6	34.83	10	2	6	35.83	4	2	12	16.66	4	2	12	9.00	6	2	12	9.00	6	4	6	9.00	196	0	6	10.29	957

2 @ 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.	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	34.00	10	1	12	33.50	8	2	6	33.50	7	1	12	34.50	8	2	6	34.50	4	2	12	10.00	6	2	12	10.00	4	2	12	10.00	164	64	6	3.14	867
	3	14	14	8	8	34.00	7	2	6	33.50	7	2	6	33.50	7	1	12	34.50	7	2	6	34.50	4	2	12	10.00	5	4	6	10.00	4	2	12	10.00	164	64	6	3.72	786
	5	15	15	8	8	34.00	11	1	12	33.50	6	2	6	33.50	8	1	12	34.50	8	2	6	34.50	4	2	12	10.00	7	2	12	10.00	4	2	12	10.00	198	0	6	3.94	835
	10	18	18	8	8	34.00	9	2	6	33.50	6	2	6	33.50	6	2	6	34.50	8	2	6	34.50	4	2	12	10.00	7	4	6	10.00	4	2	12	10.00	198	0	6	4.57	937
Moment Break	20	19	19	10	8	34.33	4	2	12	16.66	10	2	6	33.83	10	2	6	34.83	4	2	12	16.66	4	2	12	10.00	7	4	6	10.00	5	2	12	10.00	198	0	6	4.95	964
	30	26	27	12	8	34.67	4	2	12	16.66	9	2	6	34.17	9	2	6	35.17	4	2	12	16.66	4	2	12	10.00	7	4	6	10.00	4	4	6	10.00	198	0	6	6.74	850
	40	32	33	14	8	35.00	4	2	12	16.66	9	2	6	34.50	9	2	6	35.50	4	2	12	16.66	4	2	12	10.00	6	4	6	10.00	7	2	12	10.00	202	0	6	8.23	850
	50	37	38	16	8	35.33	4	2	12	16.66	10	2	6	34.83	10	2	6	35.83	4	2	12	16.66	4	2	12	10.00	6	4	6	10.00	8	2	12	10.00	202	0	6	9.53	995
	60	41	42	17	8	35.50	4	2	12	16.66	10	2	6	35.00	10	2	6	36.00	4	2	12	16.66	4	2	12	10.00	6	4	6	10.00	6	4	6	10.00	202	0	6	10.52	1004

2 @ 16 x 11 REINFORCED CONCRETE BOX BRIDGE

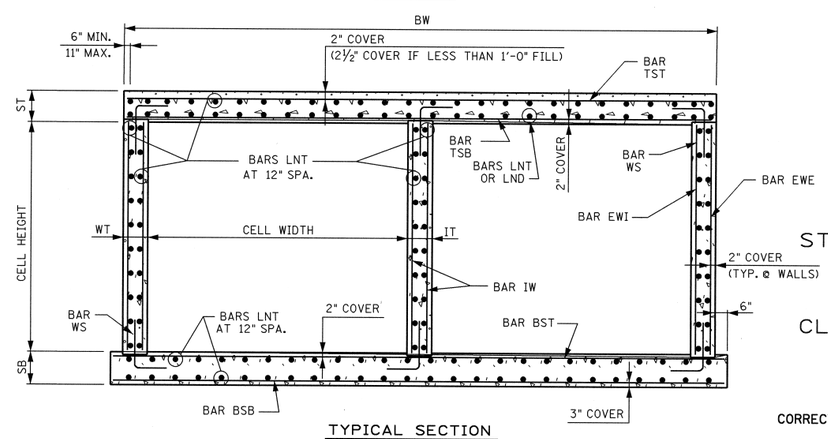
	Maximum Fill Height ft.	Dimensions ST in.	SB in.	WT in.	IT in.	BW ft.	Bars TST Size	No.	Spacing in.	Length ft.	Bars TSB Size	No.	Spacing in.	Length ft.	Bars BST Size	No.	Spacing in.	Length ft.	Bars BSB Size	No.	Spacing in.	Length ft.	Bars EWE Size	No.	Spacing in.	Length ft.	Bars EWI Size	No.	Spacing 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	34.00	10	1	12	33.50	8	2	6	33.50	7	1	12	34.50	8	2	6	34.50	4	2	12	11.00	6	2	12	11.00	4	2	12	11.00	170	64	6	3.21	877
	3	14	14	8	8	34.00	7	2	6	33.50	7	2	6	33.50	7	1	12	34.50	8	2	6	34.50	4	2	12	11.00	7	2	12	11.00	4	2	12	11.00	170	64	6	3.80	839
	5	15	15	8	8	34.00	11	1	12	33.50	6	2	6	33.50	8	1	12	34.50	8	2	6	34.50	4	2	12	11.00	7	4	6	11.00	4	2	12	11.00	204	0	6	4.01	891
	10	18	18	9	8	34.17	9	2	6	33.67	6	2	6	33.67	6	2	6	34.67	8	2	6	34.67	4	2	12	11.00	7	4	6	11.00	4	2	12	11.00	204	0	6	4.73	955
Moment Break	20	19	19	11	8	34.50	4	2	12	16.66	10	2	6	34.00	10	2	6	35.00	4	2	12	16.66	4	2	12	11.00	7	4	6	11.00	5	2	12	11.00	204	0	6	5.12	982
	30	26	27	13	8	34.83	4	2	12	16.66	9	2	6	34.33	9	2	6	35.33	4	2	12	16.66	4	2	12	11.00	7	4	6	11.00	4	4	6	11.00	204	0	6	6.94	869
	40	32	33	15	8	35.17	4	2	12	16.66	9	2	6	34.67	9	2	6	35.67	4	2	12	16.66	4	2	12	11.00	7	4	6	11.00	7	2	12	11.00	208	0	6	8.45	891
	50	37	38	17	8	35.50	4	2	12	16.66	10	2	6	35.00	10	2	6	36.00	4	2	12	16.66	4	2	12	11.00	7	4	6	11.00	8	2	12	11.00	208	0	6	9.76	1038
	60	41	42	19	9	35.92	4	2	12	16.66	10	2	6	35.42	10	2	6	36.42	4	2	12	16.66	4	2	12	11.00	6	4	6	11.00	5	4	6	11.00	208	0	6	10.93	1008

2 @ 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.	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	34.00	10	1	12	33.50	8	2	6	33.50	7	1	12	34.50	8	2	6	34.50	4	2	12	12.00	7	2	12	12.00	5	2	12	12.00	176	64	6	3.28	908
	3	14	14	8	8	34.00	7	2	6	33.50	7	2	6	33.50	7	1	12	34.50	8	2	6	34.50	4	2	12	12.00	7	4	6	12.00	5	2	12	12.00	176	64	6	3.87	908
	5	15	15	9	8	34.17	11	1	12	33.67	6	2	6	33.67	8	1	12	34.67	8	2	6	34.67	4	2	12	12.00	7	4	6	12.00	5	2	12	12.00	210	0	6	4.17	917
	10	18	18	10	8	34.33	9	2	6	33.83	6	2	6	33.83	6	2	6	34.83	9	2	6	34.83	4	2	12	12.00	8	4	6	12.00	5	2	12	12.00	210	0	6	4.91	1063
Moment Break	20	19	19	12	8	34.67	4	2	12	16.66	10	2	6	34.17	10	2	6	35.17	4	2	12	16.66	4	2	12	12.00	8	4	6	12.00	5	2	12	12.00	210	0	6	5.31	1031
	30	26	27	15	8	35.17	4	2	12	16.66	9	2	6	34.67	9	2	6	35.67	4	2	12	16.66	4	2	12	12.00	7	4	6	12.00	4	4	6	12.00	214	0	6	7.24	892
	40	32	33	17	8	35.50	4	2	12	16.66	9	2	6	35.00	9	2	6	36.00	4	2	12	16.66	4	2	12	12.00	7	4	6	12.00	7	2	12	12.00	214	0	6	8.78	914
	50	37	38	19	8	35.83	4	2	12	16.66	10	2	6	35.33	10	2	6	36.33	4	2	12	16.66	4	2	12	12.00	7	4	6	12.00	8	2	12	12.00	214	0	6	10.12	1063
	60	41	42	21	9	36.25	4	2	12	16.66	10	2	6	35.75	10	2	6	36.75	4	2	12	16.66	4	2	12	12.00	7	4	6	12.00	5	4	6	12.00	218	0	6	11.30	1058

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: 2 BARRELS AT 16'-0"
CLEAR HEIGHTS 9'-0" THRU 12'-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

Root File(s): standboxes\tables\1-6-10\Offsite Culvert Files 1-6-10\16' Span\STD-17-82&83&84_2barrel_box16'.dgn
Date: 2-8-2010
Time: 12:00:00 PM