

SPAN		HIGHT		REINFORCING STEEL											QUAN./LF		HEADWALLS							WINGWALL		
(FT.)	(FT.)	SIZE	SPACING C-C	a	b	c	d	e	f	g	LENGTH	NO. BL1 BARS	NO. BL2 BARS	REINFORCING STEEL (LBS./LONG. FT)	CONCRETE CLASS A4 (CY/LF)	REINFORCING STEEL (LBS./LF)	G HEADWALL LENGTH	HW1 SIZE	HW1 LENGTH	NO. HW2 BARS	NO. HW3 BARS	INLET CONCRETE CL. A4 (CY)	INLET REINFORCING STEEL (LBS)		OUTLET CONCRETE CL. A4 (CY)	OUTLET REINFORCING STEEL (LBS)
3	3	4	12"	2'- 8 7/8"	0'- 4 1/2"	1'- 6 5/8"	0'- 5 7/8"	0'- 3 3/4"	11'- 3 7/8"	1'- 5 7/8"	11'- 10"	44	16	42.388	0.989	109.333	13'- 2"	6	12'- 10"	2	8	1.827	102.932	1.808	77.103	A
3	4	4	12"	2'- 8 7/8"	0'- 4 1/2"	1'- 6 5/8"	0'- 5 7/8"	0'- 3 3/4"	11'- 3 7/8"	1'- 5 7/8"	11'- 10"	44	24	45.212	1.087	117.685	13'- 2"	6	12'- 10"	2	10	1.932	109.835	1.901	77.103	C
4	3	4	12"	3'- 6 1/2"	0'- 4 1/2"	1'- 11 1/2"	0'- 5 7/8"	0'- 3 3/4"	14'- 4"	2'- 1"	14'- 10"	56	16	52.408	1.136	129.262	16'- 2"	6	15'- 10"	2	8	2.131	120.956	2.121	95.127	A
4	4	4	12"	3'- 6 1/2"	0'- 4 1/2"	1'- 11 1/2"	0'- 5 7/8"	0'- 3 3/4"	14'- 4"	2'- 1"	14'- 10"	56	24	55.232	1.234	137.614	16'- 2"	6	15'- 10"	2	10	2.236	127.859	2.214	95.127	C
4	5	4	12"	3'- 6 1/2"	0'- 4 1/2"	1'- 11 1/2"	0'- 5 7/8"	0'- 3 3/4"	14'- 4"	2'- 1"	14'- 10"	56	32	58.056	1.332	145.966	16'- 2"	6	15'- 10"	2	12	2.341	134.761	2.307	95.127	E
4	6	4	12"	3'- 6 1/2"	0'- 4 1/2"	1'- 11 1/2"	0'- 5 7/8"	0'- 3 3/4"	14'- 4"	2'- 1"	14'- 10"	56	40	60.880	1.430	154.318	16'- 2"	6	15'- 10"	2	14	2.446	141.664	2.399	95.127	G
5	3	4	12"	4'- 4 1/8"	0'- 4 1/2"	2'- 4 1/4"	0'- 5 7/8"	0'- 3 3/4"	17'- 4"	2'- 8 1/4"	17'- 10"	68	16	62.428	1.281	162.105	19'- 2"	6	18'- 10"	2	8	2.434	138.980	2.435	113.151	A
5	4	4	12"	4'- 4 1/8"	0'- 4 1/2"	2'- 4 1/4"	0'- 5 7/8"	0'- 3 3/4"	17'- 4"	2'- 8 1/4"	17'- 10"	68	24	65.252	1.380	170.457	19'- 2"	6	18'- 10"	2	10	2.539	145.883	2.527	113.151	C
5	5	4	12"	4'- 4 1/8"	0'- 4 1/2"	2'- 4 1/4"	0'- 5 7/8"	0'- 3 3/4"	17'- 4"	2'- 8 1/4"	17'- 10"	68	32	68.076	1.478	173.387	19'- 2"	6	18'- 10"	2	12	2.644	152.785	2.620	113.151	E
5	6	4	12"	4'- 4 1/8"	0'- 4 1/2"	2'- 4 1/4"	0'- 5 7/8"	0'- 3 3/4"	17'- 4"	2'- 8 1/4"	17'- 10"	68	40	70.900	1.576	181.739	19'- 2"	6	18'- 10"	2	14	2.750	159.688	2.713	113.151	G
5	7	4	12"	4'- 4 1/8"	0'- 4 1/2"	2'- 4 1/4"	0'- 5 7/8"	0'- 3 3/4"	17'- 4"	2'- 8 1/4"	17'- 10"	68	48	73.724	1.674	195.513	19'- 2"	6	18'- 10"	2	16	2.855	166.591	2.806	113.151	I
6	4	4	12"	5'- 1 1/4"	0'- 5 1/2"	2'- 8"	0'- 7 1/4"	0'- 4 3/4"	20'- 4"	3'- 2 1/2"	21'- 0"	80	24	75.272	1.654	192.613	22'- 2"	6	21'- 10"	2	10	2.799	163.907	2.797	131.175	C
6	5	4	11"	5'- 1 1/4"	0'- 5 1/2"	2'- 8"	0'- 7 1/4"	0'- 4 3/4"	20'- 4"	3'- 2 1/2"	21'- 0"	80	32	78.096	1.751	211.035	22'- 2"	6	21'- 10"	2	12	2.904	170.809	2.889	131.175	E
6	6	4	11"	5'- 1 1/8"	0'- 5 3/4"	2'- 7 3/4"	0'- 7 5/8"	0'- 5"	20'- 4"	3'- 2 1/4"	21'- 0"	80	40	80.920	1.881	219.509	22'- 2"	6	21'- 10"	2	14	3.016	177.712	2.990	131.175	H
6	7	4	11"	5'- 1 1/8"	0'- 5 3/4"	2'- 7 3/4"	0'- 7 5/8"	0'- 5"	20'- 4"	3'- 2 1/4"	21'- 0"	80	48	83.744	1.979	227.982	22'- 2"	6	21'- 10"	2	16	3.121	184.615	3.082	131.175	J
6	8	4	11"	5'- 1 1/8"	0'- 5 3/4"	2'- 7 3/4"	0'- 7 5/8"	0'- 5"	20'- 4"	3'- 2 1/4"	21'- 0"	80	56	86.568	2.077	236.456	22'- 2"	6	21'- 10"	2	18	3.227	191.517	3.175	131.175	L
7	4	4	10"	5'- 10 1/8"	0'- 7"	2'- 11 3/8"	0'- 9 3/8"	0'- 6 1/4"	23'- 4 1/8"	3'- 8 1/8"	24'- 2"	92	24	85.292	2.036	232.126	25'- 2"	6	24'- 10"	2	10	3.031	181.931	3.039	149.199	D
7	6	4	10"	5'- 10"	0'- 7 1/4"	2'- 11 1/8"	0'- 9 3/8"	0'- 6 1/2"	23'- 4 1/8"	3'- 7 7/8"	24'- 3"	92	40	90.940	2.269	249.498	25'- 2"	6	24'- 10"	2	14	3.228	195.736	3.211	149.199	H
7	8	4	9"	5'- 9 7/8"	0'- 7 1/2"	2'- 10 7/8"	0'- 10 1/8"	0'- 6 3/4"	23'- 4 1/8"	3'- 7 5/8"	24'- 3"	92	56	96.588	2.501	283.643	25'- 2"	6	24'- 10"	2	18	3.425	209.541	3.383	149.199	L
7	10	4	9"	5'- 9 7/8"	0'- 7 1/2"	2'- 10 7/8"	0'- 10 1/8"	0'- 6 3/4"	23'- 4 1/8"	3'- 7 5/8"	24'- 3"	92	72	102.236	2.696	318.719	25'- 2"	6	24'- 10"	2	22	3.635	223.347	3.569	149.199	P
8	4	4	9"	6'- 7"	0'- 8 1/4"	3'- 2 7/8"	0'- 11 1/8"	0'- 7 1/2"	26'- 3 3/8"	4'- 2 1/8"	27'- 4"	104	24	95.312	2.431	301.472	28'- 2"	6	27'- 10"	2	10	3.233	199.955	3.251	167.223	D
8	6	4	9"	6'- 6 3/4"	0'- 8 1/2"	3'- 2 5/8"	0'- 11 1/2"	0'- 7 3/4"	26'- 3 3/8"	4'- 1 7/8"	27'- 5"	104	40	100.960	2.669	318.527	28'- 2"	6	27'- 10"	2	14	3.428	213.760	3.421	167.223	H
8	8	4	9"	6'- 6 3/4"	0'- 8 3/4"	3'- 2 3/8"	0'- 11 7/8"	0'- 8"	26'- 3 3/8"	4'- 1 5/8"	27'- 5"	104	56	106.608	2.906	336.456	28'- 2"	6	27'- 10"	2	18	3.622	227.565	3.591	167.223	L
8	10	4	9"	6'- 6 5/8"	0'- 9"	3'- 2 1/8"	1'- 1/4"	0'- 8 1/4"	26'- 3 3/8"	4'- 1 3/8"	27'- 6"	104	72	112.256	3.141	384.078	28'- 2"	6	27'- 10"	2	22	3.817	241.371	3.760	167.223	P
9	4	4	9"	7'- 4"	0'- 9 1/2"	3'- 6 1/2"	1'- 7/8"	0'- 8 3/4"	29'- 4"	4'- 8"	30'- 6"	116	24	105.332	2.874	358.090	31'- 2"	6	30'- 10"	2	10	3.412	217.979	3.440	185.247	D
9	6	4	9"	7'- 4"	0'- 9 1/2"	3'- 6 1/2"	1'- 7/8"	0'- 8 3/4"	29'- 4"	4'- 8"	30'- 6"	116	40	110.980	3.070	374.126	31'- 2"	6	30'- 10"	2	14	3.622	231.784	3.625	185.247	H
9	8	4	9"	7'- 3 3/8"	0'- 9 3/4"	3'- 6 1/4"	1'- 1 1/4"	0'- 9"	29'- 4"	4'- 7 3/4"	30'- 7"	116	56	116.628	3.312	392.166	31'- 2"	6	30'- 10"	2	18	3.814	245.589	3.793	185.247	L
9	10	4	9"	7'- 3 3/8"	0'- 9 3/4"	3'- 6 1/4"	1'- 1 1/4"	0'- 9"	29'- 4"	4'- 7 3/4"	30'- 7"	116	72	122.276	3.506	435.140	31'- 2"	6	30'- 10"	2	22	4.025	259.395	3.978	185.247	P
9	12	4	8"	7'- 3 3/4"	0'- 10"	3'- 6"	1'- 1 5/8"	0'- 9 1/4"	29'- 4"	4'- 7 1/2"	30'- 7"	116	88	127.924	3.743	522.598	31'- 2"	6	30'- 10"	2	26	4.217	273.200	4.146	185.247	T
10	4	5	9"	8'- 1"	0'- 10 7/8"	3'- 10"	1'- 2 3/8"	0'- 10"	32'- 4"	5'- 2"	33'- 8"	128	24	115.352	3.362	423.345	34'- 2"	6	33'- 10"	2	10	3.567	236.003	3.605	203.271	D
10	6	5	9"	8'- 7/8"	0'- 11 1/8"	3'- 9 3/4"	1'- 3 1/8"	0'- 10 1/4"	32'- 4"	5'- 1 3/4"	33'- 9"	128	40	121.000	3.608	440.235	34'- 2"	6	33'- 10"	2	14	3.757	249.808	3.771	203.271	H
10	8	5	9"	8'- 7/8"	0'- 11 1/8"	3'- 9 3/4"	1'- 3 1/8"	0'- 10 1/4"	32'- 4"	5'- 1 3/4"	33'- 9"	128	56	126.648	3.804	461.960	34'- 2"	6	33'- 10"	2	18	3.968	263.613	3.956	203.271	L
10	10	5	9"	8'- 7/8"	0'- 11 1/8"	3'- 9 3/4"	1'- 3 1/8"	0'- 10 1/4"	32'- 4"	5'- 1 3/4"	33'- 9"	128	72	132.296	3.999	500.639	34'- 2"	6	33'- 10"	2	22	4.178	277.419	4.141	203.271	P
10	12	5	9"	8'- 3/4"	0'- 11 3/8"	3'- 9 1/2"	1'- 3 1/2"	0'- 10 1/2"	32'- 4"	5'- 1 1/2"	33'- 9"	128	88	137.944	4.241	569.098	34'- 2"	6	33'- 10"	2	26	4.368	291.224	4.307	203.271	T
12	6	6	9"	9'- 6 3/8"	1'- 1 3/4"	4'- 4 7/8"	1'- 6 3/4"	1'- 3/4"	38'- 4 1/8"	6'- 1 5/8"	40'- 1"	152	40	141.040	4.726	648.700	40'- 2"	6	39'- 10"	2	14	4.013	285.856	4.046	239.319	I
12	8	6	9"	9'- 6 3/8"	1'- 1 3/4"	4'- 4 7/8"	1'- 6 3/4"	1'- 3/4"	38'- 4 1/8"	6'- 1 5/8"	40'- 1"	152	56	146.688	4.922	666.294	40'- 2"	6	39'- 10"	2	18	4.223	299.661	4.232	239.319	M
12	10	6	9"	9'- 6 3/4"	1'- 2"	4'- 4 5/8"	1'- 7 1/8"	1'- 1"	38'- 4 1/8"	6'- 1 3/8"	40'- 1"	152	72	152.336	5.176	710.159	40'- 2"	6	39'- 10"	2	22	4.409	313.467	4.392	239.319	Q
12	12	6	9"	9'- 6 3/4"	1'- 2"	4'- 4 5/8"	1'- 7 1/8"	1'- 1"	38'- 4 1/8"	6'- 1 3/8"	40'- 1"	152	88	157.984	5.369	778.792	40'- 2"	6	39'- 10"	2	26	4.619	327.272	4.578	239.319	U

SPECIFICATION REFERENCE

TRIPLE BOX CULVERTS

15 TO 20 FT. FILLS

VIRGINIA DEPARTMENT OF TRANSPORTATION



ROAD AND BRIDGE STANDARDS

REVISION DATE

SHEET 2 OF 2

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