

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. JT)	CONCRETE CLASS A4 (CY/LF)	REINFORCING STEEL (LBS./LF)	HEADWALL LENGTH	SIZE	HW I 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 3/8"	0'- 5 1/2"	1'- 5 5/8"	0'- 7 1/4"	0'- 4 3/4"	11'- 3 7/8"	1'- 4 7/8"	12'- 0"	44	16	42.388	1.061	110.447	13'- 2"	6	12'-10"	2	8	1.811	102.932	1.791	77.103	A
3	4	4	12"	2'- 8 3/8"	0'- 5 1/2"	1'- 5 5/8"	0'- 7 1/4"	0'- 4 3/4"	11'- 3 7/8"	1'- 4 7/8"	12'- 0"	44	24	45.212	1.159	118.799	13'- 2"	6	12'-10"	2	10	1.916	109.835	1.884	77.103	C
4	3	4	12"	3'- 5"	0'- 7 1/2"	1'- 8 1/2"	0'- 10 1/8"	0'- 6 3/4"	14'- 4"	1'- 10"	15'- 3"	56	16	52.408	1.407	132.491	16'- 2"	6	15'-10"	2	8	2.072	120.956	2.063	95.127	B
4	4	4	12"	3'- 4 7/8"	0'- 7 3/4"	1'- 8 1/4"	0'- 10 1/2"	0'- 7"	14'- 4"	1'- 9 3/4"	15'- 4"	56	24	55.232	1.528	141.177	16'- 2"	6	15'-10"	2	10	2.171	127.859	2.149	95.127	D
4	5	4	12"	3'- 5"	0'- 7 1/2"	1'- 8 1/2"	0'- 10 1/8"	0'- 6 3/4"	14'- 4"	1'- 10"	15'- 3"	56	32	58.056	1.603	149.195	16'- 2"	6	15'-10"	2	12	2.282	134.761	2.248	95.127	F
4	6	4	12"	3'- 4 7/8"	0'- 7 3/4"	1'- 8 1/4"	0'- 10 1/2"	0'- 7"	14'- 4"	1'- 9 3/4"	15'- 4"	56	40	60.880	1.723	172.799	16'- 2"	6	15'-10"	2	14	2.381	141.664	2.334	95.127	H
5	3	4	9"	4'- 1 1/2"	0'- 9 3/4"	1'- 11"	1'- 1 1/4"	0'- 9"	17'- 4"	2'- 3"	18'- 7"	68	16	62.428	1.852	182.888	19'- 2"	6	18'-10"	2	8	2.269	138.980	2.270	113.151	B
5	4	4	9"	4'- 1 1/2"	0'- 9 3/4"	1'- 11"	1'- 1 1/4"	0'- 9"	17'- 4"	2'- 3"	18'- 7"	68	24	65.252	1.951	191.685	19'- 2"	6	18'-10"	2	10	2.374	145.883	2.362	113.151	D
5	5	4	9"	4'- 1 3/8"	0'- 10"	1'- 10 3/4"	1'- 1 5/8"	0'- 9 1/4"	17'- 4"	2'- 2 3/4"	18'- 7"	68	32	68.076	2.076	200.816	19'- 2"	6	18'-10"	2	12	2.471	152.785	2.446	113.151	F
5	6	4	9"	4'- 1 3/8"	0'- 10"	1'- 10 3/4"	1'- 1 5/8"	0'- 9 1/4"	17'- 4"	2'- 2 3/4"	18'- 7"	68	40	70.900	2.174	212.397	19'- 2"	6	18'-10"	2	14	2.576	159.688	2.539	113.151	H
5	7	4	10"	4'- 1 3/8"	0'- 10"	1'- 10 3/4"	1'- 1 5/8"	0'- 9 1/4"	17'- 4"	2'- 2 3/4"	18'- 7"	68	48	73.724	2.271	229.035	19'- 2"	6	18'-10"	2	16	2.681	166.591	2.632	113.151	J
6	4	4	9"	4'- 9 3/4"	1'- 1/2"	2'- 1"	1'- 5/8"	0'- 11 3/4"	20'- 4"	2'- 7 1/2"	21'-11"	80	24	75.272	2.543	240.945	22'- 2"	6	21'-10"	2	10	2.526	163.907	2.524	131.175	E
6	5	4	9"	4'- 9 3/4"	1'- 1/2"	2'- 1"	1'- 5/8"	0'- 11 3/4"	20'- 4"	2'- 7 1/2"	21'-11"	80	32	78.096	2.641	249.985	22'- 2"	6	21'-10"	2	12	2.631	170.809	2.617	131.175	G
6	6	4	9"	4'- 10"	1'- 0"	2'- 1 1/2"	1'- 4/2"	0'- 11 1/4"	20'- 4"	2'- 8"	21'-11"	80	40	80.920	2.675	259.830	22'- 2"	6	21'-10"	2	14	2.758	177.712	2.732	131.175	I
6	7	4	9"	4'- 10"	1'- 0"	2'- 1 1/2"	1'- 4/2"	0'- 11 1/4"	20'- 4"	2'- 8"	21'-11"	80	48	83.744	2.772	286.594	22'- 2"	6	21'-10"	2	16	2.864	184.615	2.825	131.175	K
6	8	4	9"	4'- 10"	1'- 0"	2'- 1 1/2"	1'- 4/2"	0'- 11 1/4"	20'- 4"	2'- 8"	21'-11"	80	56	86.568	2.869	310.660	22'- 2"	6	21'-10"	2	18	2.969	191.517	2.917	131.175	M
7	4	5	9"	5'- 6 3/8"	1'- 2 5/8"	2'- 3 7/8"	1'- 8/8"	1'- 1 3/4"	23'- 4 7/8"	3'- 5/8"	25'- 3"	92	24	85.292	3.126	319.439	25'- 2"	6	24'-10"	2	10	2.649	181.931	2.657	149.199	E
7	6	5	9"	5'- 6 3/8"	1'- 2 5/8"	2'- 3 7/8"	1'- 8/8"	1'- 1 3/4"	23'- 4 7/8"	3'- 5/8"	25'- 3"	92	40	90.940	3.321	341.149	25'- 2"	6	24'-10"	2	14	2.859	195.736	2.842	149.199	I
7	8	5	9"	5'- 6 3/8"	1'- 2 5/8"	2'- 3 7/8"	1'- 8/8"	1'- 1 3/4"	23'- 4 7/8"	3'- 5/8"	25'- 3"	92	56	96.588	3.515	394.986	25'- 2"	6	24'-10"	2	18	3.069	209.541	3.028	149.199	M
7	10	5	9"	5'- 8 1/8"	1'- 2 5/8"	2'- 3 7/8"	1'- 8/8"	1'- 1 3/4"	23'- 4 7/8"	3'- 5/8"	25'- 6"	92	72	102.236	3.849	451.442	25'- 2"	6	24'-10"	2	22	3.140	223.347	3.073	149.199	Q
8	4	5	9"	6'- 2 5/8"	1'- 5 1/8"	2'- 6 1/8"	1'- 11 5/8"	1'- 4 1/4"	26'- 3 7/8"	3'- 5 3/8"	28'- 7"	104	24	95.312	3.863	417.676	28'- 2"	6	27'-10"	2	10	2.703	199.955	2.721	167.223	E
8	6	5	8"	6'- 2 5/8"	1'- 5 1/8"	2'- 6 1/8"	1'- 11 5/8"	1'- 4 1/4"	26'- 3 7/8"	3'- 5 3/8"	28'- 7"	104	40	100.960	4.061	409.667	28'- 2"	6	27'-10"	2	14	2.913	213.760	2.906	167.223	I
8	8	5	8"	6'- 2 5/8"	1'- 5 1/8"	2'- 6 1/8"	1'- 11 5/8"	1'- 4 1/4"	26'- 3 7/8"	3'- 5 3/8"	28'- 7"	104	56	106.608	4.255	460.451	28'- 2"	6	27'-10"	2	18	3.123	227.565	3.092	167.223	M
8	10	5	8"	6'- 4 3/8"	1'- 5 1/8"	2'- 6 1/8"	1'- 11 5/8"	1'- 4 1/4"	26'- 7 3/8"	3'- 5 3/8"	28'-10"	104	72	112.256	4.593	518.086	28'- 2"	6	27'-10"	2	22	3.190	241.371	3.132	167.223	Q
9	4	6	9"	6'- 11 1/4"	1'- 7 1/4"	2'- 9"	2'- 2 1/2"	1'- 6 1/4"	29'- 4"	3'- 10 1/2"	31'-10"	116	24	105.332	4.603	498.760	31'- 2"	6	30'-10"	2	10	2.765	217.979	2.793	185.247	F
9	6	6	9"	6'- 11 1/4"	1'- 7 1/4"	2'- 9"	2'- 2 1/2"	1'- 6 1/4"	29'- 4"	3'- 10 1/2"	31'-10"	116	40	110.980	4.798	522.604	31'- 2"	6	30'-10"	2	14	2.975	231.784	2.978	185.247	J
9	8	6	9"	6'- 11 1/4"	1'- 7 1/4"	2'- 9"	2'- 2 1/2"	1'- 6 1/4"	29'- 4"	3'- 10 1/2"	31'-10"	116	56	116.628	4.992	579.878	31'- 2"	6	30'-10"	2	18	3.185	245.589	3.164	185.247	N
9	10	6	9"	7'- 1"	1'- 7 1/4"	2'- 9"	2'- 2 1/2"	1'- 6 1/4"	29'- 7 1/2"	3'- 10 1/2"	32'- 1"	116	72	122.276	5.333	639.270	31'- 2"	6	30'-10"	2	22	3.249	259.395	3.201	185.247	R
9	12	6	9"	7'- 2 1/4"	1'- 7 1/4"	2'- 9"	2'- 2 1/2"	1'- 6 1/4"	29'-10"	3'- 10 1/2"	32'- 4"	116	88	127.924	5.666	737.378	31'- 2"	6	30'-10"	2	26	3.317	273.200	3.243	185.247	V
10	4	6	9"	7'- 7 5/8"	1'- 9 3/4"	2'- 11 1/4"	2'- 6"	1'- 8 3/4"	32'- 4"	4'- 3 1/4"	35'- 2"	128	24	115.352	5.520	548.658	34'- 2"	6	33'-10"	2	10	2.731	236.003	2.769	203.271	F
10	6	6	9"	7'- 7 5/8"	1'- 9 3/4"	2'- 11 1/4"	2'- 6"	1'- 8 3/4"	32'- 4"	4'- 3 1/4"	35'- 2"	128	40	121.000	5.715	574.603	34'- 2"	6	33'-10"	2	14	2.941	249.808	2.954	203.271	J
10	8	6	9"	7'- 7 5/8"	1'- 9 3/4"	2'- 11 1/4"	2'- 6"	1'- 8 3/4"	32'- 4"	4'- 3 1/4"	35'- 2"	128	56	126.648	5.909	627.462	34'- 2"	6	33'-10"	2	18	3.152	263.613	3.140	203.271	N
10	10	6	9"	7'- 9 3/8"	1'- 9 3/4"	2'- 11 1/4"	2'- 6"	1'- 8 3/4"	32'- 7 1/2"	4'- 3 1/4"	35'- 5"	128	72	132.296	6.255	684.355	34'- 2"	6	33'-10"	2	22	3.210	277.419	3.172	203.271	R
10	12	6	9"	7'- 10 5/8"	1'- 9 3/4"	2'- 11 1/4"	2'- 6"	1'- 8 3/4"	32'-10"	4'- 3 1/4"	35'- 8"	128	88	137.944	6.593	758.782	34'- 2"	6	33'-10"	2	26	3.275	291.224	3.121	203.271	V
12	6	7	9"	9'- 3/4"	2'- 2 1/8"	3'- 4 3/4"	3'- 1/8"	2'- 7/8"	38'- 4"	5'- 1 1/2"	41'- 9"	152	40	141.040	7.635	841.525	40'- 2"	6	39'-10"	2	14	2.828	285.856	2.861	239.319	K
12	8	7	9"	9'- 7/8"	2'- 1 7/8"	3'- 5"	2'- 11 3/4"	2'- 5/8"	38'- 4"	5'- 1 3/4"	41'- 9"	152	56	146.688	7.769	899.641	40'- 2"	6	39'-10"	2	18	3.063	299.661	3.071	239.319	O
12	10	6	8"	9'- 2 1/2"	2'- 2"	3'- 4 5/8"	3'- 1/8"	2'- 1"	38'- 7 5/8"	5'- 1 3/8"	42'- 1"	152	72	152.336	8.180	984.580	40'- 2"	6	39'-10"	2	22	3.089	313.467	3.071	239.319	S
12	12	6	8"	9'- 4"	2'- 2"	3'- 4 5/8"	3'- 1/8"	2'- 1"	38'-10 5/8"	5'- 1 3/8"	42'- 4"	152	88	157.984	8.550	1,063.377	40'- 2"	6	39'-10"	2	26	3.123	327.272	3.079	239.319	W

STRUCTURE AND BRIDGE DIVISION

TRIPLE BOX CULVERTS  
45 TO 50 FT. FILLS  
VIRGINIA DEPARTMENT OF TRANSPORTATION