

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 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"	53	16	49.903	0.989	115.345	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"	53	24	52.727	1.087	123.697	13'- 2"	6	12'-10"	2	10	1.932	109.835	1.901	77.103	C
4	3	4	12"	3'- 6 3/8"	0'- 4 3/4"	1'-11 1/4"	0'- 6 1/4"	0'- 4"	14'- 4"	2'- 3/4"	14'-11"	68	16	62.428	1.157	149.191	16'- 2"	6	15'-10"	2	8	2.124	120.956	2.115	95.127	A
4	4	4	12"	3'- 6 3/8"	0'- 4 3/4"	1'-11 1/4"	0'- 6 1/4"	0'- 4"	14'- 4"	2'- 3/4"	14'-11"	68	24	65.252	1.255	157.543	16'- 2"	6	15'-10"	2	10	2.229	127.859	2.208	95.127	C
4	5	4	12"	3'- 6 3/8"	0'- 4 3/4"	1'-11 1/4"	0'- 6 1/4"	0'- 4"	14'- 4"	2'- 3/4"	14'-11"	68	32	68.076	1.353	165.895	16'- 2"	6	15'-10"	2	12	2.334	134.761	2.300	95.127	E
4	6	4	12"	3'- 6 3/8"	0'- 4 3/4"	1'-11 1/4"	0'- 6 1/4"	0'- 4"	14'- 4"	2'- 3/4"	14'-11"	68	40	70.900	1.451	174.247	16'- 2"	6	15'-10"	2	14	2.440	141.664	2.393	95.127	G
5	3	4	11"	4'- 4"	0'- 4 3/4"	2'- 4"	0'- 6 1/4"	0'- 4"	17'- 4"	2'- 8"	17'-11"	83	16	74.953	1.306	195.032	19'- 2"	6	18'-10"	2	8	2.425	138.980	2.426	113.151	A
5	4	4	10"	4'- 4"	0'- 4 3/4"	2'- 4"	0'- 6 1/4"	0'- 4"	17'- 4"	2'- 8"	17'-11"	83	24	77.777	1.404	202.477	19'- 2"	6	18'-10"	2	10	2.531	145.883	2.519	113.151	C
5	5	4	10"	4'- 4"	0'- 4 3/4"	2'- 4"	0'- 6 1/4"	0'- 4"	17'- 4"	2'- 8"	17'-11"	83	32	80.601	1.503	211.630	19'- 2"	6	18'-10"	2	12	2.636	152.785	2.611	113.151	E
5	6	4	10"	4'- 4"	0'- 4 3/4"	2'- 4"	0'- 6 1/4"	0'- 4"	17'- 4"	2'- 8"	17'-11"	83	40	83.425	1.601	220.784	19'- 2"	6	18'-10"	2	14	2.741	159.688	2.704	113.151	G
5	7	4	9"	4'- 4"	0'- 4 3/4"	2'- 4"	0'- 6 1/4"	0'- 4"	17'- 4"	2'- 8"	17'-11"	83	48	86.249	1.698	243.283	19'- 2"	6	18'-10"	2	16	2.846	166.591	2.797	113.151	I
6	4	4	11"	5'- 7/8"	0'- 6 1/4"	2'- 7 1/4"	0'- 8 3/8"	0'- 5 1/2"	20'- 4"	3'- 1 3/4"	21'- 1"	98	24	90.302	1.747	218.090	22'- 2"	6	21'-10"	2	10	2.784	163.907	2.782	131.175	D
6	5	4	10"	5'- 7/8"	0'- 6 1/4"	2'- 7 1/4"	0'- 8 3/8"	0'- 5 1/2"	20'- 4"	3'- 1 3/4"	21'- 1"	98	32	93.126	1.845	239.219	22'- 2"	6	21'-10"	2	12	2.889	170.809	2.875	131.175	F
6	6	4	10"	5'- 7/8"	0'- 6 1/4"	2'- 7 1/4"	0'- 8 3/8"	0'- 5 1/2"	20'- 4"	3'- 1 3/4"	21'- 1"	98	40	95.950	1.943	248.372	22'- 2"	6	21'-10"	2	14	2.994	177.712	2.968	131.175	H
6	7	4	9"	5'- 7/8"	0'- 6 1/4"	2'- 7 1/4"	0'- 8 3/8"	0'- 5 1/2"	20'- 4"	3'- 1 3/4"	21'- 1"	98	48	98.774	2.040	272.697	22'- 2"	6	21'-10"	2	16	3.099	184.615	3.060	131.175	J
6	8	4	9"	5'- 7/8"	0'- 6 1/4"	2'- 7 1/4"	0'- 8 3/8"	0'- 5 1/2"	20'- 4"	3'- 1 3/4"	21'- 1"	98	56	101.598	2.138	282.029	22'- 2"	6	21'-10"	2	18	3.204	191.517	3.153	131.175	L
7	4	4	9"	5'-10 5/8"	0'- 6"	3'- 3/8"	0'- 8"	0'- 5 1/4"	23'- 4 1/8"	3'- 9 1/8"	24'- 1"	113	24	102.827	1.887	272.679	25'- 2"	6	24'-10"	2	10	3.085	181.931	3.093	149.199	D
7	6	4	9"	5'-10 5/8"	0'- 6"	3'- 3/8"	0'- 8"	0'- 5 1/4"	23'- 4 1/8"	3'- 9 1/8"	24'- 1"	113	40	108.475	2.081	317.892	25'- 2"	6	24'-10"	2	14	3.295	195.736	3.278	149.199	H
7	8	4	8"	5'-10 1/2"	0'- 6 1/4"	3'- 1/8"	0'- 8 3/8"	0'- 5 1/2"	23'- 4 1/8"	3'- 8 7/8"	24'- 1"	113	56	114.123	2.314	333.736	25'- 2"	6	24'-10"	2	18	3.492	209.541	3.450	149.199	L
7	10	4	8"	5'-10 1/2"	0'- 6 1/4"	3'- 1/8"	0'- 8 3/8"	0'- 5 1/2"	23'- 4 1/8"	3'- 8 7/8"	24'- 1"	113	72	119.771	2.510	353.557	25'- 2"	6	24'-10"	2	22	3.702	223.347	3.636	149.199	P
8	4	4	8"	6'- 8 3/8"	0'- 5 1/2"	3'- 5 5/8"	0'- 7 1/4"	0'- 4 3/4"	26'- 3 7/8"	4'- 4 7/8"	27'- 0"	128	24	115.352	1.977	326.925	28'- 2"	6	27'-10"	2	10	3.387	199.955	3.405	167.223	C
8	6	5	12"	6'- 8 3/8"	0'- 5 5/8"	3'- 5 5/8"	0'- 7 3/8"	0'- 4 3/4"	26'- 3 7/8"	4'- 4 7/8"	27'- 0"	128	40	121.000	2.172	358.499	28'- 2"	6	27'-10"	2	14	3.597	213.760	3.591	167.223	G
8	8	5	11"	6'- 8 1/4"	0'- 5 7/8"	3'- 5 3/8"	0'- 7 3/4"	0'- 5"	26'- 3 7/8"	4'- 4 5/8"	27'- 0"	128	56	126.648	2.407	400.875	28'- 2"	6	27'-10"	2	18	3.810	227.565	3.779	167.223	L
8	10	5	10"	6'- 8"	0'- 6 3/8"	3'- 4 7/8"	0'- 8 3/8"	0'- 5 1/2"	26'- 3 7/8"	4'- 4 1/8"	27'- 1"	128	72	132.296	2.684	445.005	28'- 2"	6	27'-10"	2	22	3.989	241.371	3.933	167.223	P
9	4	5	11"	7'- 5 7/8"	0'- 5 7/8"	3'-10 1/4"	0'- 7 3/4"	0'- 5"	29'- 4"	4'-11 3/4"	30'- 0"	143	24	127.877	2.184	391.710	31'- 2"	6	30'-10"	2	10	3.682	217.979	3.710	185.247	D
9	6	5	10"	7'- 5 3/4"	0'- 6 1/8"	3'-10"	0'- 8 1/8"	0'- 5 1/4"	29'- 4"	4'-11 1/2"	30'- 1"	143	40	133.525	2.425	428.310	31'- 2"	6	30'-10"	2	14	3.874	231.784	3.877	185.247	H
9	8	5	10"	7'- 5 3/4"	0'- 6 1/8"	3'-10"	0'- 8 1/8"	0'- 5 1/4"	29'- 4"	4'-11 1/2"	30'- 1"	143	56	139.173	2.620	462.853	31'- 2"	6	30'-10"	2	18	4.084	245.589	4.063	185.247	L
9	10	5	9"	7'- 5 3/4"	0'- 6 1/8"	3'-10"	0'- 8 1/8"	0'- 5 1/4"	29'- 4"	4'-11 1/2"	30'- 1"	143	72	144.821	2.813	519.001	31'- 2"	6	30'-10"	2	22	4.295	259.395	4.248	185.247	P
9	12	6	12"	7'- 5 5/8"	0'- 6 1/2"	3'- 9 3/4"	0'- 8 1/2"	0'- 5 1/2"	29'- 4"	4'-11 1/4"	30'- 1"	143	88	150.469	3.053	569.921	31'- 2"	6	30'-10"	2	26	4.487	273.200	4.416	185.247	T
10	4	5	9"	8'- 3 3/8"	0'- 6 1/8"	4'- 2 3/4"	0'- 8 1/8"	0'- 5 1/4"	32'- 4"	5'- 6 3/4"	33'- 1"	158	24	140.402	2.402	448.938	34'- 2"	6	33'-10"	2	10	3.953	236.003	3.991	203.271	D
10	6	5	10"	8'- 3 3/8"	0'- 6 1/8"	4'- 2 3/4"	0'- 8 1/8"	0'- 5 1/4"	32'- 4"	5'- 6 3/4"	33'- 1"	158	40	146.050	2.598	464.846	34'- 2"	6	33'-10"	2	14	4.164	249.808	4.177	203.271	H
10	8	5	9"	8'- 3 3/8"	0'- 6 1/8"	4'- 2 3/4"	0'- 8 1/8"	0'- 5 1/4"	32'- 4"	5'- 6 3/4"	33'- 1"	158	56	151.698	2.791	522.567	34'- 2"	6	33'-10"	2	18	4.374	263.613	4.362	203.271	L
10	10	5	9"	8'- 3 1/4"	0'- 6 3/8"	4'- 2 1/2"	0'- 8 3/8"	0'- 5 1/2"	32'- 4"	5'- 6 1/2"	33'- 1"	158	72	157.346	3.038	543.566	34'- 2"	6	33'-10"	2	22	4.564	277.419	4.527	203.271	P
10	12	6	12"	8'- 3 1/4"	0'- 6 1/2"	4'- 2 1/2"	0'- 8 1/2"	0'- 5 1/2"	32'- 4"	5'- 6 1/2"	33'- 1"	158	88	162.994	3.232	583.045	34'- 2"	6	33'-10"	2	26	4.774	291.224	4.713	203.271	T
12	6	5	9"	9'-10 3/8"	0'- 6 5/8"	4'-11 7/8"	0'- 8 3/4"	0'- 5 3/4"	38'- 4 1/8"	6'- 8 5/8"	39'- 1"	188	40	171.100	3.061	570.341	40'- 2"	6	39'-10"	2	14	4.693	285.856	4.726	239.319	H
12	8	6	12"	9'-10 3/8"	0'- 6 3/4"	4'-11 7/8"	0'- 8 3/4"	0'- 5 3/4"	38'- 4 1/8"	6'- 8 5/8"	39'- 1"	188	56	176.748	3.255	625.255	40'- 2"	6	39'-10"	2	18	4.903	299.661	4.912	239.319	L
12	10	5	8"	9'-10 3/8"	0'- 6 5/8"	4'-11 7/8"	0'- 8 3/4"	0'- 5 3/4"	38'- 4 1/8"	6'- 8 5/8"	39'- 1"	188	72	182.396	3.448	676.174	40'- 2"	6	39'-10"	2	22	5.114	313.467	5.097	239.319	P
12	12	6	11"	9'-10 1/4"	0'- 7"	4'-11 5/8"	0'- 9 1/4"	0'- 6"	38'- 4 1/8"	6'- 8 3/8"	39'- 2"	188	88	188.044	3.703	708.974	40'- 2"	6	39'-10"	2	26	5.299	327.272	5.257	239.319	T

STRUCTURE AND BRIDGE DIVISION

TRIPLE BOX CULVERTS
0 TO 2 FT. FILLS
VIRGINIA DEPARTMENT OF TRANSPORTATION