

SPAN		HIGHT	REINFORCING STEEL											QUAN./LF		HEADWALLS								WINGWALL		
(FT.)	(FT.)		BTI											REINFORCING STEEL (LBS./LONG. JT)	CONCRETE CLASS A4 (CY/LF)	REINFORCING STEEL (LBS./LF)	C			HW I		NO. HW2 BARS	NO. HW3 BARS		INLET CONCRETE CL. A4 (CY)	INLET REINFORCING STEEL (LBS)
		SIZE	SPACING C-C	a	b	c	d	e	f	g	LENGTH	NO. BL1 BARS	NO. BL2 BARS				HEADWALL LENGTH	SIZE	LENGTH							
3	3	4	12"	2'- 8 3/8"	0'- 4 1/2"	1'- 6 5/8"	0'- 5 5/8"	0'- 3 3/4"	11'- 3 3/8"	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	3	12"	2'- 8 3/8"	0'- 4 3/8"	1'- 6 1/2"	0'- 5 7/8"	0'- 3 3/8"	11'- 4"	1'- 5 3/4"	11'-10"	44	24	45.212	1.088	110.775	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'- 3 3/4"	0'- 5 1/4"	2'- 3 1/2"	0'- 6 7/8"	0'- 4 1/2"	17'- 4"	2'- 7 1/2"	17'-11"	68	16	62.428	1.363	163.107	19'- 2"	6	18'-10"	2	8	2.408	138.980	2.409	113.151	A
5	4	4	12"	4'- 3 3/8"	0'- 5 1/2"	2'- 3 1/4"	0'- 7 1/4"	0'- 4 3/4"	17'- 4"	2'- 7 1/4"	18'- 0"	68	24	65.252	1.489	171.571	19'- 2"	6	18'-10"	2	10	2.504	145.883	2.493	113.151	C
5	5	4	12"	4'- 3 5/8"	0'- 5 1/2"	2'- 3 1/4"	0'- 7 1/4"	0'- 4 3/4"	17'- 4"	2'- 7 1/4"	18'- 0"	68	32	68.076	1.587	174.500	19'- 2"	6	18'-10"	2	12	2.609	152.785	2.585	113.151	E
5	6	4	12"	4'- 3 5/8"	0'- 5 1/2"	2'- 3 1/4"	0'- 7 1/4"	0'- 4 3/4"	17'- 4"	2'- 7 1/4"	18'- 0"	68	40	70.900	1.685	188.275	19'- 2"	6	18'-10"	2	14	2.715	159.688	2.678	113.151	G
5	7	4	12"	4'- 3 1/2"	0'- 5 3/4"	2'- 3"	0'- 7 5/8"	0'- 5"	17'- 4"	2'- 7"	18'- 0"	68	48	73.724	1.810	196.627	19'- 2"	6	18'-10"	2	16	2.830	166.591	2.781	113.151	J
6	4	4	11"	5'- 1/2"	0'- 7"	2'- 6 1/2"	0'- 9 3/8"	0'- 6 1/4"	20'- 4"	3'- 1"	21'- 2"	80	24	75.272	1.844	204.293	22'- 2"	6	21'-10"	2	10	2.751	163.907	2.749	131.175	D
6	5	4	11"	5'- 1/2"	0'- 7"	2'- 6 1/2"	0'- 9 3/8"	0'- 6 1/4"	20'- 4"	3'- 1"	21'- 2"	80	32	78.096	1.942	212.766	22'- 2"	6	21'-10"	2	12	2.856	170.809	2.842	131.175	F
6	6	4	11"	5'- 3/8"	0'- 7 1/4"	2'- 6 1/4"	0'- 9 7/8"	0'- 6 1/2"	20'- 4"	3'- 3/4"	21'- 3"	80	40	80.920	2.072	221.361	22'- 2"	6	21'-10"	2	14	2.950	177.712	2.923	131.175	H
6	7	4	11"	5'- 3/8"	0'- 7 1/4"	2'- 6 1/4"	0'- 9 7/8"	0'- 6 1/2"	20'- 4"	3'- 3/4"	21'- 3"	80	48	83.744	2.170	229.834	22'- 2"	6	21'-10"	2	16	3.055	184.615	3.016	131.175	J
6	8	4	10"	5'- 3/8"	0'- 7 1/4"	2'- 6 1/4"	0'- 9 7/8"	0'- 6 1/2"	20'- 4"	3'- 3/4"	21'- 3"	80	56	86.568	2.268	248.578	22'- 2"	6	21'-10"	2	18	3.160	191.517	3.109	131.175	L
7	4	4	9"	5'- 9 3/8"	0'- 8 1/2"	2'- 9 3/8"	0'-11 1/2"	0'- 7 3/4"	23'- 4 1/8"	3'- 6 5/8"	24'- 5"	92	24	85.292	2.255	238.519	25'- 2"	6	24'-10"	2	10	2.951	181.931	2.959	149.199	D
7	6	4	9"	5'- 9 1/4"	0'- 8 3/4"	2'- 9 5/8"	0'-11 3/8"	0'- 8"	23'- 4 1/8"	3'- 6 3/8"	24'- 5"	92	40	90.940	2.488	256.448	25'- 2"	6	24'-10"	2	14	3.148	195.736	3.131	149.199	H
7	8	4	9"	5'- 9 1/8"	0'- 9"	2'- 9 3/8"	0'- 11 1/8"	0'- 8 1/4"	23'- 4 1/8"	3'- 6 1/8"	24'- 6"	92	56	96.588	2.720	285.387	25'- 2"	6	24'-10"	2	18	3.345	209.541	3.303	149.199	L
7	10	4	11"	5'- 9 1/8"	0'- 9"	2'- 9 3/8"	0'- 11 1/8"	0'- 8 1/4"	23'- 4 1/8"	3'- 6 1/8"	24'- 6"	92	72	102.236	2.914	321.963	25'- 2"	6	24'-10"	2	22	3.555	223.347	3.489	149.199	P
8	4	4	9"	6'- 6 1/4"	0'- 9 3/4"	3'- 1 3/8"	1'- 1 1/4"	0'- 9"	26'- 3 3/8"	4'- 5 1/8"	27'- 7"	104	24	95.312	2.676	326.361	28'- 2"	6	27'-10"	2	10	3.139	199.955	3.157	167.223	D
8	6	4	9"	6'- 6 1/4"	0'- 9 3/4"	3'- 1 3/8"	1'- 1 1/4"	0'- 9"	26'- 3 3/8"	4'- 5 1/8"	27'- 7"	104	40	100.960	2.873	343.956	28'- 2"	6	27'-10"	2	14	3.349	213.760	3.342	167.223	H
8	8	4	9"	6'- 6 1/4"	0'- 9 3/4"	3'- 1 3/8"	1'- 1 1/4"	0'- 9"	26'- 3 3/8"	4'- 5 1/8"	27'- 7"	104	56	106.608	3.069	361.550	28'- 2"	6	27'-10"	2	18	3.559	227.565	3.528	167.223	L
8	10	4	9"	6'- 6 1/8"	0'-10"	3'- 1 1/8"	1'- 1 5/8"	0'- 9 1/4"	26'- 3 3/8"	4'- 3 3/8"	27'- 7"	104	72	112.256	3.304	414.233	28'- 2"	6	27'-10"	2	22	3.754	241.371	3.698	167.223	P
9	4	4	8"	7'- 3 1/8"	0'-11 1/4"	3'- 4 3/4"	1'- 3 3/8"	0'-10 1/2"	29'- 4"	4'- 6 1/4"	30'- 9"	116	24	105.332	3.193	375.056	31'- 2"	6	30'-10"	2	10	3.286	217.979	3.314	185.247	D
9	6	4	8"	7'- 3"	0'-11 1/2"	3'- 4 1/2"	1'- 3 3/4"	0'-10 3/4"	29'- 4"	4'- 6"	30'-10"	116	40	110.980	3.435	393.597	31'- 2"	6	30'-10"	2	14	3.478	231.784	3.481	185.247	H
9	8	4	8"	7'- 3"	0'-11 1/2"	3'- 4 1/2"	1'- 3 3/4"	0'-10 3/4"	29'- 4"	4'- 6"	30'-10"	116	56	116.628	3.630	426.113	31'- 2"	6	30'-10"	2	18	3.688	245.589	3.667	185.247	L
9	10	4	8"	7'- 2 7/8"	0'-11 3/4"	3'- 4 1/4"	1'- 4 1/8"	0'-11"	29'- 4"	4'- 5 3/4"	30'-10"	116	72	122.276	3.870	472.095	31'- 2"	6	30'-10"	2	22	3.899	259.395	3.853	185.247	Q
9	12	5	9"	7'- 2 1/8"	0'-11 5/8"	3'- 4 1/4"	1'- 4 1/8"	0'-11"	29'- 4"	4'- 5 3/4"	30'-10"	116	88	127.924	4.060	565.220	31'- 2"	6	30'-10"	2	26	4.109	273.200	4.038	185.247	U
10	4	5	9"	8'- 0"	1'- 7/8"	3'- 8"	1'- 5 5/8"	1'- 0"	32'- 4"	5'- 0"	34'- 0"	128	24	115.352	3.763	447.132	34'- 2"	6	33'-10"	2	10	3.423	236.003	3.461	203.271	E
10	6	5	9"	7'-11 3/8"	1'- 1 1/8"	3'- 7 3/4"	1'- 6"	1'- 1/4"	32'- 4"	4'-11 3/4"	34'- 0"	128	40	121.000	4.009	478.764	34'- 2"	6	33'-10"	2	14	3.613	249.808	3.627	203.271	I
10	8	5	9"	7'-11 3/8"	1'- 1 1/8"	3'- 7 3/4"	1'- 6"	1'- 1/4"	32'- 4"	4'-11 3/4"	34'- 0"	128	56	126.648	4.205	496.359	34'- 2"	6	33'-10"	2	18	3.824	263.613	3.812	203.271	M
10	10	5	9"	7'-11 3/4"	1'- 1 3/8"	3'- 7 1/2"	1'- 6 1/4"	1'- 1/2"	32'- 4"	4'-11 1/2"	34'- 0"	128	72	132.296	4.449	551.154	34'- 2"	6	33'-10"	2	22	4.014	277.419	3.977	203.271	Q
10	12	5	9"	7'-11 3/4"	1'- 1 3/8"	3'- 7 1/2"	1'- 6 1/4"	1'- 1/2"	32'- 4"	4'-11 1/2"	34'- 0"	128	88	137.944	4.639	638.821	34'- 2"	6	33'-10"	2	26	4.224	291.224	4.163	203.271	U
12	6	6	9"	9'- 5 5/8"	1'- 4 1/4"	4'- 2 3/8"	1'-10 1/4"	1'- 3 1/4"	38'- 4 1/8"	5'-11 1/8"	40'- 5"	152	40	141.040	5.322	654.464	40'- 2"	6	39'-10"	2	14	3.764	285.856	3.797	239.319	I
12	8	5	8"	9'- 5 5/8"	1'- 4 1/8"	4'- 2 3/8"	1'-10 1/4"	1'- 3 1/4"	38'- 4 1/8"	5'-11 1/8"	40'- 5"	152	56	146.688	5.518	679.835	40'- 2"	6	39'-10"	2	18	3.974	299.661	3.982	239.319	M
12	10	5	8"	9'- 5 5/8"	1'- 4 1/8"	4'- 2 3/8"	1'-10 1/4"	1'- 3 1/4"	38'- 4 1/8"	5'-11 1/8"	40'- 5"	152	72	152.336	5.712	722.175	40'- 2"	6	39'-10"	2	22	4.184	313.467	4.168	239.319	Q
12	12	6	9"	9'- 5 1/2"	1'- 4 1/2"	4'- 2 1/8"	1'-10 5/8"	1'- 3 1/2"	38'- 4 1/8"	5'-10 3/8"	40'- 5"	152	88	157.984	5.963	814.709	40'- 2"	6	39'-10"	2	26	4.369	327.272	4.328	239.319	U

STRUCTURE AND BRIDGE DIVISION

TRIPLE BOX CULVERTS

20 TO 25 FT. FILLS

VIRGINIA DEPARTMENT OF TRANSPORTATION

1004.15