

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	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'- 4 1/2"	1'- 6 5/8"	0'- 5 7/8"	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	4	12"	2'- 8 3/8"	0'- 4 1/2"	1'- 6 5/8"	0'- 5 7/8"	0'- 3 3/4"	11'- 3 3/8"	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 1/4"	0'- 5"	1'-11"	0'- 6 1/2"	0'- 4 1/4"	14'- 4"	2'- 1/2"	14'-11"	56	16	52.408	1.181	129.930	16'- 2"	6	15'-10"	2	8	2.118	120.956	2.108	95.127	A
4	4	4	12"	3'- 6 1/4"	0'- 5"	1'-11"	0'- 6 1/2"	0'- 4 1/4"	14'- 4"	2'- 1/2"	14'-11"	56	24	55.232	1.279	138.282	16'- 2"	6	15'-10"	2	10	2.223	127.859	2.201	95.127	C
4	5	4	12"	3'- 6 1/4"	0'- 5"	1'-11"	0'- 6 1/2"	0'- 4 1/4"	14'- 4"	2'- 1/2"	14'-11"	56	32	58.056	1.377	146.634	16'- 2"	6	15'-10"	2	12	2.328	134.761	2.294	95.127	E
4	6	4	12"	3'- 6 1/4"	0'- 5"	1'-11"	0'- 6 1/2"	0'- 4 1/4"	14'- 4"	2'- 1/2"	14'-11"	56	40	60.880	1.475	154.986	16'- 2"	6	15'-10"	2	14	2.433	141.664	2.387	95.127	G
5	3	4	12"	4'- 3 3/8"	0'- 6 1/2"	2'- 2 1/4"	0'- 8 5/8"	0'- 5 3/4"	17'- 4"	2'- 6 1/4"	18'- 1"	68	16	62.428	1.500	158.798	19'- 2"	6	18'-10"	2	8	2.383	138.980	2.383	113.151	B
5	4	4	12"	4'- 3 3/8"	0'- 6 1/2"	2'- 2 1/4"	0'- 8 5/8"	0'- 5 3/4"	17'- 4"	2'- 6 1/4"	18'- 1"	68	24	65.252	1.598	167.150	19'- 2"	6	18'-10"	2	10	2.488	145.883	2.476	113.151	D
5	5	4	12"	4'- 3"	0'- 6 3/4"	2'- 2"	0'- 9"	0'- 6"	17'- 4"	2'- 6"	18'- 2"	68	32	68.076	1.723	175.947	19'- 2"	6	18'-10"	2	12	2.584	152.785	2.560	113.151	F
5	6	4	12"	4'- 3 3/8"	0'- 6 1/2"	2'- 2 1/4"	0'- 8 5/8"	0'- 5 3/4"	17'- 4"	2'- 6 1/4"	18'- 1"	68	40	70.900	1.794	189.277	19'- 2"	6	18'-10"	2	14	2.698	159.688	2.662	113.151	H
5	7	4	12"	4'- 3 3/8"	0'- 6 1/2"	2'- 2 1/4"	0'- 8 5/8"	0'- 5 3/4"	17'- 4"	2'- 6 1/4"	18'- 1"	68	48	73.724	1.892	197.629	19'- 2"	6	18'-10"	2	16	2.803	166.591	2.754	113.151	J
6	4	4	10"	4'-11 3/4"	0'- 8 1/2"	2'- 5"	0'-11 1/2"	0'- 7 3/4"	20'- 4"	2'-11 1/2"	21'- 5"	80	24	75.272	2.036	201.408	22'- 2"	6	21'-10"	2	10	2.684	163.907	2.683	131.175	D
6	5	4	10"	4'-11 5/8"	0'- 8 3/4"	2'- 4 3/4"	0'-11 1/8"	0'- 8"	20'- 4"	2'-11 1/4"	21'- 5"	80	32	78.096	2.166	210.361	22'- 2"	6	21'-10"	2	12	2.779	170.809	2.764	131.175	F
6	6	4	10"	4'-11 5/8"	0'- 8 3/4"	2'- 4 3/4"	0'-11 1/8"	0'- 8"	20'- 4"	2'-11 1/4"	21'- 5"	80	40	80.920	2.264	218.980	22'- 2"	6	21'-10"	2	14	2.884	177.712	2.857	131.175	H
6	7	4	10"	5'- 0"	0'- 8"	2'- 5 1/2"	0'-10 3/4"	0'- 7 1/4"	20'- 4"	3'- 0"	21'- 4"	80	48	83.744	2.266	236.123	22'- 2"	6	21'-10"	2	16	3.022	184.615	2.983	131.175	J
6	8	4	10"	4'-11 7/8"	0'- 8 1/4"	2'- 5 1/4"	0'-11 1/8"	0'- 7 1/2"	20'- 4"	2'-11 3/4"	21'- 4"	80	56	86.568	2.395	253.889	22'- 2"	6	21'-10"	2	18	3.116	191.517	3.065	131.175	L
7	4	4	9"	5'- 8 3/4"	0'- 9 3/4"	2'- 8 5/8"	1'- 1 1/4"	0'- 9"	23'- 4 1/8"	3'- 5 3/8"	24'- 7"	92	24	85.292	2.436	263.114	25'- 2"	6	24'-10"	2	10	2.884	181.931	2.892	149.199	D
7	6	4	9"	5'- 8 3/4"	0'- 9 3/4"	2'- 8 5/8"	1'- 1 1/4"	0'- 9"	23'- 4 1/8"	3'- 5 3/8"	24'- 7"	92	40	90.940	2.632	280.709	25'- 2"	6	24'-10"	2	14	3.094	195.736	3.078	149.199	H
7	8	4	9"	5'- 8 3/4"	0'- 9 3/4"	2'- 8 5/8"	1'- 1 1/4"	0'- 9"	23'- 4 1/8"	3'- 5 3/8"	24'- 7"	92	56	96.588	2.827	313.879	25'- 2"	6	24'-10"	2	18	3.305	209.541	3.263	149.199	L
7	10	4	9"	5'- 8 3/4"	0'- 9 3/4"	2'- 8 5/8"	1'- 1 1/4"	0'- 9"	23'- 4 1/8"	3'- 5 3/8"	24'- 7"	92	72	102.236	3.021	366.415	25'- 2"	6	24'-10"	2	22	3.515	223.347	3.448	149.199	P
8	4	4	9"	6'- 5 3/8"	0'-11 1/2"	2'-11 5/8"	1'- 3 3/4"	0'-10 3/4"	26'- 3 3/8"	3'-10 7/8"	27'-10"	104	24	95.312	2.965	316.704	28'- 2"	6	27'-10"	2	10	3.029	199.955	3.047	167.223	D
8	6	4	9"	6'- 5 3/8"	0'-11 1/2"	2'-11 5/8"	1'- 3 3/4"	0'-10 3/4"	26'- 3 3/8"	3'-10 7/8"	27'-10"	104	40	100.960	3.161	334.299	28'- 2"	6	27'-10"	2	14	3.239	213.760	3.233	167.223	H
8	8	4	9"	6'- 5 3/8"	0'-11 1/2"	2'-11 5/8"	1'- 3 3/4"	0'-10 3/4"	26'- 3 3/8"	3'-10 7/8"	27'-10"	104	56	106.608	3.356	367.500	28'- 2"	6	27'-10"	2	18	3.450	227.565	3.418	167.223	L
8	10	4	9"	6'- 5 3/8"	0'-11 1/2"	2'-11 5/8"	1'- 3 3/4"	0'-10 3/4"	26'- 3 3/8"	3'-10 7/8"	27'-10"	104	72	112.256	3.550	422.106	28'- 2"	6	27'-10"	2	22	3.660	241.371	3.604	167.223	P
9	4	4	8"	7'- 2 1/4"	1'- 1"	3'- 3"	1'- 5 3/8"	1'- 1/4"	29'- 4"	4'- 4 1/2"	31'- 0"	116	24	105.332	3.513	377.561	31'- 2"	6	30'-10"	2	10	3.178	217.979	3.206	185.247	E
9	6	5	9"	7'- 2 1/4"	1'- 1 1/8"	3'- 3"	1'- 6"	1'- 1/4"	29'- 4"	4'- 4 1/2"	31'- 0"	116	40	110.980	3.709	396.674	31'- 2"	6	30'-10"	2	14	3.389	231.784	3.392	185.247	I
9	8	4	8"	7'- 2 1/4"	1'- 1"	3'- 3"	1'- 5 3/8"	1'- 1/4"	29'- 4"	4'- 4 1/2"	31'- 0"	116	56	116.628	3.904	431.779	31'- 2"	6	30'-10"	2	18	3.599	245.589	3.577	185.247	M
9	10	4	8"	7'- 2 1/4"	1'- 1"	3'- 3"	1'- 5 3/8"	1'- 1/4"	29'- 4"	4'- 4 1/2"	31'- 0"	116	72	122.276	4.097	490.280	31'- 2"	6	30'-10"	2	22	3.809	259.395	3.763	185.247	Q
9	12	4	9"	7'- 2 3/8"	1'- 1 1/4"	3'- 2 3/4"	1'- 6 1/4"	1'- 1/2"	29'- 4 1/2"	4'- 4 1/4"	31'- 1"	116	88	127.924	4.354	616.538	31'- 2"	6	30'-10"	2	26	3.979	273.200	3.907	185.247	U
10	4	5	9"	7'-11"	1'- 2 3/8"	3'- 6"	1'- 8 3/8"	1'- 2"	32'- 4"	4'-10"	34'- 3"	128	24	115.352	4.163	491.307	34'- 2"	6	33'-10"	2	10	3.261	236.003	3.299	203.271	E
10	6	5	9"	7'-11"	1'- 2 3/8"	3'- 6"	1'- 8 3/8"	1'- 2"	32'- 4"	4'-10"	34'- 3"	128	40	121.000	4.359	509.388	34'- 2"	6	33'-10"	2	14	3.471	249.808	3.484	203.271	I
10	8	5	9"	7'-11"	1'- 2 3/8"	3'- 6"	1'- 8 3/8"	1'- 2"	32'- 4"	4'-10"	34'- 3"	128	56	126.648	4.554	544.951	34'- 2"	6	33'-10"	2	18	3.681	263.613	3.670	203.271	M
10	10	5	9"	7'-10 3/8"	1'- 3 1/8"	3'- 5 3/4"	1'- 8 3/4"	1'- 2 1/4"	32'- 4"	4'- 9 3/4"	34'- 3"	128	72	132.296	4.798	602.613	34'- 2"	6	33'-10"	2	22	3.871	277.419	3.835	203.271	Q
10	12	5	9"	7'-11 3/8"	1'- 3 1/8"	3'- 5 3/4"	1'- 8 3/4"	1'- 2 1/4"	32'- 5"	4'- 9 3/4"	34'- 4"	128	88	137.944	5.035	685.337	34'- 2"	6	33'-10"	2	26	4.036	291.224	3.974	203.271	U
12	6	6	8"	9'- 4 5/8"	1'- 6 1/4"	4'- 3 3/8"	2'- 1 1/8"	1'- 5 1/4"	38'- 4 1/8"	5'- 9 1/8"	40'- 8"	152	40	141.040	5.796	705.762	40'- 2"	6	39'-10"	2	14	3.583	285.856	3.616	239.319	J
12	8	6	8"	9'- 4 5/8"	1'- 6 1/4"	4'- 3 3/8"	2'- 1 1/8"	1'- 5 1/4"	38'- 4 1/8"	5'- 9 1/8"	40'- 8"	152	56	146.688	5.990	746.989	40'- 2"	6	39'-10"	2	18	3.793	299.661	3.801	239.319	N
12	10	6	8"	9'- 4 5/8"	1'- 6 1/4"	4'- 3 3/8"	2'- 1 1/8"	1'- 5 1/4"	38'- 4 1/8"	5'- 9 1/8"	40'- 8"	152	72	152.336	6.183	808.886	40'- 2"	6	39'-10"	2	22	4.003	313.467	3.987	239.319	R
12	12	6	8"	9'- 5"	1'- 6 1/2"	4'- 1 1/8"	2'- 1 1/2"	1'- 5 1/2"	38'- 5 1/8"	5'- 8 3/8"	40'-10"	152	88	157.984	6.484	870.455	40'- 2"	6	39'-10"	2	26	4.141	327.272	4.099	239.319	V

STRUCTURE AND BRIDGE DIVISION

TRIPLE BOX CULVERTS
25 TO 30 FT. FILLS
VIRGINIA DEPARTMENT OF TRANSPORTATION