

FOR TYPICAL SECTION, NOTES AND OTHER DETAILS, REFER TO STANDARD BCT-DT.

BCT-40

SPAN		HCHT		REINFORCING STEEL											QUAN./LF		HEADWALLS							WINGWALL		
(FT.)	(FT.)	SIZE	SPACING C-C	a	b	c	d	e	f	g	LENGTH	NO. BL1 #4 BARS	NO. BL2 #3 BARS	REINFORCING STEEL (LBS./LONG. FT)	CONCRETE CLASS #4 (CY/LF)	REINFORCING STEEL (LBS./LF)	G HEADWALL LENGTH	HW1 SIZE	HW1 LENGTH	NO. HW2 BARS	NO. HW3 BARS	INLET CONCRETE CL. #4 (CY)	INLET REINFORCING STEEL (LBS)		OUTLET CONCRETE CL. #4 (CY)	OUTLET REINFORCING STEEL (LBS)
3	3	4	12"	2'-7"	0'- 4"	1'-10"	0'- 5/8"	0'- 3/4"	11'-3"	1'-3"	11'-9"	44	16	42,388	0.988	119.117	13'- 2"	6	12'-10"	2	8	1.827	102.932	1.808	77.103	A
3	4	4	12"	2'-7"	0'- 4"	1'-10"	0'- 5/8"	0'- 3/4"	11'-3"	1'-3"	11'-9"	44	24	45,212	1.087	123.575	13'- 2"	6	12'-10"	2	10	1.932	109.835	1.901	77.103	C
4	3	4	12"	3'-3"	0'- 5 3/4"	2'-3"	0'- 7 7/8"	0'- 5"	14'-3"	1'-6"	15'-0"	56	16	52,408	1.294	130.522	16'- 2"	6	15'-10"	2	8	2.104	120.956	2.095	95.127	B
4	4	4	12"	3'-3"	0'- 5 3/4"	2'-3"	0'- 7 7/8"	0'- 5"	14'-3"	1'-6"	15'-0"	56	24	55,232	1.392	138.874	16'- 2"	6	15'-10"	2	10	2.209	127.859	2.188	95.127	D
4	5	4	12"	3'-3"	0'- 5 3/4"	2'-3"	0'- 7 7/8"	0'- 5"	14'-3"	1'-6"	15'-0"	56	32	58,056	1.490	147.226	16'- 2"	6	15'-10"	2	12	2.315	134.761	2.280	95.127	F
4	6	4	12"	3'-3"	0'- 5 3/4"	2'-3"	0'- 7 7/8"	0'- 5"	14'-3"	1'-6"	15'-0"	56	40	60,880	1.587	175.546	16'- 2"	6	15'-10"	2	14	2.420	141.664	2.373	95.127	H
5	3	4	11"	3'-10"	0'- 8"	2'-8"	0'- 10 7/8"	0'- 7 1/4"	17'-4"	1'-9"	18'-3"	68	16	62,428	1.718	160.509	19'- 2"	6	18'-10"	2	8	2.313	138.980	2.313	113.151	B
5	4	4	11"	3'-10"	0'- 8"	2'-8"	0'- 10 7/8"	0'- 7 1/4"	17'-4"	1'-9"	18'-3"	68	24	65,252	1.816	168.982	19'- 2"	6	18'-10"	2	10	2.418	145.883	2.406	113.151	D
5	5	4	10"	3'-10"	0'- 7 3/4"	2'-8"	0'- 10 1/2"	0'- 7"	17'-4"	1'-9"	18'-3"	68	32	68,076	1.886	186.495	19'- 2"	6	18'-10"	2	12	2.532	152.785	2.508	113.151	F
5	6	4	10"	3'-10"	0'- 7 3/4"	2'-8"	0'- 10 1/2"	0'- 7"	17'-4"	1'-9"	18'-3"	68	40	70,900	1.984	200.833	19'- 2"	6	18'-10"	2	14	2.637	159.688	2.600	113.151	H
5	7	4	10"	3'-10"	0'- 7 3/4"	2'-8"	0'- 10 1/2"	0'- 7"	17'-4"	1'-9"	18'-3"	68	48	73,724	2.080	230.967	19'- 2"	6	18'-10"	2	16	2.742	166.591	2.693	113.151	J
6	4	4	9"	4'-6"	0'-10"	3'-0"	1'- 1 5/8"	0'- 9/4"	20'-4"	2'-1"	21'-7"	80	24	75,272	2.289	215.855	22'- 2"	6	21'-10"	2	10	2.607	163.907	2.605	131.175	D
6	5	4	10"	4'-6"	0'-10"	3'-0"	1'- 1 5/8"	0'- 9/4"	20'-4"	2'-1"	21'-7"	80	32	78,096	2.387	229.840	22'- 2"	6	21'-10"	2	12	2.712	170.809	2.698	131.175	F
6	6	4	10"	4'-6"	0'-10"	3'-0"	1'- 1 5/8"	0'- 9/4"	20'-4"	2'-1"	21'-7"	80	40	80,920	2.485	244.460	22'- 2"	6	21'-10"	2	14	2.817	177.712	2.791	131.175	H
6	7	4	10"	4'-6"	0'-9 3/4"	3'-0"	1'- 1 1/4"	0'- 9"	20'-4"	2'-1"	21'-6"	80	48	83,744	2.550	271.576	22'- 2"	6	21'-10"	2	16	2.922	184.615	2.883	131.175	J
6	8	4	9"	4'-7"	0'-10"	3'-0"	1'- 1 5/8"	0'- 9/4"	20'-5"	2'-1"	21'-8"	80	56	86,568	2.711	292.291	22'- 2"	6	21'-10"	2	18	3.039	191.517	2.987	131.175	L
7	4	5	9"	5'-2"	1'- 0"	3'-5"	1'- 4 3/8"	0'-11 1/8"	23'-4"	2'-4"	24'-10"	92	24	85,292	2.833	314.260	25'- 2"	6	24'-10"	2	10	2.769	181.931	2.777	149.199	E
7	6	5	9"	5'-2"	0'-11 3/4"	3'-5"	1'- 4"	0'-10 7/8"	23'-4"	2'-5"	24'-9"	92	40	90,940	2.993	337.736	25'- 2"	6	24'-10"	2	14	2.979	195.736	2.962	149.199	I
7	8	5	9"	5'-2"	0'-11 3/4"	3'-5"	1'- 4"	0'-10 7/8"	23'-4"	2'-5"	24'-9"	92	56	96,588	3.185	404.045	25'- 2"	6	24'-10"	2	18	3.189	209.541	3.148	149.199	M
7	10	5	9"	5'-5"	0'-11 3/4"	3'-5"	1'- 4"	0'-10 7/8"	23'-9"	2'-5"	25'-2"	92	72	102,236	3.573	457.227	25'- 2"	6	24'-10"	2	22	3.361	223.347	3.294	149.199	Q
8	4	5	8"	5'-9"	1'- 2 1/2"	3'-10"	1'- 7 7/8"	1'- 1 5/8"	26'-4"	2'-6"	28'-2"	104	24	95,312	3.536	383.895	28'- 2"	6	27'-10"	2	10	2.875	199.955	2.893	167.223	E
8	6	5	8"	5'-9"	1'- 2"	3'-10"	1'- 7 7/8"	1'- 1 5/8"	26'-4"	2'-7"	28'-1"	104	40	100,960	3.649	408.450	28'- 2"	6	27'-10"	2	14	3.085	213.760	3.079	167.223	I
8	8	5	8"	5'-9"	1'- 2"	3'-10"	1'- 7 7/8"	1'- 1 5/8"	26'-4"	2'-7"	28'-1"	104	56	106,608	3.842	468.303	28'- 2"	6	27'-10"	2	18	3.280	227.565	3.248	167.223	M
8	10	5	8"	6'-0"	1'- 2"	3'-10"	1'- 7 7/8"	1'- 1 5/8"	26'-9"	2'-7"	28'-6"	104	72	112,256	4.236	518.258	28'- 2"	6	27'-10"	2	22	3.451	241.371	3.394	167.223	Q
9	4	6	9"	6'-5"	1'- 4"	4'-3"	1'- 9 7/8"	1'- 3"	29'-4"	2'-11"	31'-4"	116	24	105,332	4.144	499.880	31'- 2"	6	30'-10"	2	10	2.944	217.979	2.972	185.247	E
9	6	6	9"	6'-5"	1'- 4"	4'-3"	1'- 9 7/8"	1'- 3"	29'-4"	2'-11"	31'-4"	116	40	110,980	4.340	525.293	31'- 2"	6	30'-10"	2	14	3.155	231.784	3.158	185.247	I
9	8	6	9"	6'-5"	1'- 3 3/4"	4'-3"	1'- 9 1/2"	1'- 2 3/4"	29'-4"	2'-11"	31'-4"	116	56	116,628	4.487	586.121	31'- 2"	6	30'-10"	2	18	3.365	245.589	3.343	185.247	M
9	10	6	9"	6'-8"	1'- 4"	4'-3"	1'- 9 7/8"	1'- 3"	29'-9"	2'-11"	31'-9"	116	72	122,276	4.932	641.784	31'- 2"	6	30'-10"	2	22	3.553	259.395	3.506	185.247	Q
9	12	6	9"	6'-10"	1'- 3 3/4"	4'-3"	1'- 9 1/2"	1'- 2 3/4"	30'-1"	2'-11"	32'-1"	116	88	127,924	5.294	747.331	31'- 2"	6	30'-10"	2	26	3.598	273.200	3.525	185.247	U
10	4	6	9"	7'-1"	1'- 6"	4'-8"	2'- 3/4"	1'- 5"	32'-3"	3'-2"	34'-7"	128	24	115,352	4.914	547.156	34'- 2"	6	33'-10"	2	10	2.975	236.003	3.013	203.271	F
10	6	6	9"	7'-1"	1'- 6"	4'-8"	2'- 3/4"	1'- 5"	32'-3"	3'-2"	34'-7"	128	40	121,000	5.110	572.819	34'- 2"	6	33'-10"	2	14	3.185	249.808	3.198	203.271	J
10	8	6	9"	7'-1"	1'- 6"	4'-8"	2'- 3/4"	1'- 5"	32'-3"	3'-2"	34'-7"	128	56	126,648	5.302	635.237	34'- 2"	6	33'-10"	2	18	3.395	263.613	3.384	203.271	N
10	10	7	9"	7'-3"	1'- 6"	4'-8"	2'- 3/8"	1'- 4 3/4"	32'-7"	3'-2"	34'-11"	128	72	132,296	5.657	790.481	34'- 2"	6	33'-10"	2	22	3.564	277.419	3.527	203.271	R
10	12	6	9"	7'-5"	1'- 6 1/4"	4'-8"	2'- 1/8"	1'- 5 1/4"	33'-0"	3'-1"	35'-5"	128	88	137,944	6.175	756.073	34'- 2"	6	33'-10"	2	26	3.603	291.224	3.540	203.271	V
12	6	6	8"	8'-4"	1'-10 1/2"	5'-5"	2'- 7 7/8"	1'- 9/2"	38'-3"	3'-8"	41'-3"	152	40	141,040	6.986	732.789	40'- 2"	6	39'-10"	2	14	3.184	285.856	3.217	239.319	J
12	8	6	8"	8'-4"	1'-10 1/2"	5'-5"	2'- 7 7/8"	1'- 9/2"	38'-3"	3'-8"	41'-3"	152	56	146,688	7.179	797.422	40'- 2"	6	39'-10"	2	18	3.394	299.661	3.402	239.319	N
12	10	6	8"	8'-5"	1'-10 1/2"	5'-5"	2'- 7 7/8"	1'- 9/2"	38'-6"	3'-8"	41'-5"	152	72	152,336	7.460	872.364	40'- 2"	6	39'-10"	2	22	3.535	313.467	3.518	239.319	R
12	12	6	8"	8'-8"	1'-10 1/2"	5'-5"	2'- 7 7/8"	1'- 9/2"	39'-0"	3'-8"	41'-11"	152	88	157,984	7.970	921.845	40'- 2"	6	39'-10"	2	26	3.590	327.272	3.547	239.319	V

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

SPECIFICATION REFERENCE	<h2>TRIPLE BOX CULVERTS</h2> <h3>30 TO 40 FT. FILLS</h3> <p>VIRGINIA DEPARTMENT OF TRANSPORTATION</p>	 ROAD AND BRIDGE STANDARDS