

DIMENSIONS					REINFORCING STEEL																						
SPAN	HGHT	T1	T2	T3	A	B	C	D	E	F	BH1				BH2			BH3				BVI			NO. BL1 BARS	NO. BL2 BARS	
(FT.)	(FT.)	TOP SLAB (IN.)	BOTTOM SLAB (IN.)	WALL (IN.)							SIZE	SPACING C-C	a	b	LENGTH	SIZE	SPACING C-C	LENGTH	SIZE	SPACING C-C	a	LENGTH	SIZE	SPACING C-C			LENGTH
3	3	8"	8"	8"	2	2'- 0"	2	2'- 0"	1	1'- 0"	4	10"	4'- 0"	2'- 8"	8'- 10"	5	10"	4'- 0"	--	----	----	4	12"	4'- 0"	16	8	
3	4	8"	8"	8"	2	2'- 0"	2	2'- 0"	2	2'- 0"	4	10"	4'- 0"	3'- 2"	9'- 10"	5	10"	4'- 0"	--	----	----	4	12"	5'- 0"	16	12	
4	3	8 1/2"	8 1/2"	8 1/2"	3	3'- 0"	3	3'- 0"	1	1'- 0"	5	9 1/2"	5'- 1"	2'- 8 1/2"	9'- 10"	6	9 1/2"	5'- 1"	3	9 1/2"	2'- 4 1/8"	4'- 6"	4	11"	4'- 1"	20	8
4	4	8 1/2"	8 1/2"	8 1/2"	3	3'- 0"	3	3'- 0"	2	2'- 0"	4	9 1/2"	5'- 1"	3'- 2 1/2"	11'- 0"	6	9 1/2"	5'- 1"	3	9 1/2"	2'- 4 1/8"	4'- 6"	4	12"	5'- 1"	20	12
4	5	8 1/2"	8 1/2"	8 1/2"	3	3'- 0"	3	3'- 0"	3	3'- 0"	4	9"	5'- 1"	3'- 8 1/2"	12'- 0"	6	9"	5'- 1"	--	----	----	4	12"	6'- 1"	20	16	
4	6	8 3/4"	8 3/4"	8"	3	3'- 0"	3	3'- 0"	4	4'- 0"	4	9"	5'- 0"	4'- 2 3/4"	12'- 11"	6	9"	5'- 0"	--	----	----	4	12"	7'- 2"	20	20	
5	3	10 3/4"	10 3/4"	8"	4	4'- 0"	4	4'- 0"	1	1'- 0"	4	8"	6'- 0"	2'- 10 3/4"	11'- 3"	6	8"	6'- 0"	--	----	----	4	10 1/2"	4'- 5"	24	8	
5	4	10 3/4"	10 3/4"	8"	4	4'- 0"	4	4'- 0"	2	2'- 0"	4	7 1/2"	6'- 0"	3'- 4 3/4"	12'- 3"	6	7 1/2"	6'- 0"	--	----	----	4	12"	5'- 5"	24	12	
5	5	10 3/4"	10 3/4"	8"	4	4'- 0"	4	4'- 0"	3	3'- 0"	4	7 1/2"	6'- 0"	3'- 10 3/4"	13'- 3"	6	7 1/2"	6'- 0"	--	----	----	4	12"	6'- 5"	24	16	
5	6	11"	11"	8"	4	4'- 0"	4	4'- 0"	4	4'- 0"	4	7 1/2"	6'- 0"	4'- 5"	14'- 4"	6	7 1/2"	6'- 0"	--	----	----	4	12"	7'- 6"	24	20	
5	7	11"	11"	8"	4	4'- 0"	4	4'- 0"	5	5'- 0"	4	7 1/2"	6'- 0"	4'- 11"	15'- 4"	6	7 1/2"	6'- 0"	--	----	----	4	12"	8'- 6"	24	24	
6	4	12 3/4"	12 3/4"	8"	5	5'- 0"	5	5'- 0"	2	2'- 0"	4	6 1/2"	7'- 0"	3'- 6 3/4"	13'- 7"	6	6 1/2"	7'- 0"	--	----	----	4	12"	5'- 9"	28	12	
6	5	13"	13"	8"	5	5'- 0"	5	5'- 0"	3	3'- 0"	4	6 1/2"	7'- 0"	4'- 1"	14'- 8"	6	6 1/2"	7'- 0"	--	----	----	4	12"	6'- 10"	28	16	
6	6	13"	13"	8"	5	5'- 0"	5	5'- 0"	4	4'- 0"	4	6 1/2"	7'- 0"	4'- 7"	15'- 8"	6	6 1/2"	7'- 0"	--	----	----	4	12"	7'- 10"	28	20	
6	7	13"	13"	8"	5	5'- 0"	5	5'- 0"	5	5'- 0"	4	6 1/2"	7'- 0"	5'- 1"	16'- 8"	6	6 1/2"	7'- 0"	--	----	----	4	12"	8'- 10"	28	24	
6	8	13"	13"	8"	5	5'- 0"	5	5'- 0"	6	6'- 0"	4	6 1/2"	7'- 0"	5'- 7"	17'- 8"	6	6 1/2"	7'- 0"	--	----	----	5	12"	9'- 10"	28	28	
7	4	13 1/4"	13 1/4"	8"	6	6'- 0"	6	6'- 0"	2	2'- 0"	4	5 1/2"	8'- 0"	3'- 7 1/4"	14'- 8"	6	5 1/2"	8'- 0"	--	----	----	4	9"	5'- 10"	32	12	
7	6	13 1/2"	13 1/2"	8"	6	6'- 0"	6	6'- 0"	4	4'- 0"	4	5"	8'- 0"	4'- 7 1/2"	16'- 9"	6	5"	8'- 0"	--	----	----	4	12"	7'- 11"	32	20	
7	8	13 1/4"	13 1/4"	8"	6	6'- 0"	6	6'- 0"	6	6'- 0"	4	5"	8'- 0"	5'- 7 1/4"	18'- 8"	6	5"	8'- 0"	--	----	----	4	11"	9'- 10"	32	28	
7	10	13"	13"	8"	6	6'- 0"	6	6'- 0"	8	8'- 0"	5	8"	8'- 0"	6'- 7"	20'- 6"	8	8"	8'- 0"	3	8"	2'- 10 3/4"	5'- 7"	4	5"	11'- 10"	32	36
8	4	15 1/2"	15 1/2"	8"	7	7'- 0"	7	7'- 0"	2	2'- 0"	5	6"	9'- 0"	3'- 9 1/2"	15'- 11"	7	6"	9'- 0"	--	----	----	4	10"	6'- 3"	36	12	
8	6	15 1/2"	15 1/2"	8"	7	7'- 0"	7	7'- 0"	4	4'- 0"	4	6"	9'- 0"	4'- 9 1/2"	18'- 1"	7	6"	9'- 0"	--	----	----	4	12"	8'- 3"	36	20	
8	8	15 1/2"	15 1/2"	8"	7	7'- 0"	7	7'- 0"	6	6'- 0"	5	6"	9'- 0"	5'- 9 1/2"	19'- 11"	7	6"	9'- 0"	--	----	----	4	10 1/2"	10'- 3"	36	28	
8	10	15 1/4"	15 1/4"	8"	7	7'- 0"	7	7'- 0"	8	8'- 0"	6	6"	9'- 0"	6'- 9 1/4"	21'- 9"	7	6"	9'- 0"	--	----	----	4	5"	12'- 3"	36	36	
9	4	17 1/4"	17 1/4"	8"	8	8'- 0"	8	8'- 0"	2	2'- 0"	5	6"	10'- 0"	3'- 11 1/4"	17'- 3"	7	6"	10'- 0"	--	----	----	4	10"	6'- 6"	40	12	
9	6	17 1/2"	17 1/2"	8"	8	8'- 0"	8	8'- 0"	4	4'- 0"	5	6"	10'- 0"	4'- 11 1/2"	19'- 3"	7	6"	10'- 0"	--	----	----	4	12"	8'- 7"	40	20	
9	8	17 1/2"	17 1/2"	8"	8	8'- 0"	8	8'- 0"	6	6'- 0"	4	7 1/2"	10'- 0"	5'- 11 1/2"	21'- 5"	8	7 1/2"	10'- 0"	4	7 1/2"	3'- 3 5/8"	6'- 4"	4	10"	10'- 7"	40	28
9	10	17 1/4"	17 1/4"	8"	8	8'- 0"	8	8'- 0"	8	8'- 0"	6	5 1/2"	10'- 0"	6'- 11 1/4"	23'- 1"	7	5 1/2"	10'- 0"	--	----	----	4	5"	12'- 6"	40	36	
9	12	17"	17"	9 1/4"	8	8'- 0"	8	8'- 0"	10	10'- 0"	6	5 1/2"	10'- 2 1/2"	7'- 11"	25'- 3"	7	5 1/2"	10'- 3"	--	----	----	6	8 1/2"	14'- 6"	40	44	
10	4	18 1/2"	18 1/2"	8"	9	9'- 0"	9	9'- 0"	2	2'- 0"	5	6 1/2"	11'- 0"	4'- 1/2"	18'- 5"	8	6 1/2"	11'- 0"	--	----	----	4	9"	6'- 9"	44	12	
10	6	18 3/4"	18 3/4"	8"	9	9'- 0"	9	9'- 0"	4	4'- 0"	5	6 1/2"	11'- 0"	5'- 3/4"	20'- 6"	8	6 1/2"	11'- 0"	--	----	----	4	12"	8'- 9"	44	20	
10	8	19 1/4"	19 1/4"	8"	9	9'- 0"	9	9'- 0"	6	6'- 0"	5	6 1/2"	11'- 0"	6'- 1 1/4"	22'- 7"	8	6 1/2"	11'- 0"	--	----	----	4	10 1/2"	10'- 10"	44	28	
10	10	19 1/4"	19 1/4"	8"	9	9'- 0"	9	9'- 0"	8	8'- 0"	6	6 1/2"	11'- 0"	7'- 1 1/4"	24'- 5"	8	6 1/2"	11'- 0"	--	----	----	5	7 1/2"	12'- 10"	44	36	
10	12	19"	19"	9 1/4"	9	9'- 0"	9	9'- 0"	10	10'- 0"	7	6"	11'- 2 1/2"	8'- 1"	26'- 5"	8	6"	11'- 3"	--	----	----	4	4"	14'- 10"	44	44	
12	6	21 1/4"	21 1/4"	8 1/2"	11	11'- 0"	11	11'- 0"	4	4'- 0"	4	5 1/2"	13'- 1"	5'- 3 1/4"	23'- 1"	8	5 1/2"	13'- 1"	--	----	----	4	12"	9'- 3"	52	20	
12	8	21 1/4"	21 1/4"	8"	11	11'- 0"	11	11'- 0"	6	6'- 0"	4	5 1/2"	13'- 0"	6'- 3 1/4"	25'- 0"	8	5 1/2"	13'- 0"	--	----	----	4	12"	11'- 3"	52	28	
12	10	21 1/4"	21 1/4"	8"	11	11'- 0"	11	11'- 0"	8	8'- 0"	5	5"	13'- 0"	7'- 3 1/4"	26'- 11"	8	5"	13'- 0"	--	----	----	6	11 1/2"	13'- 3"	52	36	
12	12	21 1/4"	21 1/4"	9 1/4"	11	11'- 0"	11	11'- 0"	10	10'- 0"	6	5 1/2"	13'- 2 1/2"	8'- 3 1/4"	28'- 11"	8	5 1/2"	13'- 3"	--	----	----	6	9 1/2"	15'- 3"	52	44	

SINGLE BOX CULVERTS  
30 TO 35 FT. FILLS  
VIRGINIA DEPARTMENT OF TRANSPORTATION

STRUCTURE  
AND  
BRIDGE  
DIVISION