

| DIMENSIONS | | | | | | | | | | REINFORCING STEEL | | | | | | | | | | | | | | | | | | | | | | |
|------------|-------|----------|-------------|---------------------|---------------------|----|---------|----|---------|-------------------|---------|------|-------------|---------|------|-------------|---------|------|-------------|------------|--------|------|-------------|------------|------------|---------|------|-------------|---------|------|-------------|---------|
| SPAN | HGHT | T1 | T2 | T3 | T4 | A | B | C | D | E | F | BH1 | | | BH2 | | | BH3 | | | BH4 | | | BV1 | | | BV2 | | | | | |
| (FT.) | (FT.) | TOP SLAB | BOTTOM SLAB | EXTERIOR WALL (IN.) | INTERIOR WALL (IN.) | | | | | | | SIZE | SPACING C-C | LENGTH | SIZE | SPACING C-C | LENGTH | SIZE | SPACING C-C | a | LENGTH | SIZE | SPACING C-C | a | b | LENGTH | SIZE | SPACING C-C | LENGTH | SIZE | SPACING C-C | LENGTH |
| 3 | 3 | 8" | 8" | 8" | 8" | 13 | 13'- 0" | 13 | 13'- 0" | 1 | 1'- 0" | 4 | 12" | 14'-10" | 4 | 12" | 15'- 0" | 4 | 12" | 2'- 1/4" | 3'-11" | 4 | 12" | 2'- 1/4" | 2'- 8" | 4'- 6" | 4 | 12" | 4'- 0" | 4 | 12" | 4'- 0" |
| 3 | 4 | 8" | 8" | 8" | 8" | 13 | 13'- 0" | 13 | 13'- 0" | 2 | 2'- 0" | 4 | 12" | 14'-10" | 4 | 12" | 15'- 0" | 3 | 12" | 2'- 1/4" | 4'- 0" | 4 | 12" | 2'- 1/4" | 3'- 2" | 5'- 0" | 4 | 12" | 5'- 0" | 4 | 12" | 5'- 0" |
| 4 | 3 | 10" | 10" | 8" | 8" | 17 | 17'- 0" | 17 | 17'- 0" | 1 | 1'- 0" | 4 | 12" | 18'- 5" | 4 | 12" | 19'- 0" | -- | -- | ---- | ---- | 4 | 12" | 2'- 3/8" | 2'-10" | 4'-10" | 4 | 12" | 4'- 4" | 4 | 12" | 4'- 4" |
| 4 | 4 | 9 3/4" | 9 3/4" | 8" | 8" | 17 | 17'- 0" | 17 | 17'- 0" | 2 | 2'- 0" | 4 | 12" | 18'- 5" | 4 | 12" | 19'- 0" | -- | -- | ---- | ---- | 4 | 12" | 2'- 3/8" | 3'- 3 3/4" | 5'- 4" | 4 | 12" | 5'- 3" | 4 | 12" | 5'- 3" |
| 4 | 5 | 9 3/4" | 9 3/4" | 8" | 8" | 17 | 17'- 0" | 17 | 17'- 0" | 3 | 3'- 0" | 4 | 12" | 18'- 5" | 4 | 12" | 19'- 0" | -- | -- | ---- | ---- | 4 | 12" | 2'- 3/8" | 3'- 9 3/4" | 5'-10" | 4 | 12" | 6'- 3" | 4 | 12" | 6'- 3" |
| 4 | 6 | 9 3/4" | 9 3/4" | 8" | 8" | 17 | 17'- 0" | 17 | 17'- 0" | 4 | 4'- 0" | 4 | 12" | 18'- 5" | 4 | 12" | 19'- 0" | 4 | 12" | 2'- 3/8" | 4'- 4" | 4 | 12" | 2'- 3/8" | 4'- 3 3/4" | 6'- 4" | 4 | 12" | 7'- 3" | 4 | 12" | 7'- 3" |
| 5 | 3 | 12" | 12" | 8" | 8" | 21 | 21'- 0" | 21 | 21'- 0" | 1 | 1'- 0" | 4 | 11" | 22'- 0" | 4 | 11" | 23'- 0" | -- | -- | ---- | ---- | 4 | 11" | 2'- 6" | 3'- 0" | 5'- 3" | 4 | 12" | 4'- 8" | 4 | 12" | 4'- 8" |
| 5 | 4 | 12" | 12" | 8" | 8" | 21 | 21'- 0" | 21 | 21'- 0" | 2 | 2'- 0" | 4 | 11" | 22'- 0" | 4 | 11" | 23'- 0" | -- | -- | ---- | ---- | 4 | 11" | 2'- 6" | 3'- 6" | 5'- 9" | 4 | 12" | 5'- 8" | 4 | 12" | 5'- 8" |
| 5 | 5 | 11 3/4" | 11 3/4" | 8" | 8" | 21 | 21'- 0" | 21 | 21'- 0" | 3 | 3'- 0" | 4 | 11" | 22'- 0" | 4 | 11" | 23'- 0" | -- | -- | ---- | ---- | 4 | 11" | 2'- 6" | 3'-11 3/4" | 6'- 3" | 4 | 12" | 6'- 8" | 4 | 12" | 6'- 8" |
| 5 | 6 | 11 3/4" | 11 3/4" | 8" | 8" | 21 | 21'- 0" | 21 | 21'- 0" | 4 | 4'- 0" | 4 | 11" | 22'- 0" | 4 | 11" | 23'- 0" | 3 | 11" | 2'- 6" | 4'-10" | 4 | 11" | 2'- 6" | 4'- 5 3/4" | 6'- 9" | 4 | 12" | 7'- 8" | 4 | 12" | 7'- 8" |
| 5 | 7 | 11 3/4" | 11 3/4" | 8" | 8" | 21 | 21'- 0" | 21 | 21'- 0" | 5 | 5'- 0" | 4 | 11" | 22'- 0" | 4 | 11" | 23'- 0" | 4 | 11" | 2'- 6" | 4'- 9" | 4 | 11" | 2'- 6" | 4'-11 3/4" | 7'- 3" | 4 | 8 1/2" | 8'- 8" | 4 | 12" | 8'- 8" |
| 6 | 4 | 13 3/4" | 13 3/4" | 8" | 8" | 25 | 25'- 0" | 25 | 25'- 0" | 2 | 2'- 0" | 4 | 9" | 25'- 7" | 4 | 9" | 27'- 0" | -- | -- | ---- | ---- | 4 | 9" | 2'- 8 3/8" | 3'- 7 3/4" | 6'- 1" | 4 | 12" | 6'- 0" | 4 | 12" | 6'- 0" |
| 6 | 5 | 13 3/4" | 13 3/4" | 8" | 8" | 25 | 25'- 0" | 25 | 25'- 0" | 3 | 3'- 0" | 4 | 9" | 25'- 7" | 4 | 9" | 27'- 0" | -- | -- | ---- | ---- | 4 | 9" | 2'- 8 3/8" | 4'- 1 3/4" | 6'- 7" | 4 | 12" | 7'- 0" | 4 | 12" | 7'- 0" |
| 6 | 6 | 13 3/4" | 13 3/4" | 8" | 8" | 25 | 25'- 0" | 25 | 25'- 0" | 4 | 4'- 0" | 4 | 9" | 25'- 7" | 4 | 9" | 27'- 0" | -- | -- | ---- | ---- | 4 | 9" | 2'- 8 3/8" | 4'- 7 3/4" | 7'- 1" | 4 | 12" | 8'- 0" | 4 | 12" | 8'- 0" |
| 6 | 7 | 14" | 14" | 8" | 8" | 25 | 25'- 0" | 25 | 25'- 0" | 5 | 5'- 0" | 4 | 9" | 25'- 7" | 4 | 9" | 27'- 0" | 3 | 9" | 2'- 8 3/8" | 5'- 2" | 4 | 9" | 2'- 8 3/8" | 5'- 2" | 7'- 7" | 4 | 8 1/2" | 9'- 0" | 4 | 12" | 9'- 0" |
| 6 | 8 | 14" | 14" | 8" | 8" | 25 | 25'- 0" | 25 | 25'- 0" | 6 | 6'- 0" | 4 | 9" | 25'- 7" | 4 | 9" | 27'- 0" | -- | -- | ---- | ---- | 5 | 9" | 2'- 8 3/8" | 5'- 8" | 8'- 0" | 4 | 6" | 10'- 0" | 4 | 12" | 10'- 0" |
| 7 | 4 | 15 3/4" | 15 3/4" | 8" | 8" | 29 | 29'- 0" | 29 | 29'- 0" | 2 | 2'- 0" | 5 | 9" | 29'- 2" | 5 | 9" | 31'- 0" | -- | -- | ---- | ---- | 4 | 9" | 2'-10 3/4" | 3'- 9 3/4" | 6'- 5" | 4 | 12" | 6'- 3" | 4 | 11 1/2" | 6'- 3" |
| 7 | 6 | 15 3/4" | 15 3/4" | 8" | 8" | 29 | 29'- 0" | 29 | 29'- 0" | 4 | 4'- 0" | 5 | 9" | 29'- 2" | 5 | 9" | 31'- 0" | -- | -- | ---- | ---- | 4 | 9" | 2'-10 3/4" | 4'- 9 3/4" | 7'- 5" | 4 | 12" | 8'- 3" | 4 | 11 1/2" | 8'- 3" |
| 7 | 8 | 15 3/4" | 15 3/4" | 8" | 8" | 29 | 29'- 0" | 29 | 29'- 0" | 6 | 6'- 0" | 5 | 9" | 29'- 2" | 5 | 9" | 31'- 0" | 3 | 9" | 2'-10 3/4" | 5'- 7" | 4 | 9" | 2'-10 3/4" | 5'- 9 3/4" | 8'- 5" | 4 | 6" | 10'- 3" | 4 | 11 1/2" | 10'- 3" |
| 7 | 10 | 15 3/4" | 15 3/4" | 8 1/2" | 8" | 29 | 29'- 0" | 29 | 29'- 0" | 8 | 8'- 0" | 5 | 9" | 29'- 2" | 5 | 9" | 31'- 1" | 3 | 9" | 2'-11 1/4" | 5'- 8" | 5 | 9" | 2'-11 1/4" | 6'- 9 3/4" | 9'- 5" | 5 | 6 1/2" | 12'- 3" | 4 | 12" | 12'- 3" |
| 8 | 4 | 17 3/4" | 17 3/4" | 8" | 8" | 33 | 33'- 0" | 33 | 33'- 0" | 2 | 2'- 0" | 5 | 9" | 32'-10" | 5 | 9" | 35'- 0" | -- | -- | ---- | ---- | 4 | 9" | 3'- 1 1/4" | 3'-11 3/4" | 6'-10" | 4 | 12" | 6'- 7" | 4 | 10 1/2" | 6'- 7" |
| 8 | 6 | 17 3/4" | 17 3/4" | 8" | 8" | 33 | 33'- 0" | 33 | 33'- 0" | 4 | 4'- 0" | 5 | 8" | 32'-10" | 5 | 8" | 35'- 0" | -- | -- | ---- | ---- | 4 | 8" | 3'- 1 1/4" | 4'-11 3/4" | 7'-10" | 4 | 12" | 8'- 7" | 4 | 10 1/2" | 8'- 7" |
| 8 | 8 | 17 3/4" | 17 3/4" | 8" | 8" | 33 | 33'- 0" | 33 | 33'- 0" | 6 | 6'- 0" | 5 | 8" | 32'-10" | 5 | 8" | 35'- 0" | 3 | 8" | 3'- 1 1/4" | 6'- 0" | 4 | 8" | 3'- 1 1/4" | 5'-11 3/4" | 8'-10" | 4 | 6" | 10'- 7" | 4 | 10 1/2" | 10'- 7" |
| 8 | 10 | 17 3/4" | 17 3/4" | 8 1/2" | 8" | 33 | 33'- 0" | 33 | 33'- 0" | 8 | 8'- 0" | 5 | 8" | 32'-10" | 5 | 8" | 35'- 1" | 3 | 8" | 3'- 1 3/4" | 6'- 1" | 5 | 8" | 3'- 1 3/4" | 6'-11 3/4" | 9'-10" | 6 | 9" | 12'- 7" | 4 | 10 1/2" | 12'- 7" |
| 9 | 4 | 20" | 20" | 8" | 8" | 37 | 37'- 0" | 37 | 37'- 0" | 2 | 2'- 0" | 6 | 9" | 36'- 5" | 6 | 9" | 39'- 0" | -- | -- | ---- | ---- | 4 | 9" | 3'- 3 5/8" | 4'- 2" | 7'- 2" | 4 | 12" | 7'- 0" | 4 | 10" | 7'- 0" |
| 9 | 6 | 20" | 20" | 8" | 8" | 37 | 37'- 0" | 37 | 37'- 0" | 4 | 4'- 0" | 6 | 9" | 36'- 5" | 6 | 9" | 39'- 0" | -- | -- | ---- | ---- | 4 | 9" | 3'- 3 5/8" | 5'- 2" | 8'- 2" | 4 | 12" | 9'- 0" | 4 | 10" | 9'- 0" |
| 9 | 8 | 20" | 20" | 8" | 8" | 37 | 37'- 0" | 37 | 37'- 0" | 6 | 6'- 0" | 6 | 9" | 36'- 5" | 6 | 9" | 39'- 0" | -- | -- | ---- | ---- | 5 | 9" | 3'- 3 5/8" | 6'- 2" | 9'- 2" | 4 | 6" | 11'- 0" | 4 | 10" | 11'- 0" |
| 9 | 10 | 20" | 20" | 8 1/2" | 8" | 37 | 37'- 0" | 37 | 37'- 0" | 8 | 8'- 0" | 6 | 9" | 36'- 5" | 6 | 9" | 39'- 1" | -- | -- | ---- | ---- | 6 | 9" | 3'- 4 1/8" | 7'- 2" | 10'- 1" | 6 | 9" | 13'- 0" | 4 | 10" | 13'- 0" |
| 9 | 12 | 20" | 20" | 10" | 8" | 37 | 37'- 0" | 37 | 37'- 0" | 10 | 10'- 0" | 6 | 9" | 36'- 5" | 6 | 9" | 39'- 4" | 3 | 9" | 3'- 5 5/8" | 6'- 9" | 6 | 9" | 3'- 5 5/8" | 8'- 2" | 11'- 3" | 7 | 10 1/2" | 15'- 0" | 4 | 10" | 15'- 0" |
| 10 | 4 | 22 1/2" | 22 1/2" | 8" | 8" | 41 | 41'- 0" | 41 | 41'- 0" | 2 | 2'- 0" | 6 | 9" | 40'- 0" | 6 | 9" | 43'- 0" | -- | -- | ---- | ---- | 4 | 9" | 3'- 6" | 4'- 4 1/2" | 7'- 7" | 4 | 12" | 7'- 5" | 4 | 10" | 7'- 5" |
| 10 | 6 | 22 1/2" | 22 1/2" | 8" | 8" | 41 | 41'- 0" | 41 | 41'- 0" | 4 | 4'- 0" | 6 | 9" | 40'- 0" | 6 | 9" | 43'- 0" | -- | -- | ---- | ---- | 4 | 9" | 3'- 6" | 5'- 4 1/2" | 8'- 7" | 4 | 12" | 9'- 5" | 4 | 10" | 9'- 5" |
| 10 | 8 | 22 1/2" | 22 1/2" | 8" | 8" | 41 | 41'- 0" | 41 | 41'- 0" | 6 | 6'- 0" | 6 | 9" | 40'- 0" | 6 | 9" | 43'- 0" | 3 | 9" | 3'- 6" | 6'-10" | 4 | 9" | 3'- 6" | 6'- 4 1/2" | 9'- 7" | 5 | 9" | 11'- 5" | 4 | 10" | 11'- 5" |
| 10 | 10 | 22 1/2" | 22 1/2" | 8 1/2" | 8" | 41 | 41'- 0" | 41 | 41'- 0" | 8 | 8'- 0" | 7 | 9" | 40'- 0" | 6 | 9" | 43'- 1" | -- | -- | ---- | ---- | 6 | 9" | 3'- 6 1/2" | 7'- 4 1/2" | 10'- 6" | 5 | 6" | 13'- 5" | 4 | 10" | 13'- 5" |
| 10 | 12 | 22 1/2" | 22 1/2" | 10" | 8" | 41 | 41'- 0" | 41 | 41'- 0" | 10 | 10'- 0" | 6 | 9" | 40'- 0" | 6 | 9" | 43'- 4" | 3 | 9" | 3'- 8" | 7'- 2" | 6 | 9" | 3'- 8" | 8'- 4 1/2" | 11'- 8" | 6 | 7 1/2" | 15'- 5" | 4 | 10" | 15'- 5" |
| 12 | 6 | 26 1/2" | 26 1/2" | 8" | 8" | 49 | 49'- 0" | 49 | 49'- 0" | 4 | 4'- 0" | 6 | 8" | 47'- 2" | 6 | 8" | 51'- 0" | -- | -- | ---- | ---- | 4 | 8" | 3'-10 3/4" | 5'- 8 1/2" | 9'- 4" | 4 | 11" | 10'- 1" | 4 | 9" | 10'- 1" |
| 12 | 8 | 26 1/2" | 26 1/2" | 8" | 8" | 49 | 49'- 0" | 49 | 49'- 0" | 6 | 6'- 0" | 6 | 8" | 47'- 2" | 6 | 8" | 51'- 0" | -- | -- | ---- | ---- | 4 | 8" | 3'-10 3/4" | 6'- 8 1/2" | 10'- 4" | 4 | 5 1/2" | 12'- 1" | 4 | 9" | 12'- 1" |
| 12 | 10 | 26 1/4" | 26 1/4" | 8 1/2" | 8" | 49 | 49'- 0" | 49 | 49'- 0" | 8 | 8'- 0" | 6 | 8" | 47'- 2" | 6 | 8" | 51'- 1" | 3 | 8" | 3'-11 1/4" | 7'- 8" | 5 | 8" | 3'-11 1/4" | 7'- 8 1/4" | 11'- 4" | 6 | 8" | 14'- 0" | 4 | 9" | 14'- 0" |
| 12 | 12 | 26 1/2" | 26 1/2" | 10" | 8" | 49 | 49'- 0" | 49 | 49'- 0" | 10 | 10'- 0" | 6 | 8" | 47'- 2" | 6 | 8" | 51'- 4" | 4 | 8" | 4'- 3/4" | 7'-10" | 5 | 8" | 4'- 3/4" | 8'- 8 1/2" | 12'- 5" | 5 | 5" | 16'- 1" | 4 | 9" | 16'- 1" |

QUADRUPLE BOX CULVERTS

35 TO 40 FT. FILLS

VIRGINIA DEPARTMENT OF TRANSPORTATION

STRUCTURE
AND
BRIDGE
DIVISION