

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

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

**VDOT**  
ROAD AND BRIDGE STANDARDS

|              |               |
|--------------|---------------|
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**QUADRUPLE BOX CULVERTS**  
20 TO 25 FT. FILLS  
VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE