| HORIZONTAL INSTALLATION | | | | |
|-------------------------|-----------------------|------------------------------|---------|--|
| EQUIVALENT | SPAN X RISE INCHES | MAX. HEIGHT OF COVER IN FEET | | |
| ROUND SIZE | | CLASS | | |
| INCHES | | HE - III | HE - IV | |
| 18 | 23 x 14 | 13' | 21' | |
| 24 | 30 x 19 | 13' | 21' | |
| 27 | 34 x 22 | 13' | 21' | |
| 30 | 38 x 24 | 13' | 21' | |
| 33 | 42 x 27 | 13' | 21' | |
| 36 | 45 x 29 | 13' | 21' | |
| 39 | 49 x 32 | 13' | 21' | |
| 42 | 53 x 34 | 13' | 21' | |
| 48 | 60 × 38 | 13' | 21' | |
| 54 | 68 x 43 | 13' | 21' | |
| 60 | 76 x 48 | 13' | 21' | |
| 66 | 83 x 53 | 13' | 21' | |
| 72 | 91 x 58 | 13' | 21' | |
| 78 | 98 x 63 | 13' | 21' | |
| 84 | 106 x 68 | 13' | 21' | |

| VERTICAL INSTALLATION RISE | | | | |
|----------------------------|------------------------------|---------|--------|--|
| SPAN X RISE INCHES | MAX. HEIGHT OF COVER IN FEET | | | |
| | CLASS | | | |
| | VE - III | VE - IV | VE - V | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| 29 x 45 | 13 | 21 | 29 | |
| 32 × 49 | 13 | 21 | 29 | |
| 34 x 53 | 13 | 21 | 29 | |
| 38 x 60 | 13 | 21 | 29 | |
| 43 x 68 | 13 | 21 | 29 | |
| 48 x 76 | 13 | 21 | 29 | |
| 53 x 83 | 13 | 21 | 29 | |
| 58 x 91 | 13 | 21 | 29 | |
| 63 x 98 | 13 | 21 | 29 | |
| 68 x 106 | 13 | 21 | 29 | |

NOTES:

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- 1. COVER HEIGHTS INDICATED IN TABLES ARE FOR FINISHED CONSTRUCTION.
- 2. TO PROTECT PIPE DURING CONSTRUCTION, MINIMUM HEIGHTS OF COVER PRIOR TO ALLOWING CONSTRUCTION TRAFFIC TO CROSS INSTALLATION ARE TO BE 1/2 SPAN OR 3', WHICHEVER IS GREATER. THE COVER SHALL EXTEND THE FULL LENGTH OF THE PIPE. THE APPROACH FILL RAMP IS TO EXTEND A MINIMUM OF 10(SPAN + 36") ON EACH SIDE OF THE PIPE OR TO THE INTERSECTION WITH A CUT.
- 3. STANDARD MINIMUM FINISHED HEIGHT OF COVER FOR ALL PIPES SHALL BE 2.0' OR 1/2 SPAN, WHICHEVER IS GREATER. IN CASES IN WHICH THESE COVER HEIGHTS CANNOT BE ACHIEVED, AN ABSOLUTE MINIMUM FINSHED COVER HEIGHT OF 1.0' WILL BE ALLOWED ONLY IF ALL POSSIBLE MEANS TO OBTAIN THE STANDARD VALUE HAVE BEEN EXHAUSTED. MINIMUM FINISHED HEIGHT OF COVER FOR PIPE UNDER ENTRANCES IS 9".
- 4. SEE STANDARD PB-1 FOR PIPE BEDDING AND BACKFILL REQUIREMENTS.

| SPECIFICATION REFERENCE | RE |
|----------------------------|--------|
| 302 | HEIGHT |

INFORCED ELLIPTICAL CONCRETE PIPE OF COVER TABLES FOR H-20 LIVE LOAD

REVISION DATE

VIRGINIA DEPARTMENT OF TRANSPORTATION

ROAD AND BRIDGE STANDARDS SHEET 2 OF 18 107.06

****VDOT