	HORIZONTAL INSTALLATION		HSPANH RISE
EQUIVALENT		MAX. HEIGHT OF COVER IN FEET	
ROUND SIZE	SPAN X RISE INCHES	CLASS	
INCHES		HE - III	HE - IV
18	23 x 14	13'	21'
24	30 x 19	13'	21'
27	34 × 22	13'	21'
30	38 × 24	13'	21'
33	42 × 27	13'	21'
36	45 × 29	13'	21'
39	49 x 32	13'	21'
42	53 x 34	13'	21'
48	60 x 38	13'	21'
54	68 x 43	13'	21'
60	76 × 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		SPAN   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 × 53	13	21	29
38 × 60	13	21	29
43 × 68	13	21	29
48 × 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:

- 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 FINISHED 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.

SHEET 2 OF 18

SPECIFICATION

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

REFERENCE 302 232

VIRGINIA DEPARTMENT OF TRANSPORTATION