

**CORRUGATED STEEL PIPE  
2 2/3" x 1/2" CORRUGATIONS**

PIPE DIAMETER INCHES	AREA SQ. FT.	MAXIMUM HEIGHT OF COVER IN FEET					MINIMUM SHEET THICKNESS FOR ENTRANCE PIPES WITH LESS THAN 1 FT COVER INCHES (GAUGE)
		SHEET THICKNESS IN INCHES (GAUGE)					
		0.064 (16)	0.079 (14)	0.109 (12)	0.138 (10)	0.168 (8)	
12	0.79	18	100				0.064 (16)
15	1.23	18	80	100	100		0.064 (16)
18	1.77	18	55	71	89	94	0.064 (16)
21	2.40	18	41	51	62	74	0.079 (14)
24	3.14	17	33	40	47	55	0.109 (12)
27	3.98	17	28	33	38	44	
30	4.91	17	25	28	32	36	
33	5.94	17	23	25	28	31	
36	7.1	16	21	23	26	28	
42	9.6	16	20	21	22	24	
48	12.6	15	19	19	20	21	
54	16.0		18	19	19	20	
60	19.6			18	19	19	
66	23.8				18	18	
72	28.3				18	18	
78	33.2					18	
84	38.5					17	

**3" x 1" AND 5" x 1" CORRUGATIONS**

PIPE DIAMETER INCHES	AREA SQ. FT.	MAXIMUM HEIGHT OF COVER IN FEET				
		SHEET THICKNESS IN INCHES (GAUGE)				
		0.064 (16)	0.079 (14)	0.109 (12)	0.138 (10)	0.168 (8)
36	7.1	16	38	47	57	66
42	9.6	16	30	36	42	48
48	12.6	15	26	30	34	38
54	16.0	15	23	26	28	31
60	19.6	14	21	23	25	27
66	23.8	14	20	22	23	25
72	28.3	13	19	20	22	23
78	33.2	13	19	20	21	21
84	38.5	12	18	19	20	21
90	44.2	12	18	19	19	20
96	50.3		18	18	19	19
102	56.7		18	18	18	19
108	63.6			18	18	18
114	70.9			18	18	18
120	78.5			17	18	18
132	95.0				17	18
144	113.0					17

**NOTES:**

- COVER HEIGHTS INDICATED IN TABLES ARE FOR FINISHED CONSTRUCTION.
- TO PROTECT PIPE DURING CONSTRUCTION, MINIMUM HEIGHT OF COVER TO BE IN ACCORDANCE WITH TABLE A PRIOR TO ALLOWING CONSTRUCTION TRAFFIC TO CROSS INSTALLATION. THE COVER SHALL EXTEND THE FULL LENGTH OF THE PIPE. THE APPROACH FILL RAMP IS TO EXTEND A MINIMUM OF 15 DIAMETERS ON EACH SIDE OF THE PIPE OR THE INTERSECTION WITH A CUT.
- STANDARD MINIMUM FINISHED HEIGHT OF COVER FOR ALL PIPES, EXCEPT UNDER ENTRANCES, SHALL BE 2.0' OR 1/2 DIAMETER, WHICHEVER IS GREATER. IN CASES IN WHICH THESE COVER HEIGHTS CANNOT BE ACHIEVED, AN ABSOLUTE MINIMUM FINISHED COVER HEIGHT OF 1.0' OR 1/8 DIAMETER, WHICHEVER IS GREATER, WILL BE ALLOWED ONLY IF ALL POSSIBLE MEANS TO OBTAIN THE STANDARD VALUE HAVE BEEN EXHAUSTED. THE MINIMUM FINISHED HEIGHT OF COVER FOR PIPES UNDER ENTRANCES IS 9" FOR PIPE DIAMETERS LESS THAN OR EQUAL TO 24" AND 12" OR 1/8 DIAMETER, WHICHEVER IS GREATER, FOR PIPE DIAMETERS GREATER THAN 24". WHERE A POLYMER COATED PIPE WILL BE USED AND THE SURFACE OVER THE TOP OF THE PIPE WILL BE ASPHALT, CLASS 1 BACKFILL MATERIAL IS TO BE PLACED UP TO A MINIMUM OF 6" ABOVE THE TOP OF THE PIPE.
- 16 GAUGE PIPE LIMITED TO THOSE LOCATIONS WHERE PIPE DIAMETER PLUS COVER IS LESS THAN 20'.
- THE MAXIMUM HEIGHT OF COVER SHOWN IN THE COVER TABLES IS BASED ON A SOIL MODULUS OF 700 PSI. ALL OTHER DESIGN CRITERIA ARE IN ACCORDANCE WITH THE AASHTO SPECIFICATIONS AND VDOT MODIFICATIONS FOR SOIL CORRUGATED METAL STRUCTURE INTERACTION SYSTEMS.
- SEE STANDARD PB-1 FOR PIPE BEDDING AND BACKFILL REQUIREMENTS.

TABLE A	
PIPE DIAMETER	MINIMUM COVER HEIGHT DURING CONSTRUCTION (SEE NOTE 2)
12" TO 30"	18"
36" AND ABOVE	1/2 DIAMETER

CONCRETE- LINED CORRUGATED STEEL PIPE
MAXIMUM HEIGHT OF COVER TO BE IN ACCORDANCE WITH THE TABLES BUT SHALL NOT EXCEED 30'.



ROAD AND BRIDGE STANDARDS

**CORRUGATED STEEL PIPE  
HEIGHT OF COVER TABLES FOR H-20 LIVE LOAD**

SPECIFICATION REFERENCE

SHEET 3 OF 18

REVISION DATE

107.07

VIRGINIA DEPARTMENT OF TRANSPORTATION

302  
232