

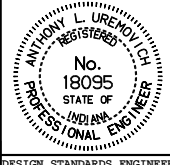
**230 mm x 64 mm STRUCTURAL PLATE ALUMINUM ALLOY PIPE (STEEL BOLTED)  
HEIGHT OF COVER LIMITS (m)**

	AREA (m <sup>2</sup> )	DIAMETER (mm)	THICKNESS (mm)									
			2.54		3.18		3.81		4.44		5.08	
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
	1.77	1500	0.30	9.4	0.30	13.7	0.30	18.3	0.30	21.3	0.30	24.7
	2.15	1655	0.30	8.5	0.30	12.5	0.30	16.5	0.30	19.5	0.30	22.6
	2.57	1810	0.30	7.6	0.30	11.3	0.30	15.2	0.30	17.7	0.30	20.4
	3.03	1965	0.30	7.0	0.30	10.7	0.30	14.0	0.30	16.5	0.30	18.9
	3.84	2120	0.30	6.7	0.30	9.8	0.30	12.8	0.30	15.2	0.30	17.7
	4.06	2275	0.34	6.1	0.30	9.1	0.30	12.2	0.30	14.3	0.30	16.5
	4.64	2430	0.34	5.8	0.30	8.5	0.30	11.3	0.30	13.4	0.30	15.2
	5.25	2585	0.34	5.5	0.34	7.9	0.34	10.7	0.34	12.5	0.34	14.3
	5.90	2740	0.37	5.2	0.37	7.6	0.37	10.1	0.37	11.9	0.37	13.7
	6.58	2895	0.40	4.9	0.37	7.0	0.37	9.4	0.37	11.3	0.37	12.8
	7.31	3050	0.40	4.6	0.40	6.7	0.40	9.1	0.40	10.7	0.40	12.2
	8.07	3205	0.43	4.3	0.43	6.4	0.43	8.5	0.43	10.1	0.43	11.6
	8.87	3360	0.43	4.3	0.43	6.1	0.43	8.2	0.43	9.8	0.43	11.3
	9.70	3515	0.46	4.0	0.46	5.8	0.46	7.9	0.46	9.1	0.46	10.7
	10.58	3670	0.49	3.7	0.46	5.5	0.46	7.6	0.46	8.8	0.46	10.1
	11.49	3825			0.49	5.5	0.49	7.3	0.49	8.5	0.49	9.8
	12.44	3980			0.52	5.2	0.52	7.0	0.52	8.2	0.52	9.4
	13.43	4135					0.52	6.7	0.52	7.9	0.52	9.1
	14.45	4290					0.55	6.4	0.55	7.6	0.55	8.8
	15.52	4445					0.58	6.1	0.58	7.3	0.58	8.5
	16.62	4600							0.58	7.0	0.58	8.2
	17.76	4755							0.61	6.7	0.61	7.9
	18.93	4910									0.61	7.6
	20.15	5065									0.64	7.3
	21.40	5220									0.67	7.0
	22.69	5375										
	24.02	5530										
	25.38	5685										
	26.79	5840										

**NOTE:**

- The tabulated cover depths shall be measured from the bottom of the bituminous or concrete pavement to the top of the pipe.

All dimensions are in mm unless otherwise specified.

INDIANA DEPARTMENT OF TRANSPORTATION	
<b>PIPE HEIGHT OF COVER LIMITS</b>	
JANUARY 1998	
STANDARD DRAWING NO. 717-PHCL-01	
	/s/ Anthony L. Uremovich 1-02-98 DESIGN STANDARDS ENGINEER DATE
Source Sheet: NONE	/s/ Donald W. Lucas 1-02-98 CHIEF HIGHWAY ENGINEER DATE