

**6" x 2" STRUCTURAL PLATE STEEL PIPE-ARCH (BOLTED)  
HEIGHT OF COVER LIMITS (ft.)**

Rc (in.)	SPAN (ft.-in.)	RISE (ft.-in.)	AREA (sft)	THICKNESS (in.)							
				0.111		0.140 thru 0.280					
				MIN.	MAX.	MIN.	MAX.				
31	15-4	10-4	123	1.9	10.5	1.9	10.5				
31	15-7	10-6	127	2.0	10.3	2.0	10.3				
31	15-10	10-8	132	2.0	10.1	2.0	10.1				
31	16-3	10-10	137	2.0	9.7	2.0	9.7				
31	16-6	11-11	142	2.1	9.5	2.1	9.5				
31	17-0	11-2	146	2.1	9.2	2.1	9.2				
31	17-2	11-4	151	2.2	9.1	2.2	9.1				
31	17-5	11-6	157	2.2	8.9	2.2	8.9				
31	17-6	11-8	161	2.2	8.6	2.2	8.6				
31	18-1	11-10	167	2.3	8.5	2.3	8.5				
31	18-7	12-0	172	2.3	8.2	2.3	8.2				
31	18-9	12-2	177	2.3	8.0	2.3	8.0				
31	19-3	12-4	182			2.4	7.7				
31	19-6	12-6	188			2.4	7.6				
31	19-8	12-8	194			2.5	7.5				
31	19-11	12-10	200			2.5	7.4				
31	20-5	13-0	205			2.6	7.1				
31	20-7	13-2	211			2.6	7.0				

**NOTE:**

- The tabulated cover depths shall be measured from the bottom of the asphalt or concrete pavement to the top of the pipe.
- A specific design shall be performed for structures with corner radii other than those tabulated above to determine the appropriate cover depth limits.
- The tabulated plate thickness reflects the required thickness for top and side plates. Refer to 908.09 (a) for the required bottom plate thickness.

INDIANA DEPARTMENT OF TRANSPORTATION

**PIPE HEIGHT OF  
COVER LIMITS**

JANUARY 1998

STANDARD DRAWING NO. E 717-PHCL-10

DETAILS PLACED IN THIS FORMAT 11-15-99



/s/ Anthony L. Uremovich 11-15-99  
DESIGN STANDARDS ENGINEER DATE

/s/ Firooz Zandi 11-15-99  
CHIEF HIGHWAY ENGINEER DATE

DESIGN STANDARDS ENGINEER

ORIGINALLY APPROVED 1-02-98