

**REINFORCED CONCRETE CIRCULAR PIPE
HEIGHT OF COVER LIMITS (m)**

| DIAMETER (mm) | Strength Class/D-load Rating | | | | | | | | | | | |
|------------------|---------------------------------|------|----------------------------------|------|----------------------------------|------|---------------------------------|------|---------------------------------|------|----------------------------------|------|
| | Class II: D _{0.3} = 50 | | Class III: D _{0.3} = 60 | | Class III: D _{0.3} = 65 | | Class IV: D _{0.3} = 75 | | Class IV: D _{0.3} = 85 | | Class IV: D _{0.3} = 100 | |
| | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. |
| 300 | 0.43 | 1.8 | 0.34 | 3.0 | 0.34 | 3.7 | 0.30 | 4.6 | 0.30 | 7.3 | 0.30 | 30.5 |
| 375 | 0.34 | 2.4 | 0.30 | 3.7 | 0.30 | 4.3 | 0.30 | 5.8 | 0.30 | 10.7 | 0.30 | 30.5 |
| 450 | 0.30 | 2.7 | 0.30 | 4.3 | 0.30 | 5.2 | 0.30 | 6.7 | 0.30 | 15.8 | 0.30 | 30.5 |
| 525 | 0.30 | 3.0 | 0.30 | 4.6 | 0.30 | 5.5 | 0.30 | 7.3 | 0.30 | 25.6 | 0.30 | 30.5 |
| 600 | 0.30 | 3.4 | 0.30 | 5.2 | 0.30 | 6.1 | 0.30 | 7.9 | 0.30 | 25.9 | 0.30 | 30.5 |
| 675 | 0.30 | 3.0 | 0.30 | 4.0 | 0.30 | 4.6 | 0.30 | 5.8 | 0.30 | 7.9 | 0.30 | 12.8 |
| 750 | 0.30 | 3.0 | 0.30 | 4.3 | 0.30 | 4.9 | 0.30 | 6.1 | 0.30 | 8.5 | 0.30 | 13.4 |
| 825 | 0.30 | 3.0 | 0.30 | 4.6 | 0.30 | 5.2 | 0.30 | 6.1 | 0.30 | 8.8 | 0.30 | 13.7 |
| 900 | 0.30 | 3.4 | 0.30 | 4.6 | 0.30 | 5.2 | 0.30 | 6.4 | 0.30 | 8.8 | 0.30 | 13.7 |
| 1050 | 0.30 | 3.4 | 0.30 | 4.9 | 0.30 | 5.5 | 0.30 | 6.7 | 0.30 | 9.1 | 0.30 | 13.4 |
| 1200 | 0.30 | 3.7 | 0.30 | 5.2 | 0.30 | 5.8 | 0.30 | 6.7 | 0.30 | 9.1 | 0.30 | 13.1 |
| 1350 | 0.30 | 3.7 | 0.30 | 5.2 | 0.30 | 5.8 | 0.30 | 7.0 | 0.30 | 9.4 | 0.30 | 12.8 |
| 1500 | 0.30 | 3.0 | 0.30 | 4.0 | 0.30 | 4.3 | 0.30 | 5.2 | 0.30 | 6.4 | 0.30 | 7.9 |
| 1650 | 0.30 | 3.0 | 0.30 | 4.3 | 0.30 | 4.6 | 0.30 | 5.2 | 0.30 | 6.4 | 0.30 | 7.9 |
| 1800 | 0.30 | 3.4 | 0.30 | 4.3 | 0.30 | 4.6 | 0.30 | 5.5 | 0.30 | 6.7 | 0.30 | 8.2 |
| 1950 | 0.30 | 3.4 | 0.30 | 4.3 | 0.30 | 4.9 | 0.30 | 5.5 | 0.30 | 6.7 | 0.30 | 8.2 |
| 2100 | 0.30 | 3.4 | 0.30 | 4.6 | 0.30 | 4.9 | 0.30 | 5.8 | 0.30 | 7.0 | 0.30 | 8.5 |
| 2250 | 0.30 | 3.4 | 0.30 | 4.6 | 0.30 | 4.9 | 0.30 | 5.8 | 0.30 | 7.0 | 0.30 | 8.5 |
| 2400 | 0.30 | 3.4 | 0.30 | 4.6 | 0.30 | 5.2 | 0.30 | 5.8 | 0.30 | 7.0 | 0.30 | 8.5 |
| 2550 | 0.34 | 3.7 | 0.34 | 4.6 | 0.34 | 5.2 | 0.34 | 5.8 | 0.34 | 7.3 | 0.34 | 8.8 |
| 2700 | 0.37 | 3.7 | 0.37 | 4.6 | 0.37 | 5.2 | 0.37 | 6.1 | 0.37 | 7.3 | 0.37 | 8.8 |
| 2850 | 0.37 | 3.7 | 0.37 | 4.9 | 0.37 | 5.2 | 0.37 | 6.1 | 0.37 | 7.3 | 0.37 | 8.8 |
| 3000 | 0.40 | 3.7 | 0.40 | 4.9 | 0.40 | 5.2 | 0.40 | 6.1 | 0.40 | 7.3 | 0.40 | 8.8 |
| 3150 | 0.43 | 3.7 | 0.43 | 4.9 | 0.43 | 5.5 | 0.43 | 6.1 | 0.43 | 7.3 | 0.43 | 8.8 |
| 3300 | 0.43 | 3.7 | 0.43 | 4.9 | 0.43 | 5.5 | 0.43 | 6.1 | 0.43 | 7.6 | 0.43 | 8.8 |
| 3450 | 0.46 | 3.7 | 0.46 | 4.9 | 0.46 | 5.5 | 0.46 | 6.1 | 0.46 | 7.6 | 0.46 | 8.8 |
| 3600 | 0.46 | 3.7 | 0.46 | 4.9 | 0.46 | 5.5 | 0.46 | 6.1 | 0.46 | 7.6 | 0.46 | 8.8 |
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NOTE:

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

INDIANA DEPARTMENT OF TRANSPORTATION

**PIPE HEIGHT OF
COVER LIMITS**

**REINFORCED CONCRETE CIRCULAR PIPE
HEIGHT OF COVER LIMITS (m)**

| DIAMETER (mm) | Strength Class/D-load Rating | | | | | | | | | |
|------------------|---------------------------------|------|---------------------------------|------|---------------------------------|------|---------------------------------|------|---------------------------------------|------|
| | Class V: D _{0.3} = 110 | | Class V: D _{0.3} = 125 | | Class V: D _{0.3} = 135 | | Class V: D _{0.3} = 140 | | Class Special: D _{0.3} = 150 | |
| | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. |
| 300 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 375 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 450 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 525 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 600 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 675 | 0.30 | 28.0 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 750 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 825 | 0.30 | 27.1 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 900 | 0.30 | 24.1 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 1050 | 0.30 | 20.7 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 1200 | 0.30 | 18.6 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 1350 | 0.30 | 17.4 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 | 0.30 | 30.5 |
| 1500 | 0.30 | 9.1 | 0.30 | 11.3 | 0.30 | 13.7 | 0.30 | 17.4 | 0.30 | 22.9 |
| 1650 | 0.30 | 9.4 | 0.30 | 11.6 | 0.30 | 14.0 | 0.30 | 17.4 | 0.30 | 22.6 |
| 1800 | 0.30 | 9.8 | 0.30 | 11.6 | 0.30 | 14.3 | 0.30 | 17.4 | 0.30 | 22.3 |
| 1950 | 0.30 | 9.8 | 0.30 | 11.9 | 0.30 | 14.3 | 0.30 | 17.4 | 0.30 | 21.9 |
| 2100 | 0.30 | 10.1 | 0.30 | 11.9 | 0.30 | 14.3 | 0.30 | 17.4 | 0.30 | 21.3 |
| 2250 | 0.30 | 10.1 | 0.30 | 12.2 | 0.30 | 14.3 | 0.30 | 17.4 | 0.30 | 21.0 |
| 2400 | 0.30 | 10.1 | 0.30 | 12.2 | 0.30 | 14.3 | 0.30 | 17.1 | 0.30 | 20.7 |
| 2550 | 0.34 | 10.4 | 0.34 | 12.2 | 0.34 | 14.3 | 0.34 | 17.1 | 0.34 | 20.4 |
| 2700 | 0.37 | 10.4 | 0.37 | 12.2 | 0.37 | 14.3 | 0.37 | 16.8 | 0.37 | 20.1 |
| 2850 | 0.37 | 10.4 | 0.37 | 12.2 | 0.37 | 14.3 | 0.37 | 16.8 | 0.37 | 19.8 |
| 3000 | 0.40 | 10.4 | 0.40 | 12.2 | 0.40 | 14.3 | 0.40 | 16.8 | 0.40 | 19.5 |
| 3150 | 0.43 | 10.4 | 0.43 | 12.2 | 0.43 | 14.3 | 0.43 | 16.5 | 0.43 | 19.2 |
| 3300 | 0.43 | 10.4 | 0.43 | 12.2 | 0.43 | 14.0 | 0.43 | 16.5 | 0.43 | 19.2 |
| 3450 | 0.46 | 10.4 | 0.46 | 12.2 | 0.46 | 14.0 | 0.46 | 16.5 | 0.46 | 18.9 |
| 3600 | 0.46 | 10.4 | 0.46 | 12.2 | 0.46 | 14.0 | 0.46 | 16.2 | 0.46 | 18.6 |
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NOTE:

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

INDIANA DEPARTMENT OF TRANSPORTATION

**PIPE HEIGHT OF
COVER LIMITS**

**REINFORCED CONCRETE CIRCULAR PIPE
HEIGHT OF COVER LIMITS (ft.)**

| DIAMETER (in.) | Strength Class/D-load Rating | | | | | | | | | | | |
|-------------------|------------------------------------|------|-------------------------------------|------|-------------------------------------|------|------------------------------------|------|------------------------------------|------|------------------------------------|-------|
| | Class II: D _{0.01} = 1000 | | Class III: D _{0.01} = 1250 | | Class III: D _{0.01} = 1350 | | Class IV: D _{0.01} = 1500 | | Class IV: D _{0.01} = 1750 | | Class IV: D _{0.01} = 2000 | |
| | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. |
| 12 | 1.4 | 6.0 | 1.1 | 10.0 | 1.1 | 12.0 | 1.0 | 15.0 | 1.0 | 24.0 | 1.0 | 100.0 |
| 15 | 1.1 | 8.0 | 1.0 | 12.0 | 1.0 | 14.0 | 1.0 | 19.0 | 1.0 | 35.0 | 1.0 | 100.0 |
| 18 | 1.0 | 9.0 | 1.0 | 14.0 | 1.0 | 17.0 | 1.0 | 22.0 | 1.0 | 52.0 | 1.0 | 100.0 |
| 21 | 1.0 | 10.0 | 1.0 | 15.0 | 1.0 | 18.0 | 1.0 | 24.0 | 1.0 | 84.0 | 1.0 | 100.0 |
| 24 | 1.0 | 11.0 | 1.0 | 17.0 | 1.0 | 20.0 | 1.0 | 26.0 | 1.0 | 85.0 | 1.0 | 100.0 |
| 27 | 1.0 | 10.0 | 1.0 | 13.0 | 1.0 | 15.0 | 1.0 | 19.0 | 1.0 | 26.0 | 1.0 | 42.0 |
| 30 | 1.0 | 10.0 | 1.0 | 14.0 | 1.0 | 16.0 | 1.0 | 20.0 | 1.0 | 28.0 | 1.0 | 44.0 |
| 33 | 1.0 | 10.0 | 1.0 | 15.0 | 1.0 | 17.0 | 1.0 | 20.0 | 1.0 | 29.0 | 1.0 | 45.0 |
| 36 | 1.0 | 11.0 | 1.0 | 15.0 | 1.0 | 17.0 | 1.0 | 21.0 | 1.0 | 29.0 | 1.0 | 45.0 |
| 42 | 1.0 | 11.0 | 1.0 | 16.0 | 1.0 | 18.0 | 1.0 | 22.0 | 1.0 | 30.0 | 1.0 | 44.0 |
| 48 | 1.0 | 12.0 | 1.0 | 17.0 | 1.0 | 19.0 | 1.0 | 22.0 | 1.0 | 30.0 | 1.0 | 43.0 |
| 54 | 1.0 | 12.0 | 1.0 | 17.0 | 1.0 | 19.0 | 1.0 | 23.0 | 1.0 | 31.0 | 1.0 | 42.0 |
| 60 | 1.0 | 10.0 | 1.0 | 13.0 | 1.0 | 14.0 | 1.0 | 17.0 | 1.0 | 21.0 | 1.0 | 26.0 |
| 66 | 1.0 | 10.0 | 1.0 | 14.0 | 1.0 | 15.0 | 1.0 | 17.0 | 1.0 | 21.0 | 1.0 | 26.0 |
| 72 | 1.0 | 11.0 | 1.0 | 14.0 | 1.0 | 15.0 | 1.0 | 18.0 | 1.0 | 22.0 | 1.0 | 27.0 |
| 78 | 1.0 | 11.0 | 1.0 | 14.0 | 1.0 | 16.0 | 1.0 | 18.0 | 1.0 | 22.0 | 1.0 | 27.0 |
| 84 | 1.0 | 11.0 | 1.0 | 15.0 | 1.0 | 16.0 | 1.0 | 19.0 | 1.0 | 23.0 | 1.0 | 28.0 |
| 90 | 1.0 | 11.0 | 1.0 | 15.0 | 1.0 | 16.0 | 1.0 | 19.0 | 1.0 | 23.0 | 1.0 | 28.0 |
| 96 | 1.0 | 11.0 | 1.0 | 15.0 | 1.0 | 17.0 | 1.0 | 19.0 | 1.0 | 23.0 | 1.0 | 28.0 |
| 102 | 1.1 | 12.0 | 1.1 | 15.0 | 1.1 | 17.0 | 1.1 | 19.0 | 1.1 | 24.0 | 1.1 | 29.0 |
| 108 | 1.2 | 12.0 | 1.2 | 15.0 | 1.2 | 17.0 | 1.2 | 20.0 | 1.2 | 24.0 | 1.2 | 29.0 |
| 114 | 1.2 | 12.0 | 1.2 | 16.0 | 1.2 | 17.0 | 1.2 | 20.0 | 1.2 | 24.0 | 1.2 | 29.0 |
| 120 | 1.3 | 12.0 | 1.3 | 16.0 | 1.3 | 17.0 | 1.3 | 20.0 | 1.3 | 24.0 | 1.3 | 29.0 |
| 126 | 1.4 | 12.0 | 1.4 | 16.0 | 1.4 | 18.0 | 1.4 | 20.0 | 1.4 | 24.0 | 1.4 | 29.0 |
| 132 | 1.4 | 12.0 | 1.4 | 16.0 | 1.4 | 18.0 | 1.4 | 20.0 | 1.4 | 25.0 | 1.4 | 29.0 |
| 138 | 1.5 | 12.0 | 1.5 | 16.0 | 1.5 | 18.0 | 1.5 | 20.0 | 1.5 | 25.0 | 1.5 | 29.0 |
| 144 | 1.5 | 12.0 | 1.5 | 16.0 | 1.5 | 18.0 | 1.5 | 20.0 | 1.5 | 25.0 | 1.5 | 29.0 |
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NOTE:

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

INDIANA DEPARTMENT OF TRANSPORTATION

**PIPE HEIGHT OF
COVER LIMITS**

**REINFORCED CONCRETE CIRCULAR PIPE
HEIGHT OF COVER LIMITS (ft.)**

| DIAMETER (in.) | Strength Class/D-load Rating | | | | | | | | | |
|-------------------|-----------------------------------|-------|-----------------------------------|-------|-----------------------------------|-------|-----------------------------------|-------|---|-------|
| | Class V: D _{0.01} = 2250 | | Class V: D _{0.01} = 2500 | | Class V: D _{0.01} = 2750 | | Class V: D _{0.01} = 3000 | | Class Special: D _{0.01} = 3250 | |
| | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. | MIN. | MAX. |
| 12 | 1.0 | 100.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 15 | 1.0 | 100.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 18 | 1.0 | 100.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 21 | 1.0 | 100.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 24 | 1.0 | 100.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 27 | 1.0 | 92.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 30 | 1.0 | 100.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 33 | 1.0 | 89.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 36 | 1.0 | 79.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 42 | 1.0 | 68.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 48 | 1.0 | 61.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 54 | 1.0 | 57.0 | 1.0 | 100.0 | 1.0 | 100.5 | 1.0 | 100.5 | 1.0 | 100.5 |
| 60 | 1.0 | 30.0 | 1.0 | 100.0 | 1.0 | 45.0 | 1.0 | 57.0 | 1.0 | 75.0 |
| 66 | 1.0 | 31.0 | 1.0 | 100.0 | 1.0 | 46.0 | 1.0 | 57.0 | 1.0 | 74.0 |
| 72 | 1.0 | 32.0 | 1.0 | 37.0 | 1.0 | 47.0 | 1.0 | 57.0 | 1.0 | 73.0 |
| 78 | 1.0 | 32.0 | 1.0 | 39.0 | 1.0 | 47.0 | 1.0 | 57.0 | 1.0 | 72.0 |
| 84 | 1.0 | 33.0 | 1.0 | 39.0 | 1.0 | 47.0 | 1.0 | 57.0 | 1.0 | 70.0 |
| 90 | 1.0 | 33.0 | 1.0 | 40.0 | 1.0 | 47.0 | 1.0 | 57.0 | 1.0 | 69.0 |
| 96 | 1.0 | 33.0 | 1.0 | 40.0 | 1.0 | 47.0 | 1.0 | 57.0 | 1.0 | 68.0 |
| 102 | 1.1 | 34.0 | 1.1 | 40.0 | 1.1 | 47.0 | 1.1 | 57.0 | 1.1 | 67.0 |
| 108 | 1.2 | 34.0 | 1.2 | 40.0 | 1.2 | 47.0 | 1.2 | 55.0 | 1.2 | 66.0 |
| 114 | 1.2 | 34.0 | 1.2 | 40.0 | 1.2 | 47.0 | 1.2 | 55.0 | 1.2 | 65.0 |
| 120 | 1.3 | 34.0 | 1.3 | 40.0 | 1.3 | 47.0 | 1.3 | 55.0 | 1.3 | 64.0 |
| 126 | 1.4 | 34.0 | 1.4 | 40.0 | 1.4 | 47.0 | 1.4 | 54.0 | 1.4 | 63.0 |
| 132 | 1.4 | 34.0 | 1.4 | 40.0 | 1.4 | 46.0 | 1.4 | 54.0 | 1.4 | 63.0 |
| 138 | 1.5 | 34.0 | 1.5 | 40.0 | 1.5 | 46.0 | 1.5 | 54.0 | 1.5 | 62.0 |
| 144 | 1.5 | 34.0 | 1.5 | 40.0 | 1.5 | 46.0 | 1.5 | 53.0 | 1.5 | 61.0 |
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NOTE:

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

INDIANA DEPARTMENT OF TRANSPORTATION

**PIPE HEIGHT OF
COVER LIMITS**