

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE

| SPAN | RISE | H | R | S | SINGLE PIPE | | DOUBLE PIPE | | TRIPLE PIPE | |
|------|------|------|------|------|-------------|------------------------------------|-------------|------------------------------------|-------------|------------------------------------|
| | | | | | G | m ³ CONC., 2 ANCHORS | G | m ³ CONC., 2 ANCHORS | G | m ³ CONC., 2 ANCHORS |
| 1150 | 730 | 900 | 840 | 1980 | 1680 | 1.6 | 3660 | 3.7 | 5640 | 5.7 |
| 1250 | 795 | 920 | 890 | 2110 | 1790 | 1.7 | 3890 | 3.9 | 6000 | 6.1 |
| 1345 | 855 | 940 | 950 | 2270 | 1900 | 1.9 | 4170 | 4.2 | 6440 | 6.6 |
| 1535 | 975 | 980 | 1060 | 2580 | 2110 | 2.1 | 4700 | 4.8 | 7280 | 7.5 |
| 1730 | 1095 | 1020 | 1170 | 2900 | 2330 | 1.3 | 5240 | 5.4 | 8230 | 8.5 |
| 1920 | 1220 | 1070 | 1270 | 3210 | 2550 | 2.5 | 5750 | 6.0 | 8960 | 9.4 |
| 2110 | 1340 | 1110 | 1380 | 3520 | 2760 | 2.7 | 6280 | 6.6 | 9800 | 10.4 |
| 2305 | 1465 | 1150 | 1490 | 3830 | 2980 | 2.9 | 6810 | 7.2 | 10640 | 11.5 |
| 2495 | 1585 | 1200 | 1600 | 4100 | 3200 | 3.1 | 7300 | 7.8 | 11400 | 12.4 |
| 2690 | 1705 | 1240 | 1710 | 4320 | 3420 | 3.4 | 7740 | 8.2 | 12060 | 13.1 |
| 2880 | 1830 | 1280 | 1820 | 4530 | 3630 | 3.6 | 8170 | 8.7 | 12700 | 13.8 |
| 3070 | 1950 | 1330 | 1920 | 4750 | 3850 | 3.8 | 8590 | 9.2 | 13340 | 14.6 |
| 3265 | 2075 | 1360 | 2030 | 4950 | 4050 | 4.0 | 9010 | 9.6 | 13960 | 15.2 |
| 3455 | 2195 | 1400 | 2130 | 5160 | 4260 | 4.2 | 9420 | 10.1 | 14580 | 15.9 |
| 3648 | 2315 | 1440 | 2240 | 5370 | 4470 | 4.4 | 9850 | 10.5 | 15220 | 16.6 |
| 3840 | 2440 | 1490 | 2350 | 5590 | 4690 | 4.6 | 10290 | 11.0 | 15880 | 17.4 |
| 4225 | 2680 | 1570 | 2560 | 6030 | 5130 | 5.0 | 11150 | 11.9 | 17180 | 18.9 |
| 4610 | 2925 | 1660 | 2780 | 6460 | 5560 | 5.5 | 12020 | 12.9 | 18480 | 20.3 |

CORRUGATED ALUMINUM ALLOY OR STEEL PIPE-ARCH

| SPAN | RISE | H | R | S | SINGLE PIPE | | DOUBLE PIPE | | TRIPLE PIPE | |
|------|------|------|------|------|-------------|------------------------------------|-------------|------------------------------------|-------------|------------------------------------|
| | | | | | G | m ³ CONC., 2 ANCHORS | G | m ³ CONC., 2 ANCHORS | G | m ³ CONC., 2 ANCHORS |
| 1240 | 840 | 920 | 800 | 1910 | 1590 | 1.7 | 3510 | 3.7 | 5420 | 5.9 |
| 1440 | 970 | 940 | 900 | 2210 | 1790 | 1.9 | 4010 | 4.4 | 6220 | 6.8 |
| 1620 | 1110 | 990 | 990 | 2480 | 1970 | 2.1 | 4460 | 4.9 | 6940 | 7.7 |
| 1800 | 1200 | 1020 | 1080 | 2750 | 2150 | 2.3 | 4910 | 5.5 | 7660 | 8.6 |
| 1950 | 1320 | 1070 | 1150 | 2980 | 2300 | 2.5 | 5280 | 6.0 | 8260 | 9.6 |
| 2100 | 1450 | 1120 | 1230 | 3200 | 2450 | 2.7 | 5660 | 6.6 | 8860 | 10.4 |
| 1520 | 1170 | 1150 | 940 | 2330 | 1870 | 2.2 | 4210 | 5.1 | 6540 | 8.0 |
| 1670 | 1300 | 1170 | 1010 | 2560 | 2020 | 2.4 | 4580 | 5.7 | 7140 | 8.9 |
| 1850 | 1400 | 1220 | 1100 | 2830 | 2200 | 2.6 | 5030 | 6.3 | 7860 | 10.0 |
| 2050 | 1500 | 1270 | 1200 | 3130 | 2400 | 2.8 | 5530 | 7.0 | 8660 | 11.1 |
| 2200 | 1620 | 1270 | 1280 | 3350 | 2550 | 3.1 | 5910 | 7.5 | 9260 | 11.9 |
| 2400 | 1720 | 1320 | 1380 | 3650 | 2750 | 3.3 | 6410 | 8.3 | 10060 | 13.2 |
| 2600 | 1820 | 1380 | 1480 | 3850 | 2950 | 3.6 | 6810 | 8.9 | 10660 | 14.1 |
| 2840 | 1920 | 1430 | 1600 | 4090 | 3190 | 3.9 | 7290 | 9.6 | 11380 | 15.1 |
| 2970 | 2020 | 1450 | 1660 | 4220 | 3320 | 4.1 | 7540 | 9.9 | 11760 | 15.7 |
| 3240 | 2120 | 1530 | 1800 | 4490 | 3590 | 4.4 | 8090 | 10.8 | 12580 | 17.1 |
| 3470 | 2220 | 1580 | 1910 | 4720 | 3820 | 4.7 | 8540 | 11.5 | 13260 | 18.0 |
| 3600 | 2320 | 1630 | 1980 | 4850 | 3950 | 5.0 | 8810 | 12.0 | 13660 | 19.0 |


GENERAL NOTES

1. Refer to Standard Drawings 715-SPCA-01 and 715-SPCA-02 for single anchor details.
2. Refer to Standard Drawing 715-MPCA-02 for multiple anchor details.

LEGEND

- H - Anchor height
- R - Dimension from anchor edge to ϕ_c exterior pipe
- S - Dimension between ϕ_c of adjacent pipes
- G - Overall anchor length

All dimensions are in mm unless otherwise specified.

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| INDIANA DEPARTMENT OF TRANSPORTATION | |
| CONCRETE ANCHOR | |
| TABLES | |
| JANUARY 1998 | |
| STANDARD DRAWING NO. 715-ANCH-02 | |
|  | /s/ Anthony L. Uremovich 1-02-98 <small>DESIGN STANDARDS ENGINEER DATE</small> |
| | /s/ Donald W. Lucas 1-02-98 <small>CHIEF HIGHWAY ENGINEER DATE</small> |

Source Sheet: **ME1A**