REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE

SPAN	RISE	H	R	S	SINGLE PIPE		DOUBLE PIPE		TRIPLE PIPE	
					G	CU.YDS.CONC., 2 ANCHORS	G	CU.YDS.CONC., 2 ANCHORS	G	CU.YDS.CONC., 2 ANCHORS
45"	29"	3'-0	2'-9	6'-6	5'-6	2.5	12'-0	5.5	18'-6	8.5
49"	32"	3'-1	2'-11½	6'-11	5'-11	2.7	12'-10	5.9	19'-9	9.2
53"	34"	3'-2	3'-1½	7'-6	6'-3	2.9	13'-9	6.4	21'-3	10.0
60"	38"	3'-3	3'-5½	8'-5	6'-11	3.2	13'-4	7.3	23'-9	11.3
68"	43"	3'-5	3'-10	9'-6	7'-8	3.6	17'-2	8.3	26'-8	13.0
76"	48"	3'-7	4'-2½	10'-7	8'-5	4.1	19'-0	9.4	29'-7	14.8
83"	53"	3'-8	4'-6½	11'-7	9'-1	4.5	20'-8	10.5	32'-3	16.5
91"	58"	3'-10	4'-11	12'-8	9'-10	4.9	22'-6	11.7	35'-2	18.4
98"	63"	4'-0	5'-3	13'-6	10'-6	5.3	24'-0	12.7	37'-6	20.1
106"	68"	4'-2	5'-7½	14'-3	11'-3	5.8	25'-6	13.7	39'-9	21.7
113"	72"	4'-3	5'-11½	14'-11	11'-11	6.2	26'-10	14.6	41'-9	23.0
121"	77"	4'-5	6'-4	15'-8	12'-8	6.7	28'-4	15.7	44'-0	24.6
128"	82"	4'-6	6'-8	16'-4	13'-4	7.2	29'-8	16.6	46'-0	26.1
136"	87"	4'-8	7'-0	17'-0	14'-0	7.6	31'-0	17.6	48'-0	27.6
143"	92"	4'-10	7'-4	17'-8	14'-8	8.1	32'-4	18.7	50'-0	29.2
151"	97"	5'-0	7'-8½	18'-5	15'-5	8.7	33'-10	19.9	52'-3	31.0
166"	106"	5'-3	8'-5	19'-10	16'-10	9.7	36'-8	22.0	56'-6	34.4
180"	116"	5'-6	9'-1	21'-2	18'-2	10.8	39'-4	24.3	60'-6	37.8

CORRUGATED ALUMINUM ALLOY OR STEEL PIPE-ARCH

SPAN	RISE	H	R	S	SINGLE PIPE		DOUBLE PIPE		TRIPLE PIPE	
					G	CU.YDS.CONC., 2 ANCHORS	G	CU.YDS.CONC., 2 ANCHORS	G	CU.YDS.CONC., 2 ANCHORS
49"	33"	3'-0	2'-7	6'-3	5'-2	2.2	11'-5	4.9	17'-8	7.7
57"	38"	3'-1	2'-11	7'-3	5'-10	2.5	13'-1	5.7	20'-4	8.9
64"	43"	3'-3	3'-2½	8'-1	6'-5	2.8	14'-6	6.4	22'-7	10.1
71"	47"	3'-4	3'-6	9'-0	7'-0	3.0	16'-0	7.2	25'-0	11.3
77"	52"	3'-6	3'-9	9'-9	7'-6	3.3	17'-3	7.9	27'-0	12.5
83"	57"	3'-8	4'-0	10'-6	8'-0	3.5	18'-6	8.6	29'-0	13.6
60"	46"	3'-9	3'-1	7'-8	6'-2	2.9	13'-10	6.7	21'-6	10.5
66"	51"	3'-10	3'-4	8'-5	6'-8	3.1	15'-1	7.4	23'-6	11.6
73"	55"	4'-0	3'-7½	9'-4	7'-3	3.4	16'-7	8.3	25'-11	13.1
81"	59"	4'-2	3'-11½	10'-4	7'-11	3.7	18'-3	9.1	28'-7	14.5
87"	63"	4'-2	4'-2½	11'-1	8'-5	4.0	19'-6	9.8	30'-7	15.6
95"	67"	4'-4	4'-6½	12'-1	9'-1	4.3	21'-2	10.8	33'-3	17.2
103"	71"	4'-6	4'-10½	12'-9	9'-9	4.7	22'-6	11.6	35'-3	18.5
112"	75"	4'-8	5'-3	13'-6	10'-6	5.1	24'-0	12.5	37'-6	19.8
117"	79"	4'-9	5-5½	13'-11	10'-11	5.3	24'-10	12.9	38'-9	20.6
128"	83"	5'-0	5-11	14'-10	11'-10	5.8	26'-8	14.1	41'-6	22.4
137"	87"	5'-2	6'-3	15'-7	12'-7	6.1	28'-1	14.8	43'-8	23.5
142"	91"	5'-4	6'-6	16'-0	13'-0	6.5	29'-0	15.7	45'-0	24.9

GENERAL NOTES

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

LEGEND

H - Anchor height

R - Dimension from anchor edge to ℄ exterior pipe

S - Dimension between ℄ of adjacent pipes

G - Overall anchor length

INDIANA DEPARTMENT OF TRANSPORTATION

CONCRETE ANCHOR TABLES

JANUARY 1998

STANDARD DRAWING NO. **E 715-ANCH-02**

ANTHONY L. UREMOVICH REGISTERED No. 18095 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

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

ORIGINALLY APPROVED 1-02-98