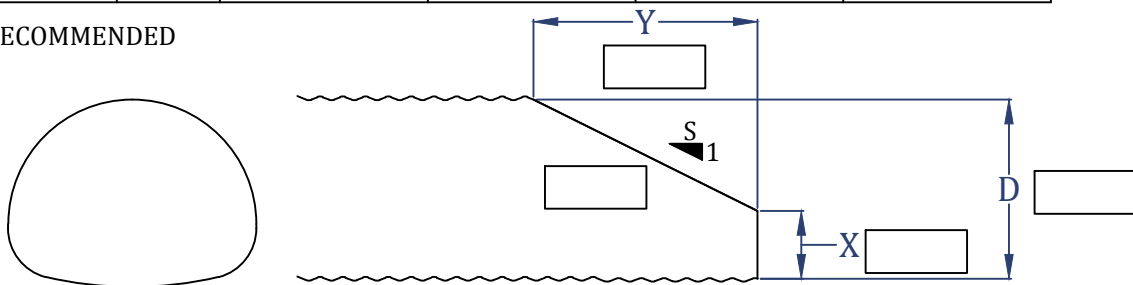


BOTTOM STEP BEVELS FOR ARCH PIPE

DIAMETER (IN)	X (IN)	ARCH SPAN X RISE (IN)	S = 1 1/2 TO 1	S = 2 TO 1	S = 3 TO 1
			Y (FEET)	Y (FEET)	Y (FEET)
2 2/3" x 1/2" CORRUGATIONS					
12*	---	---	---	---	---
15*	4	17 x 13	1.13	1.50	2.25
18*	5	21 x 15	1.25	1.67	2.50
21*	6	24 x 18	1.50	2.00	3.00
24*	6.5	28 x 20	1.69	2.25	3.38
30	8	35 x 24	2.00	2.67	4.00
36	10	42 x 29	2.38	3.17	4.75
42	11.5	49 x 33	2.69	3.58	5.38
48	13	57 x 38	3.13	4.17	6.25
54	14.5	64 x 43	3.56	4.75	7.13
60	16	71 x 47	3.88	5.17	7.75
66	18	77 x 52	4.25	5.67	8.50
72	19.5	83 x 57	4.69	6.25	9.38
3" x 1" OR 5" x 1" CORRUGATIONS					
36	10	40 x 31	2.63	3.50	5.25
42	11.5	46 x 36	3.06	4.08	6.13
48	15	53 x 41	3.25	4.33	6.50
54	20.5	60 x 46	3.19	4.25	6.38
60	23.0	66 x 51	3.50	4.67	7.00
66	25.0	73 x 55	3.75	5.00	7.50
72	24.0	81 x 59	4.38	5.83	8.75
78	26.0	87 x 63	4.63	6.17	9.25
84	28.0	95 x 67	4.88	6.50	9.75
90	30.0	103 x 71	5.12	6.83	10.25
96	31.5	112 x 75	5.44	7.25	10.88
102	33.5	117 x 79	5.69	7.58	11.38
108	35.5	128 x 83	5.98	7.92	11.88
114	38.5	137 x 87	6.06	8.08	12.13
120	39.5	142 x 91	6.44	8.58	12.88
126	41	150 x 96	6.88	9.17	13.75
132	43	157 x 101	7.25	9.67	14.50
138	45	164 x 105	7.50	10.00	15.00
144	47	171 x 110	7.88	10.50	15.75

* NOT RECOMMENDED



DESCRIPTION: CSP - BOTTOM STEP BEVEL FOR ARCH PIPE		PART NO: N/A	
DRAWN BY: C. HOMAN	DATE: APRIL 17, 12	SHEET NO: 4 OF 6	MATERIAL: N/A



CUSTOMER APPROVAL SIGNATURE _____ DATE _____

4	E2016-0001 REMOVE FULL BEVEL PAGES	1/6/2016	DRAWING IS NOT TO SCALE ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED ALL WELDS MUST BE REPAIRED AFTER FABRICATION (PER ASTM 760) PIPE LENGTHS HAVE A TOLERANCE OF ± 2" PIPE DIAMETERS HAVE A TOLERANCE OF THE GREATER OF ± 1/2" or 1% ALL ANGLES HAVE A TOLERANCE OF ± 3°	TOLERANCES	THIS DESIGN IS PROPERTY OF TRUENORTH STEEL DUPLICATION WITHOUT WRITTEN PERMISSIONS IS STRICTLY PROHIBITED
3	E2015-0336 ADD 2 1/2 TO 1 COL. TO ROUNDS	9/18/2015		XX ± 0.5"	
2	ECN-180 REVISED CHARTS	09-14-12		XXX ± 0.25"	
1	INITIAL RELEASE RFD-011	04-17-12		X.XXX ± 0.13"	
NO.	REVISION	DATE			