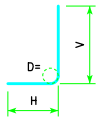
VARIABLE DIMENSIONS AND QUANTITIES FOR 8 x 4 BARREL SECTIONS

DIMENSIONS							BAR LIST																																							QUANTITIES				
							a1			b1			e1			e2			f1			f2			k1			k2						k9			m1			m2						m9		CONCRETE (CY/FT)				STEEL
FILL	S	H	A	B	C	D	SIZE	SP.	L	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	L	SIZE	SP.	L	H	V	SIZE	L	SIZE	SP.	L	SIZE	SP.	L	H	V	SIZE	L	SLAB	FLOOR	WALLS	TOTAL	(LB/FT)
0	8	4	12.5	11	9	9	4	9	5'-10	4	6	16	5	12	7	4	13	6	4	12	9	4	17	6	6	9	9'-2	5	12	6'-0	2'-9	3'-3	5	9'-2	6	9	9'-8	6	12	7'-9	3'-5	4'-4	6	9'-8	0.399	0.376	0.202	0.977	121.55
1	8	4	10.5	10.5	9	9	5	12	5'-8	4	6	16	5	12	7	4	14	6	4	12	9	4	14	6	6	9	9'-2	4	6	6'-0	3'-0	3'-0	4	9'-2	6	9	9'-8	4	6	7'-4	3'-0	4'-4	4	9'-8	0.340	0.361	0.202	0.903	120.08
2	8	4	8	10	9	6	4	6	5'-5	4	6	16	5	12	7	4	13	6	4	12	9	4	13	6	6	9	9'-2	5	9	5'-8	2'-10	2'-10	5	9'-2	5	6	9'-8	5	9	7'-0	2'-9	4'-3	5	9'-8	0.267	0.345	0.202	0.814	123.71
3	8	4	8	10	9	6	4	6	5'-5	4	6	16	4	12	7	4	11	6	4	12	9	4	11	6	6	9	9'-2	4	6	5'-3	2'-5	2'-10	4	9'-2	5	6	9'-8	4	6	6'-9	2'-6	4'-3	4	9'-8	0.267	0.345	0.202	0.814	116.37
4-7	8	4	8	10	9	9	4	9	5'-5	4	6	16	4	12	7	4	11	6	4	12	9	4	11	6	6	9	9'-2	4	6	5'-3	2'-5	2'-10	4	9'-2	5	6	9'-8	4	6	6'-8	2'-5	4'-3	4	9'-8	0.267	0.345	0.202	0.814	111.39
8-10	8	4	8	10	9	9	4	9	5'-5	4	6	16	4	12	7	4	10	6	4	12	9	4	10	6	6	9	9'-2	4	6	5'-2	2'-4	2'-10	4	9'-2	5	6	9'-8	4	6	6'-7	2'-4	4'-3	4	9'-8	0.267	0.345	0.202	0.814	110.95
11-15	8	4	8	10	9	6	4	6	5'-5	4	6	16	4	12	7	4	10	6	4	12	9	4	10	6	6	6	9'-2	5	9	5'-2	2'-4	2'-10	5	9'-2	6	6	9'-8	5	9	6'-7	2'-4	4'-3	5	9'-8	0.267	0.345	0.202	0.814	136.13
16-20	8	4	8.5	10.5	9	9	4	12	5'-6	4	6	16	4	12	7	4	10	6	4	12	9	4	10	6	6	6	9'-2	5	6	5'-1	2'-3	2'-10	5	9'-2	7	6	9'-8	5	6	6'-7	2'-3	4'-4	5	9'-8	0.282	0.361	0.202	0.845	154.92
21-25	8	4	10	12	9	9	4	12	5'-9	4	6	16	4	12	7	4	18	4	4	12	9	4	18	4	7	6	9'-2	5	6	5'-1	2'-1	3'-0	5	9'-2	7	6	9'-8	5	6	6'-6	2'-1	4'-5	5	9'-8	0.326	0.407	0.202	0.935	162.37
26-30	8	4	11	13.5	9	9	4	9	5'-11	4	6	16	4	12	7	4	18	4	4	12	9	4	17	4	7	6	9'-2	6	9	5'-6	2'-1	3'-5	6	9'-2	7	6	9'-8	6	9	6'-7	2'-0	4'-7	6	9'-8	0.355	0.453	0.202	1.010	167.24
31-35	8	4	12.5	14.5	9	6	4	6	6'-2	4	6	16	4	12	7	4	17	4	4	12	9	4	17	4	7	6	9'-2	6	12	5'-6	2'-0	3'-6	6	9'-2	7	6	9'-8	6	12	6'-8	2'-0	4'-8	6	9'-8	0.399	0.484	0.202	1.085	161.89
36-40	8	4	13.5	16	9	6	4	6	6'-4	4	6	16	4	12	7	4	17	4	4	12	9	4	18	4	9	9	9'-2	6	12	5'-8	2'-0	3'-8	6	9'-2	9	9	9'-8	6	12	6'-10	2'-1	4'-9	6	9'-8	0.428	0.530	0.202	1.160	174.76
41-45	8	4	14.5	16.5	9.5	9	4	12	6'-6	4	6	16	4	12	7	4	17	4	4	12	9	4	9	6	9	9	9'-3	6	9	5'-9	2'-1	3'-8	6	9'-3	8	6	9'-9	6	9	7'-0	2'-2	4'-10	6	9'-9	0.463	0.551	0.213	1.227	188.26
46-50	8	4	15.5	17.5	9.5	6	4	6	6'-8	4	6	16	4	12	7	4	10	6	4	12	9	4	9	6	8	6	9'-3	6	12	6'-1	2'-4	3'-9	6	9'-3	8	6	9'-9	6	12	7'-2	2'-3	4'-11	6	9'-9	0.492	0.582	0.213	1.287	194.21
51-55	8	4	16	18.5	10	6	4	6	6'-9	4	6	16	4	12	7	4	10	6	4	12	9	4	10	6	8	6	9'-4	6	12	6'-3	2'-5	3'-10	6	9'-4	8	6	9'-10	6	12	7'-4	2'-4	5'-0	6	9'-10	0.512	0.619	0.224	1.355	196.42

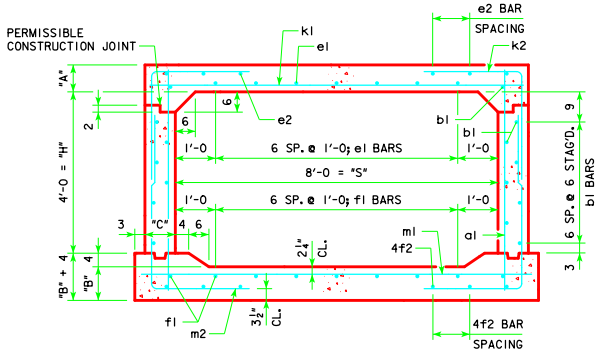
BENT BAR DETAIL

BARS	D
4	3
5	$3\frac{3}{4}$
6	$4\frac{1}{2}$



k2 & m2

NOTE:
ALL DIMENSIONS ARE OUT TO OUT.
D = PIN DIAMETER.



8 x 4 BARREL SECTION

NOTES:

1. DIMENSIONS LISTED ON THIS SHEET TO BE USED IN CONJUNCTION WITH SHEET RCB G2-12.
2. THE k2 AND m2 BARS HORIZONTAL LEGS MAY LAP IN LOW FILL SITUATIONS.
3. DIMENSIONS "A", "B", "C", "D", AND "SP." LISTED IN THE BAR LIST ARE IN INCHES.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN

SINGLE REINFORCED CONCRETE BOX CULVERTS

APRIL, 2012

CULVERT BARREL DETAILS

8 x 4 BARREL SECTIONS

RCB 8-4-12

ENGLISH_RCDSIGNEDSINGLECULVERTS.DGN - RCB 8-4-12 - THIS SHEET ISSUED 04-12.