

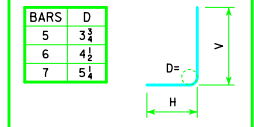
ENGLISH BEDSIGNEDTRIPLECULVERTS.DGN - TRRCB 12-11&12 - THIS SHEET ISSUED 04-12

VARIABLE DIMENSIONS AND QUANTITIES FOR TRIPLE 12 x 11 BARREL SECTIONS

DIMENSIONS																		BAR LIST																																							
FILL	S	H	A	B	C	D	E	R	T	U	W	X	Z	a1		a2		b1		b2		e1		e2		f1		f2		k1		k2		k3		k4		k6		k7																	
														SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	NO.	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L				
0	12	11	14	11.5	11	9	9	0'-2	0'-0	7'-9	2'-8	4'-3	4'-3	4	9	13'-0	7	9	13'-0	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	5	12	39'-4	5	12	13'-2	5	12	12'-7	6	9	11'-2	7'-6	3'-8	5	18	39'-4	7	18	15'-6
1	12	11	13.5	11.5	11	9	9	0'-7	0'-2	7'-9	2'-8	4'-3	4'-3	4	9	13'-0	7	9	13'-0	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	6	12	39'-4	5	12	13'-0	6	18	11'-9	6	9	11'-1	7'-6	3'-7	5	18	39'-4	7	18	15'-6
2	12	11	10	10	11	9	9	2'-6	1'-8	6'-7	3'-3	4'-6	4'-3	4	12	12'-7	7	9	12'-7	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	6	12	39'-4	5	12	10'-10	4	12	7'-11	7	9	10'-1	6'-2	3'-11	5	18	39'-4	8	18	14'-9
3-6	12	11	10	11	11	9	9	1'-11	1'-6	5'-5	3'-1	4'-6	4'-2	4	12	12'-8	7	9	12'-8	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	7	18	39'-4	7	18	11'-3	6	18	9'-1	7	9	9'-4	5'-5	3'-11	5	12	39'-4	6	12	11'-7
7-8	12	11	10	11.5	11	9	9	4'-1	2'-10	4'-0	2'-11	4'-4	3'-10	5	12	12'-8	7	9	12'-8	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	5	9	39'-4	4	9	8'-5	4	9	4'-9	5	6	7'-3	4'-3	3'-0	5	9	39'-4	5	9	8'-4
9-10	12	11	11	13	11	9	9	3'-10	2'-10	3'-11	2'-8	4'-1	3'-11	5	9	12'-11	7	9	12'-11	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	5	9	39'-4	4	9	8'-8	4	9	5'-3	6	9	7'-6	4'-1	3'-5	4	9	39'-4	6	9	8'-2
11-12	12	11	12	14	11	6	9	3'-10	2'-7	4'-0	2'-6	3'-10	3'-10	4	6	13'-1	7	9	13'-1	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	6	12	39'-4	5	12	9'-1	4	12	5'-3	5	6	7'-2	4'-0	3'-2	5	12	39'-4	7	12	8'-4
13-15	12	11	13.5	16	11	9	9	3'-9	2'-3	3'-11	2'-2	3'-10	3'-11	5	9	13'-4	7	9	13'-4	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	6	12	39'-4	5	12	10'-0	4	12	5'-5	5	6	7'-5	4'-1	3'-4	5	12	39'-4	7	12	8'-3
16-17	12	11	14.5	17	12	9	9	3'-8	2'-2	4'-0	2'-1	3'-8	4'-0	6	9	13'-6	7	9	13'-6	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	6	12	39'-8	5	12	10'-3	4	12	5'-8	5	6	7'-6	4'-1	3'-5	5	12	39'-8	7	12	8'-5
18-19	12	11	15.5	18	12.5	9	9	3'-4	1'-8	4'-0	1'-8	3'-7	4'-1	4	9	13'-8	7	9	13'-8	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	7	18	39'-10	7	18	11'-5	6	18	6'-4	7	9	8'-8	4'-4	4'-4	5	12	39'-10	7	12	8'-5
20-21	12	11	16.5	19	13	9	6	3'-3	1'-6	4'-1	1'-7	3'-5	4'-2	4	9	13'-10	6	6	13'-10	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	7	18	40'-0	7	18	11'-9	6	18	6'-7	7	9	8'-10	4'-5	4'-5	5	9	40'-0	6	9	8'-7
22-23	12	11	17.5	20	13.5	9	6	3'-3	1'-6	4'-2	1'-6	3'-6	4'-3	4	9	14'-0	6	6	14'-0	4	6	44	4	6	46	4	12	33	4	17	30	4	12	39	4	17	30	5	9	40'-2	5	9	11'-11	4	9	6'-8	7	9	9'-0	4'-6	4'-6	5	9	40'-2	6	9	8'-9
24-25	12	11	18.5	21.5	14	9	9	3'-3	1'-1	4'-3	1'-1	3'-5	4'-5	4	9	14'-3	8	9	14'-3	4	6	44	4	6	46	4	12	33	4	17	30	5	12	39	4	17	30	6	12	40'-4	6	12	12'-6	5	12	6'-8	7	9	9'-2	4'-7	4'-7	5	9	40'-4	6	9	8'-11

BAR LIST																		QUANTITIES																						
FILL	S	H	A	B	C	D	E	R	T	U	W	X	Z	k9		m1		m2		m3		m4		m6		m7		m9		CONCRETE (CY/FT)			STEEL							
														SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	H	V	SIZE	SP.	L	SIZE	SP.	L	SIZE	SP.	L	SLAB	FLOOR	WALLS	TOTAL
0	7	4.5	39'-4	5	12	39'-10	5	12	8'-11	4	12	4'-5	6	9	17'-9	6'-4	11'-5	4	9	39'-10	5	9	8'-7	5	4.5	39'-10	1.807	1.512	1.437	4.756	647.50									
1	7	4.5	39'-4	5	12	39'-10	5	12	8'-11	4	12	4'-5	6	9	17'-8	6'-3	11'-5	4	9	39'-10	5	9	8'-6	5	4.5	39'-10	1.745	1.512	1.437	4.694	644.79									
2	8	4.5	39'-4	6	12	39'-10	5	12	7'-7	4	12	3'-11	7	9	16'-3	5'-0	11'-3	5	12	39'-10	7	12	8'-7	7	4.5	39'-10	1.317	1.326	1.437	4.080	725.63									
3-6	6	4.5	39'-4	6	12	39'-10	5	12	8'-1	4	12	3'-11	7	9	16'-2	4'-10	11'-4	5	12	39'-10	7	12	8'-6	7	4.5	39'-10	1.317	1.450	1.437	4.204	722.34									
7-8	5	4.5	39'-4	6	12	39'-10	5	12	8'-7	4	12	4'-3	5	6	15'-7	4'-2	11'-5	5	9	39'-10	6	9	7'-10	6	4.5	39'-10	1.317	1.512	1.437	4.266	668.50									
9-10	6	4.5	39'-4	6	12	39'-10	5	12	9'-0	4	12	4'-9	6	9	15'-7	4'-1	11'-6	5	12	39'-10	7	12	8'-1	7	4.5	39'-10	1.439	1.698	1.437	4.574	663.74									
11-12	7	4.5	39'-4	5	9	39'-10	5	9	9'-8	4	9	5'-3	5	6	15'-8	4'-1	11'-7	5	12	39'-10	7	12	8'-0	7	4.5	39'-10	1.562	1.822	1.437	4.821	683.74									
13-15	7	4.5	39'-4	5	9	39'-10	5	9	10'-8	4	9	5'-3	5	6	15'-11	4'-2	11'-9	5	12	39'-10	7	12	8'-4	7	4.5	39'-10	1.745	2.070	1.437	5.252	695.13									
16-17	7	4.5	39'-10	5	9	40'-2	5	9	11'-0	4	9	5'-8	5	6	16'-0	4'-2	11'-10	5	12	40'-2	7	12	8'-5	7	4.5	40'-2	1.888	2.216	1.567	5.671	718.58									
18-19	7	4.5	39'-10	5	9	40'-4	5	9	11'-7	4	9	5'-10	7	9	16'-1	4'-2	11'-11	5	12	40'-4	7	12	8'-4	7	4.5	40'-4	2.023	2.352	1.632	6.007	743.84									
20-21	6	4.5	40'-0	5	9	40'-6	5	9	11'-10	4	9	6'-3	7	9	16'-3	4'-3	12'-0	5	12	40'-6	7	12	8'-10	7	4.5	40'-6	2.158	2.489	1.697	6.344	769.00									
22-23	6	4.5	40'-2	6	12	40'-8	6	12	12'-1	4	12	6'-2	7	9	16'-5	4'-4	12'-1	5	9	40'-8	6	9	9'-0	6	4.5	40'-8	2.294	2.628	1.763	6.685	789.58									
24-25	6	4.5	40'-4	6	12	40'-10	6	12	12'-6	4	12	6'-4	7	9	16'-8	4'-5	12'-3	5	12	40'-10	7	12	9'-4	7	4.5	40'-10	2.432	2.831	1.828	7.091	830.61									

BENT BAR DETAIL



k4 & m4

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

NOTES:

1. DIMENSIONS LISTED ON THIS SHEET TO BE USED IN CONJUNCTION WITH SHEET TRRCB G2-12.
2. DIMENSIONS "A", "B", "C", "D", "E", 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 TRIPLE REINFORCED CONCRETE BOX CULVERTS APRIL, 2012 CULVERT BARREL DETAILS 12 x 11 BARREL SECTIONS	TRRCB 12-11-12 SHEET 2 OF 2
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