VARIABLE DIMENSIONS AND QUANTITIES FOR BARREL SECTIONS

REINFORCING BAR LIST

FILL	a1			a2			b1			b2			e1			e2			e3			e4			f1			f2			f3			f4			k1			k2			k3			k4				k5			
	SIZE	SP	LENGTH	SIZE	SP	LENGTH	SIZE	SP	NO.	SIZE	SP	NO.	SIZE	SP	NO.	SIZE	SP	NO.	SIZE	SP	NO.	SIZE	SP	NO.	SIZE	SP	NO.	SIZE	SP	NO.	SIZE	SP	NO.	SIZE	SP	NO.	SIZE	SP	LENGTH	SIZE	SP	LENGTH	SIZE	SP	LENGTH	SIZE	SP	LENGTH	h	v	SIZE	SP	LENGTH	h	v
0	15	210	2920	15	105	2920	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	15	210	11 620	15	210	3310	15	210	3100	15	210	1360	540	820	15	210	1410	590	820
300	15	210	2960	15	140	2960	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	15	210	11 620	15	210	3230	15	210	2950	15	210	1430	610	820	15	210	1380	560	820
600	15	210	2870	15	105	2870	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	20	280	11 620	20	280	2770	15	280	2290	15	210	1480	660	820	15	210	1410	590	820
900-2100	15	210	2830	15	105	2830	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	15	280	11 620	20	280	2700	15	280	2270	15	280	1510	690	820	20	280	1430	610	820
2400-2700	15	210	2880	15	105	2880	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	15	280	11 620	20	280	2570	15	280	2040	15	280	1510	720	790	20	280	1380	590	790
3000-3300	15	210	2930	15	105	2930	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	15	210	11 620	15	210	2600	15	210	1660	15	280	1480	690	790	20	280	1380	590	790
3600-3900	15	140	2980	15	105	2980	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	15	210	11 620	15	210	2390	15	210	1280	15	280	1480	690	790	20	280	1350	560	790
4200-4500	15	140	3020	15	105	3020	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	20	280	11 620	20	280	2500	15	280	1220	15	280	1480	690	790	20	280	1350	560	790
4800-5100	15	140	3070	15	105	3070	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	25	350	11 620	25	350	2600	15	350	1220	15	280	1510	720	790	20	280	1330	540	790
5400-5700	15	210	3130	15	105	3130	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	25	350	11 620	25	350	2650	15	350	1220	15	210	1740	920	820	15	210	1380	560	820
6000-6600	15	140	3220	15	140	3220	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	25	350	11 620	25	350	2650	15	350	1220	15	210	2020	1200	820	15	210	1540	720	820
6900-7500	15	140	3300	15	105	3300	10	175	28	10	175	30	15	300	22	10	360	22	15	300	11	10	360	11	15	420	20	10	360	22	15	420	10	10	360	11	25	350	11 620	25	350	2750	15	350	1220	15	210	1970	1020	950	20	210	1760	820	940

REINFORCING BAR LIST

FILL	k6			k7			k9			m1			m2			m3			m4					m5					m6			m7			m9		
	SIZE	SP	LENGTH	SIZE	SP	LENGTH	SIZE	SP	LENGTH	SIZE	SP	LENGTH	SIZE	SP	LENGTH	SIZE	SP	LENGTH	SIZE	SP	LENGTH	h	v	SIZE	SP	LENGTH	h	v	SIZE	SP	LENGTH	SIZE	SP	LENGTH	SIZE	SP	LENGTH
0	15	210	11 620	15	210	1630	15	105	11 620	15	210	11 770	15	210	2140	15	210	1860	15	210	3360	560	2800	15	210	3360	560	2800	15	210	11 770	15	210	1400	15	105	11 770
300	15	280	9910	15	280	1660	15	105	11 620	15	210	11 770	15	210	2190	15	210	1860	15	210	3460	610	2850	15	210	3410	560	2850	15	210	9200	15	210	1430	15	105	11 770
600	20	280	9680	20	280	1710	20	105	11 620	15	210	11 770	15	210	2190	—	—	——	15	210	3420	670	2750	15	210	3310	560	2750	20	280	9280	25	280	1550	20	105	11 770
900-2100	15	210	9230	20	210	1630	20	105	11 620	15	210	11 770	15	210	2500	15	210	1930	15	280	3410	610	2800	20	280	3280	560	2720	20	280	9120	25	280	1610	20	105	11 770
2400-2700	20	280	9070	25	280	1680	20	105	11 620	15	210	11 770	15	210	2270	15	210	1350	15	280	3420	640	2780	20	280	3310	540	2770	20	280	9120	25	280	1630	20	105	11 770
3000-3300	20	280	9050	25	280	1660	20	105	11 620	20	280	11 770	20	280	2420	15	280	1350	15	280	3510	690	2820	20	280	3360	540	2820	20	280	9100	25	280	1630	20	105	11 770
3600-3900	20	210	9020	20	210	1680	20	105	11 620	20	280	11 770	20	280	2470	15	280	1220	15	280	3570	690	2880	20	280	3420	540	2880	20	210	9050	20	210	1400	20	105	11 770
4200-4500	20	210	8970	20	210	1450	20	105	11 620	25	350	11 770	25	350	2600	15	350	1220	15	280	3620	720	2900	20	280	3440	540	2900	20	210	9050	20	210	1400	20	105	11 770
4800-5100	20	210	8970	20	210	1430	20	105	11 620	25	350	11 770	25	350	2620	15	350	1220	15	280	3850	900	2950	20	280	3490	540	2950	25	350	9120	25	350	1730	25	175	11 770
5400-5700	25	350	9050	25	350	1760	25	175	11 620	25	350	11 770	25	350	2620	15	350	1220	15	210	3950	920	3030	15	210	3590	560	3030	25	350	9120	25	350	1760	25	175	11 770
6000-6600	25	350	9050	25	350	2060	25	175	11 620	25	350	11 770	25	350	2770	15	350	1430	15	210	4070	970	3100	15	210	3660	560	3100	25	350	9100	25	350	1780	25	175	11 770
6900-7500	20	210	9020	20	210	1630	20	105	11 620	15	210	11 770	20	210	2920	15	210	1550	15	210	4200	1020	3180	20	210	3820	640	3180	25	350	9120	25	350	1810	25	175	11 770

BENT BAR DETAILS

BARS	D
15	100
20	120
25	150

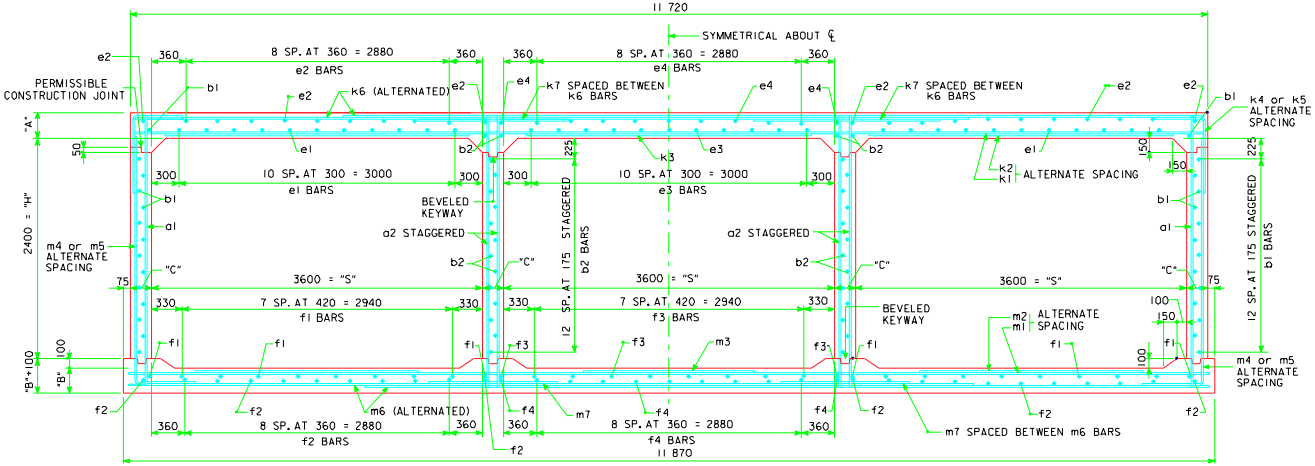
NOTE: ALL DIMENSIONS ARE OUT TO OUT D = PIN DIAMETER

DIMENSIONS

FILL	S	H	A	B	C	*D	*E	*F	*G	*J
0	3600	2400	280	270	230	210	105	105	280	280
300	3600	2400	295	295	230	210	105	105	280	280
600	3600	2400	245	255	230	210	105	105	280	280
900-2100	3600	2400	205	255	230	210	105	210	280	280
2400-2700	3600	2400	230	280	230	210	105	210	280	280
3000-3300	3600	2400	255	305	230	210	105	210	280	280
3600-3900	3600	2400	280	330	230	140	105	210	280	280
4200-4500	3600	2400	295	355	230	140	105	210	280	280
4800-5100	3600	2400	320	380	230	140	210	210	280	140
5400-5700	3600	2400	355	405	230	210	210	105	140	140
6000-6600	3600	2400	395	455	230	210	210	105	140	140
6900-7500	3600	2400	430	495	230	140	210	105	280	140

DIMENSIONS

FILL	*K	*L	R	T	U	V	W	X	Y	Z
0	105	105	370	390	900	3895	980	990	3970	720
300	105	140	440	450	900	2185	980	990	1400	750
600	105	105	770	680	930	1955	950	1920	1480	790
900-2100	105	105	780	670	870	1505	800	950	1320	850
2400-2700	105	105	900	800	900	1345	950	1240	1320	870
3000-3300	105	105	1090	800	900	1325	900	1240	1300	870
3600-3900	105	105	1280	930	950	1295	900	1310	1250	750
4200-4500	210	105	1310	870	800	1245	850	1310	1250	750
4800-5100	210	105	1310	850	800	1245	850	1310	1320	950
5400-5700	210	105	1310	820	980	1325	850	1310	1320	980
6000-6600	210	140	1310	850	1100	1325	780	1200	1300	1000
6900-7500	105	105	1310	800	900	1295	730	1140	1320	1000



BARREL SECTION

QUANTITIES

FILL	CONCRETE m3/m				STEEL
	SLAB	FLOOR	WALL	TOTAL	kg/m
0	3.486	3.397	2.092	8.974	987.5
300	3.661	3.694	2.092	9.447	915.2
600	3.075	3.219	2.092	8.386	994.5
900-2100	2.607	3.219	2.092	7.917	958.3
2400-2700	2.900	3.516	2.092	8.508	967.7
3000-3300	3.193	3.812	2.092	9.096	1006.5
3600-3900	3.486	4.109	2.092	9.686	1051.9
4200-4500	3.661	4.406	2.092	10.159	1114.0
4800-5100	3.954	4.703	2.092	10.748	1185.0
5400-5700	4.365	4.999	2.092	11.456	1206.2
6000-6600	4.833	5.593	2.092	12.518	1229.5
6900-7500	5.244	6.068	2.092	13.403	1249.3

* THESE DIMENSIONS ARE CORRECT FOR 11 480 mm LONG STANDARD SECTIONS ONLY. DIMENSIONS MUST BE RECALCULATED FOR ALL OTHER SECTION LENGTHS.

DIMENSIONS LISTED ON THIS SHEET TO BE USED IN CONJUNCTION WITH SHEET MTRRCB 2-94

LATEST REVISION DATE : 12-5-96

APPROVED BY : William A. Kruegel

STANDARD DESIGN

CULVERT BARREL DETAILS

FOR

TRIPLE REINFORCED CONCRETE BOX CULVERTS

PROJECT DEVELOPMENT DIVISION

IOWA DEPARTMENT OF TRANSPORTATION

DECEMBER, 1994

MTRRCB 3600-2400-94

REVISED : 12/96 ; KEYWAY NOTATION CHANGED.
TRB3624M.SOI

XXXXXXXXXSYSTEMTIME XXXXXXXUSERNAME XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXDGNSPEC