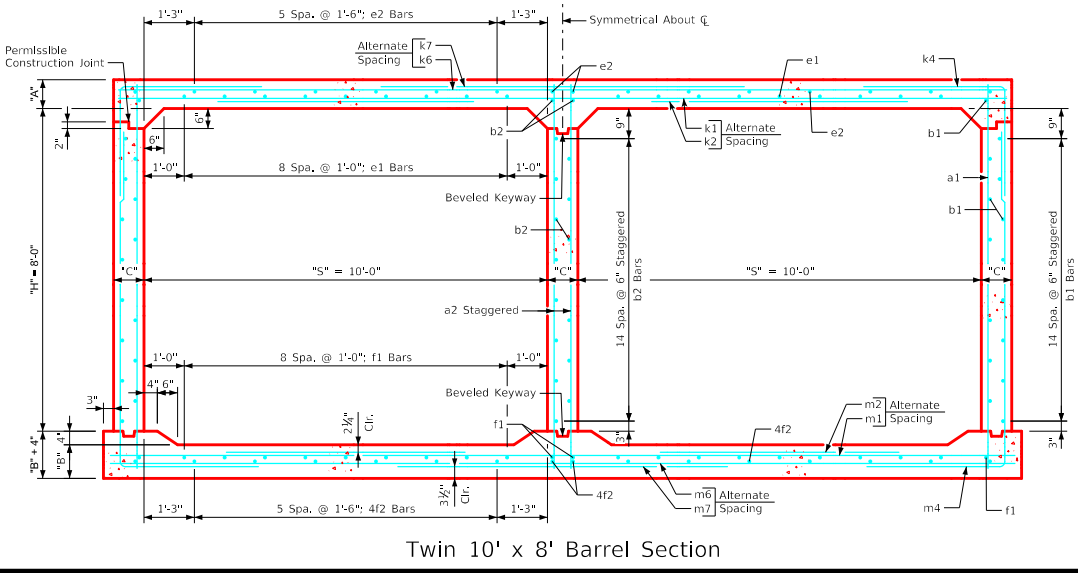
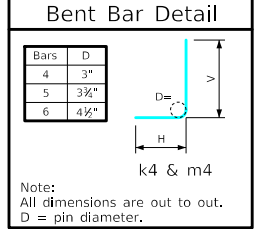


Variable Dimensions and Quantities for Twin 10' x 8' Barrel Sections

Dimensions														Bar List																																									
Fill	S	H	A	B	C	D	E	U	W	X	Z	a1		a2		b1		b2		e1		e2		f1		f2		k1		k2		k4		k6		k7		k9																	
												Size	Sp.	L	Size	Sp.	L	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.								
0	10	8	13	11.5	9	6	9	0'-1	6'-2	2'-1	6'-2	4	6	9'-11	6	9	9'-10	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	6	18	21'-11	5	18	10'-4	4	6	9'-3	6'-5	3'-1	4	12	21'-11	4	12	12'-4	4	4.5	21'-11
1	10	8	12.5	11	9	9	9	0'-7	6'-5	2'-1	6'-9	4	12	9'-10	6	9	9'-10	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	6	18	21'-11	5	18	10'-4	4	6	9'-3	6'-2	3'-1	5	18	21'-11	5	18	12'-10	5	4.5	21'-11
2	10	8	9	10	9	9	9	1'-10	6'-5	2'-11	4'-5	4	12	9'-6	6	9	9'-6	4	6	32	4	6	17	5	12	18	4	18	16	4	12	22	4	18	16	5	9	21'-11	4	9	8'-0	5	6	7'-5	4'-3	3'-2	5	12	21'-11	5	12	12'-10	5	4.5	21'-11
3	10	8	8	10	9	6	9	1'-10	4'-9	2'-2	4'-0	4	6	9'-5	6	9	9'-5	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	5	12	21'-11	5	12	8'-2	5	6	6'-9	3'-8	3'-1	4	12	21'-11	6	12	9'-6	6	4.5	21'-11
4	10	8	8	10	9	6	9	2'-1	4'-2	2'-2	3'-8	4	6	9'-5	6	9	9'-5	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	5	12	21'-11	5	12	7'-4	4	6	6'-3	3'-6	2'-9	4	12	21'-11	6	12	8'-4	6	4.5	21'-11
5-7	10	8	8	10	9	6	9	2'-3	3'-11	2'-2	3'-9	4	12	9'-5	6	9	9'-5	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	5	12	21'-11	5	12	7'-4	6	9	7'-0	3'-6	3'-6	5	12	21'-11	6	12	7'-10	6	4.5	21'-11
8-10	10	8	9	11.5	9	6	9	2'-2	3'-6	2'-1	3'-6	4	6	9'-7	6	9	9'-7	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	5	12	21'-11	5	12	7'-10	4	6	6'-0	3'-0	3'-0	5	9	21'-11	5	9	7'-0	5	4.5	21'-11
11-13	10	8	11	13.5	9	6	9	1'-11	3'-7	2'-1	3'-8	4	6	9'-11	6	9	9'-11	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	6	18	21'-11	6	18	8'-7	4	6	5'-10	2'-11	2'-11	4	9	21'-11	6	9	7'-2	6	4.5	21'-11
14-16	10	8	12.5	14.5	9	9	9	1'-7	3'-8	1'-11	3'-8	4	12	10'-2	6	9	10'-2	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	6	18	21'-11	6	18	9'-4	5	6	6'-4	2'-11	3'-5	5	12	21'-11	7	12	7'-4	7	4.5	21'-11
17-19	10	8	14	16	9	6	9	1'-6	3'-9	1'-6	3'-10	4	6	10'-5	6	9	10'-5	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	5	12	21'-11	5	12	9'-5	6	12	7'-0	3'-0	4'-0	5	12	21'-11	7	12	7'-6	7	4.5	21'-11
20-22	10	8	15	17	9	6	9	1'-4	3'-9	1'-11	3'-11	4	6	10'-7	6	9	10'-7	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	5	12	21'-11	5	12	9'-7	6	12	7'-1	3'-0	4'-1	5	12	21'-11	7	12	7'-6	7	4.5	21'-11
23-25	10	8	16	18.5	9.5	6	6	1'-7	3'-10	1'-8	4'-0	4	6	10'-9	5	6	10'-9	4	6	32	4	6	17	4	12	18	4	18	16	4	12	22	4	18	16	5	9	22'-0	4	9	9'-5	6	12	7'-2	3'-0	4'-2	5	9	22'-0	6	9	7'-8	6	4.5	22'-0

Fill	Bar List																		Quantities						
	m1		m2		m4		m6		m7		m9		Concrete (CY/FT)		Steel (LB/FT)										
Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	Slab	Floor	Walls	Total	Slab	Floor	Walls	Total
0	5	12	22'-5	5	12	8'-1	4	6	14'-10	6'-5	8'-5	4	9	22'-5	4	9	12'-4	4	4.5	22'-5	0.950	0.866	0.632	2.448	328.05
1	5	12	22'-5	5	12	8'-0	5	6	14'-6	6'-2	8'-4	5	18	22'-5	7	18	13'-6	7	4.5	22'-5	0.915	0.831	0.632	2.378	343.08
2	5	9	22'-5	4	9	6'-4	5	6	12'-4	4'-1	8'-3	4	9	22'-5	5	9	8'-10	5	4.5	22'-5	0.675	0.761	0.632	2.068	361.95
3	5	12	22'-5	5	12	7'-7	4	6	11'-10	3'-7	8'-2	4	12	22'-5	6	12	8'-0	6	4.5	22'-5	0.606	0.761	0.632	1.999	326.63
4	5	12	22'-5	5	12	7'-6	4	6	11'-8	3'-5	8'-3	4	9	22'-5	5	9	7'-4	5	4.5	22'-5	0.606	0.761	0.632	1.999	313.87
5-7	5	12	22'-5	5	12	7'-7	6	9	11'-8	3'-5	8'-3	4	12	22'-5	7	12	7'-6	7	4.5	22'-5	0.606	0.761	0.632	1.999	340.42
8-10	5	12	22'-5	5	12	8'-2	4	6	11'-5	3'-0	8'-5	5	9	22'-5	5	9	7'-0	5	4.5	22'-5	0.675	0.866	0.632	2.173	336.63
11-13	5	12	22'-5	5	12	8'-4	4	6	11'-7	3'-0	8'-7	5	9	22'-5	5	9	7'-4	5	4.5	22'-5	0.812	1.007	0.632	2.451	335.18
14-16	5	12	22'-5	5	12	9'-0	5	6	11'-8	3'-0	8'-8	5	12	22'-5	7	12	7'-4	7	4.5	22'-5	0.915	1.077	0.632	2.624	359.53
17-19	5	12	22'-5	5	12	9'-6	6	12	11'-10	3'-1	8'-9	5	12	22'-5	7	12	7'-8	7	4.5	22'-5	1.018	1.182	0.632	2.832	361.21
20-22	5	9	22'-5	4	9	9'-1	6	12	11'-11	3'-1	8'-10	5	9	22'-5	6	9	7'-10	6	4.5	22'-5	1.087	1.253	0.632	2.972	372.97
23-25	5	9	22'-6	4	9	9'-5	6	12	12'-1	3'-1	9'-0	5	9	22'-6	6	9	8'-0	6	4.5	22'-6	1.164	1.367	0.667	3.198	386.84



- Notes:**
- Dimensions listed on this sheet to be used in conjunction with Sheet TWRCB G3-20.
 - Fill, dimensions "S" and "H" are in feet.
 - Dimensions "A", "B", "C", "D", and "Sp." listed in the bar list are in inches.
 - Dimensions "L", "H", "V" are in feet and inches.

LATEST REVISION DATE	 Standard Design Twin Reinforced Concrete Box Culverts July, 2020	Culvert Barrel Details 10' x 8' Barrel Sections	TWRCB 10-8-20
APPROVED BY BRIDGE ENGINEER			

ENGLISHLRFDDESIGNEDTWINCULVERTS.DGN - TWRCB 10-8-20 - THIS SHEET ISSUED 07-2020.