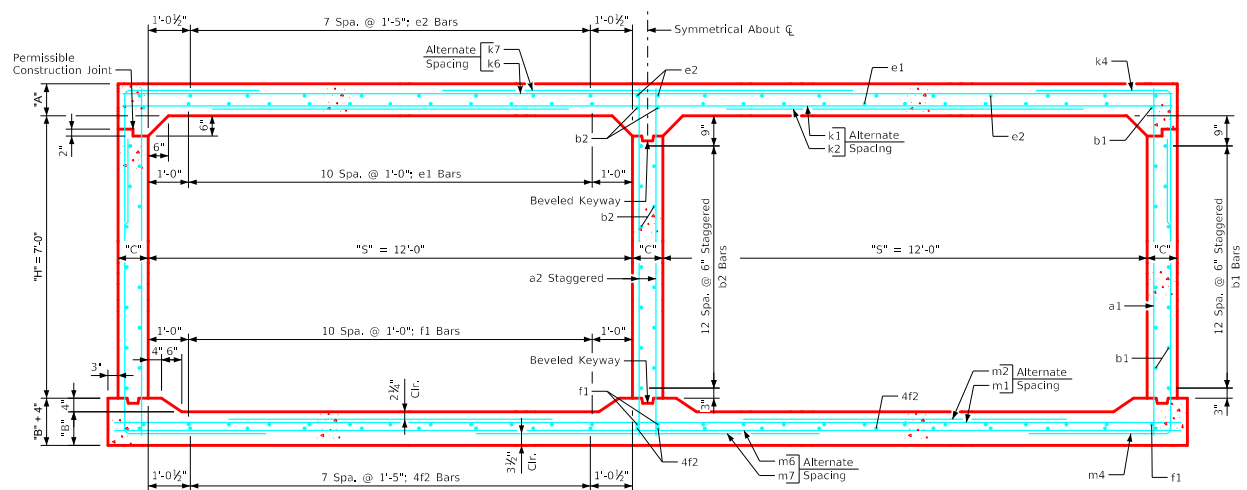
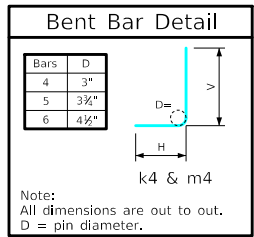


### Variable Dimensions and Quantities for Twin 12' x 7' Barrel Sections

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.	Size	Sp.	No.	Size	Sp.	No.	Size	Sp.	No.	Size	Sp.	No.	Size	Sp.	No.					
0	12	7	14	12	9	9	9	0'-1	7'-5	3'-1	6'-10	4	12	9'-1	6	9	9'-1	4	6	28	4	6	15	4	12	22	4	17	20	4	12	26	4	17	20	6	18	25'-11	6	18	12'-10	4	6	10'-5	7'-2	3'-3	4	12	25'-11	5	12	14'-10	5	4.5	25'-11
1	12	7	13.5	12	9	9	9	0'-8	7'-2	2'-6	6'-1	4	12	9'-0	6	9	9'-0	4	6	28	4	6	15	4	12	22	4	17	20	4	12	26	4	17	20	6	18	25'-11	6	18	12'-3	4	6	10'-7	7'-5	3'-2	4	9	25'-11	4	9	14'-4	4	4.5	25'-11
2	12	7	10	10	9	6	9	1'-11	6'-8	2'-9	4'-10	4	6	8'-7	6	9	8'-7	4	6	28	4	6	15	5	12	22	4	17	20	4	12	26	4	17	20	6	12	25'-11	5	12	10'-2	4	6	7'-4	3'-8	3'-8	5	12	25'-11	6	12	13'-4	6	4.5	25'-11
3	12	7	9.5	10	9	9	9	2'-8	5'-5	3'-5	4'-4	4	9	8'-6	6	9	8'-6	4	6	28	4	6	15	4	12	22	4	17	20	4	12	26	4	17	20	5	9	25'-11	4	9	9'-0	6	9	7'-4	3'-8	3'-8	5	12	25'-11	6	12	10'-10	6	4.5	25'-11
4	12	7	9	10	9	9	9	2'-10	4'-9	3'-5	4'-4	4	9	8'-6	6	9	8'-6	4	6	28	4	6	15	4	12	22	4	17	20	4	12	26	4	17	20	5	9	25'-11	4	9	8'-4	6	9	7'-2	3'-7	3'-7	5	9	25'-11	5	9	9'-6	5	4.5	25'-11
5-7	12	7	10	11	9	9	9	2'-3	4'-8	3'-3	4'-2	4	12	8'-8	6	9	8'-8	4	6	28	4	6	15	4	12	22	4	17	20	4	12	26	4	17	20	5	12	25'-11	5	12	9'-9	5	6	6'-6	3'-3	3'-3	5	12	25'-11	7	12	9'-4	7	4.5	25'-11
8-10	12	7	11	13	9	9	9	3'-0	4'-2	3'-4	4'-2	4	12	8'-11	6	9	8'-11	4	6	28	4	6	15	4	12	22	4	17	20	4	12	26	4	17	20	5	9	25'-11	4	9	8'-6	5	6	6'-2	2'-10	3'-4	5	9	25'-11	6	9	8'-4	6	4.5	25'-11
11-13	12	7	13	15	9	6	9	2'-10	4'-3	3'-1	4'-3	4	6	9'-3	6	9	9'-3	4	6	28	4	6	15	4	12	22	4	17	20	4	12	26	4	17	20	5	9	25'-11	4	9	9'-2	4	6	6'-4	3'-2	3'-2	4	9	25'-11	7	9	8'-6	7	4.5	25'-11
14-16	12	7	14.5	16.5	9	6	9	2'-4	4'-4	2'-6	4'-5	4	6	9'-6	6	9	9'-6	4	6	28	4	6	15	4	12	22	4	17	20	4	12	26	4	17	20	7	18	25'-11	6	18	10'-5	4	6	6'-0	2'-9	3'-3	5	12	25'-11	8	12	8'-8	8	4.5	25'-11
17-19	12	7	16.5	18.5	9	9	9	2'-3	4'-6	2'-2	4'-7	5	12	9'-10	6	9	9'-10	4	6	28	4	6	15	4	12	22	4	17	20	4	12	26	4	17	20	6	12	25'-11	5	12	10'-8	4	6	6'-3	2'-10	3'-5	5	12	25'-11	8	12	9'-0	8	4.5	25'-11
20-22	12	7	18	20	9	9	9	1'-8	4'-7	1'-7	4'-8	5	12	10'-1	6	9	10'-1	4	6	28	4	6	15	4	12	22	4	17	20	4	12	26	4	17	20	6	12	25'-11	5	12	11'-3	4	6	6'-5	2'-10	3'-7	5	9	25'-11	7	9	9'-2	7	4.5	25'-11
23-25	12	7	19.5	21.5	9	9	9	1'-7	4'-8	1'-9	4'-10	4	9	10'-4	6	9	10'-4	4	6	28	4	6	15	4	12	22	4	17	20	5	12	26	4	17	20	6	12	25'-11	5	12	11'-4	4	6	6'-7	2'-11	3'-8	5	9	25'-11	7	9	9'-4	7	4.5	25'-11

Fill	Bar List																											Quantities			
	m1			m2			m4			m6			m7			m9			Concrete (CY/FT)		Walls	Steel (LB/FT)									
Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	H	V	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	Slab	Floor	Total	Total					
0	5	9	26'-5	4	9	8'-1	5	6	14'-3	6'-10	7'-5	4	12	26'-5	6	12	13'-8	6	4.5	26'-5	1.191	1.050	0.549	2.750	379.53						
1	5	9	26'-5	5	12	9'-6	5	6	12'-10	5'-5	7'-5	5	12	26'-5	5	12	12'-2	5	4.5	26'-5	1.151	1.050	0.549	2.301	435.26						
2	5	9	26'-5	5	9	8'-5	6	9	11'-0	3'-9	7'-3	5	12	26'-5	7	12	9'-8	7	4.5	26'-5	0.867	0.885	0.549	2.301	435.26						
3	6	12	26'-5	5	12	7'-2	6	9	10'-9	3'-6	7'-3	4	9	26'-5	6	9	8'-8	6	4.5	26'-5	0.826	0.885	0.549	2.260	394.00						
4	6	12	26'-5	5	12	7'-2	6	9	10'-8	3'-5	7'-3	5	12	26'-5	7	12	8'-8	7	4.5	26'-5	0.786	0.885	0.549	2.220	402.08						
5-7	6	12	26'-5	5	12	7'-10	5	6	10'-7	3'-3	7'-4	5	9	26'-5	6	9	8'-4	6	4.5	26'-5	0.867	0.967	0.549	2.383	400.53						
8-10	6	12	26'-5	5	12	8'-4	5	6	10'-5	2'-11	7'-6	5	9	26'-5	6	9	8'-4	6	4.5	26'-5	0.948	1.132	0.549	2.629	408.71						
11-13	6	12	26'-5	5	12	8'-11	4	6	10'-6	2'-10	7'-8	4	9	26'-5	7	9	8'-6	7	4.5	26'-5	1.110	1.297	0.549	2.956	389.55						
14-16	6	12	26'-5	5	12	10'-3	4	6	10'-8	2'-10	7'-10	5	12	26'-5	8	12	8'-10	8	4.5	26'-5	1.232	1.421	0.549	3.202	411.76						
17-19	6	12	26'-5	5	12	10'-10	4	6	10'-10	2'-10	8'-0	5	12	26'-5	8	12	9'-2	8	4.5	26'-5	1.394	1.586	0.549	3.529	414.95						
20-22	7	18	26'-5	7	18	11'-5	4	6	11'-0	2'-11	8'-1	5	9	26'-5	7	9	9'-4	7	9	9'-4	7	9	9'-4	1.515	1.710	0.549	3.774	440.13			
23-25	6	12	26'-5	5	12	11'-3	4	6	11'-3	3'-0	8'-3	5	9	26'-5	7	9	9'-8	7	4.5	26'-5	1.637	1.834	0.549	4.020	444.18						



Twin 12' x 7' Barrel Section

- 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	APPROVED BY BRIDGE ENGINEER	Highway Division
		Standard Design <b>Twin Reinforced Concrete Box Culverts</b> July, 2020
		Culvert Barrel Details 12' x 7' Barrel Sections
		TWRCB 12-7-20

ENGLISHLRFDDESIGNEDTWINCULVERTS.DGN - TWRCB 12-7-20 - THIS SHEET ISSUED 07-2020.