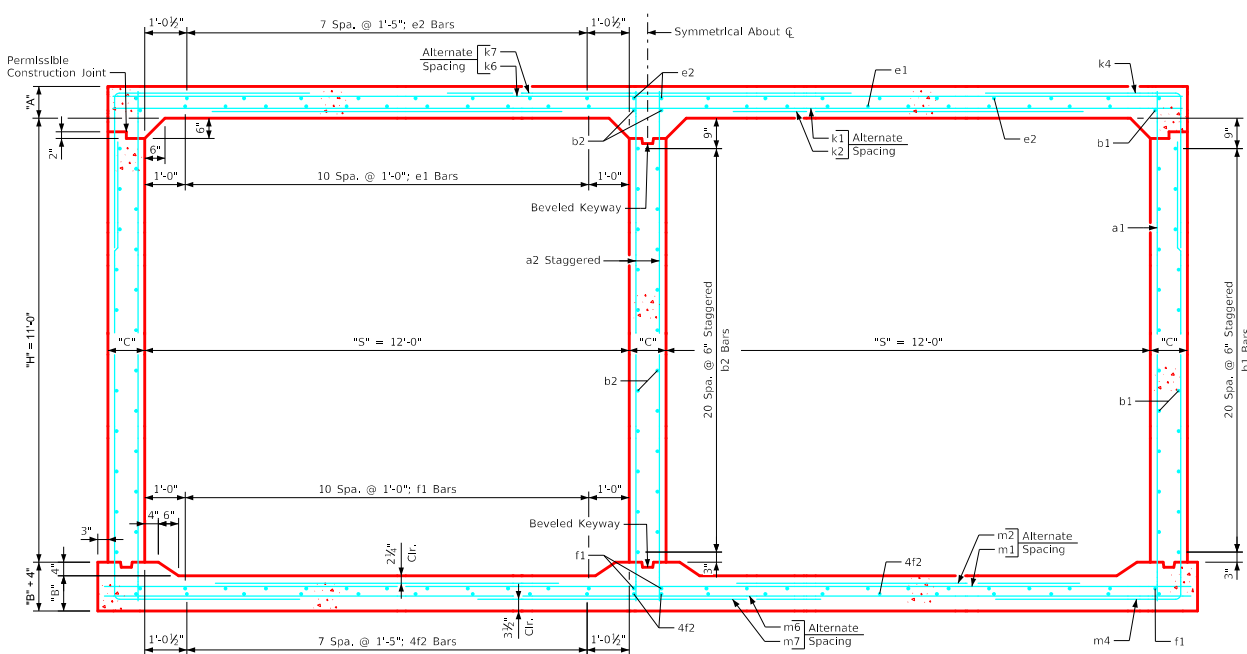


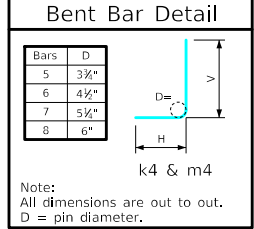
Variable Dimensions and Quantities for Twin 12' x 11' Barrel Sections

Dimensions													Bar List																																										
Fill	S	H	A	B	C	D	E	U	W	X	Z	a1			a2			b1			b2			e1			e2			f1			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.								
0	12	11	14	12.5	11	6	9	0'-3	7'-6	2'-5	6'-1	4	6	13'-1	7	9	13'-1	4	6	44	4	6	23	4	12	22	4	17	20	6	18	26'-5	6	18	12'-11	6	12	11'-8	7'-8	4'-0	4	12	26'-5	5	12	15'-0	5	4.5	26'-5						
1	12	11	13	12.5	11	9	9	0'-10	7'-3	2'-5	5'-11	4	12	13'-0	7	9	13'-0	4	6	44	4	6	23	4	12	22	4	17	20	4	12	26	4	17	20	6	18	26'-5	5	12	10'-6	7	9	9'-11	5'-11	4'-0	5	12	26'-5	6	12	14'-2	6	4.5	26'-5
2	12	11	10	10.5	11	9	9	1'-11	7'-1	2'-10	4'-8	4	12	12'-7	7	9	12'-7	4	6	44	4	6	23	5	12	22	4	17	20	4	12	26	4	17	20	6	12	26'-5	5	12	10'-6	7	9	9'-11	5'-11	4'-0	5	12	26'-5	6	12	10'-10	6	4.5	26'-5
3	12	11	9.5	10	11	9	9	2'-8	5'-5	3'-3	4'-5	4	12	12'-6	7	9	12'-6	4	6	44	4	6	23	4	12	22	4	17	20	4	12	26	4	17	20	5	9	26'-5	4	9	9'-1	7	9	9'-3	5'-3	4'-0	5	12	26'-5	6	12	10'-10	6	4.5	26'-5
4	12	11	9	10	11	9	9	2'-10	4'-10	3'-3	4'-2	5	12	12'-6	7	9	12'-6	4	6	44	4	6	23	4	12	22	4	17	20	4	12	26	4	17	20	5	9	26'-5	4	9	8'-5	6	9	8'-3	4'-8	3'-7	4	12	26'-5	7	12	9'-8	7	4.5	26'-5
5-7	12	11	9	11.5	11	9	9	3'-0	4'-5	3'-3	4'-3	4	9	12'-7	7	9	12'-7	4	6	44	4	6	23	4	12	22	4	17	20	4	12	26	4	17	20	5	9	26'-5	4	9	8'-1	5	6	7'-7	4'-5	3'-2	5	9	26'-5	6	9	8'-10	6	4.5	26'-5
8-10	12	11	11	13.5	11	6	9	3'-4	4'-2	3'-1	4'-2	4	6	12'-11	7	9	12'-11	4	6	44	4	6	23	4	12	22	4	17	20	4	12	26	4	17	20	5	9	26'-5	4	9	8'-1	6	9	8'-4	4'-2	4'-2	5	9	26'-5	6	9	8'-4	6	4.5	26'-5
11-13	12	11	12.5	15	11	6	9	2'-9	4'-3	2'-11	4'-3	4	6	13'-2	7	9	13'-2	4	6	44	4	6	23	4	12	22	4	17	20	4	12	26	4	17	20	5	9	26'-5	4	9	9'-2	5	6	7'-7	4'-1	3'-6	4	9	26'-5	7	9	8'-6	7	4.5	26'-5
14-16	12	11	14.5	16.5	11.5	9	9	2'-7	4'-4	2'-7	4'-5	6	9	13'-6	7	9	13'-6	4	6	44	4	6	23	4	12	22	4	17	20	4	12	26	4	17	20	5	9	26'-6	4	9	10'-1	6	9	8'-2	4'-1	4'-1	4	9	26'-6	7	9	8'-8	7	4.5	26'-6
17-19	12	11	16	18.5	12	9	9	2'-2	4'-5	2'-3	4'-7	6	9	13'-9	7	9	13'-9	4	6	44	4	6	23	4	12	22	4	17	20	4	12	26	4	17	20	6	12	26'-8	5	12	10'-8	6	9	8'-4	4'-2	4'-2	4	9	26'-8	7	9	8'-10	7	4.5	26'-8
19-22	12	11	18	20	13	9	6	2'-0	4'-7	1'-9	4'-9	4	9	14'-1	6	6	14'-1	4	6	44	4	6	23	4	12	22	4	17	20	4	12	26	4	17	20	6	12	26'-11	5	12	11'-5	8	12	9'-4	4'-3	5'-1	4	9	26'-11	7	9	9'-2	7	4.5	26'-11
23-25	12	11	19.5	22.5	14	9	9	1'-6	4'-8	1'-5	4'-11	6	9	14'-8	8	9	14'-5	4	6	44	4	6	23	4	12	22	4	17	20	5	12	26	4	17	20	6	12	27'-2	5	12	12'-1	5	6	8'-10	4'-5	4'-5	4	9	27'-2	7	9	9'-4	7	4.5	27'-2

Fill	Bar List																											Quantities															
	m1			m2			m4			m6			m7			m9			Concrete (CY/FT)		Slab	Floor	Walls	Total	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	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L	Size	Sp.	L
0	5	12	26'-11	5	12	9'-9	7	12	19'-0	7'-6	11'-6	4	12	26'-11	6	12	12'-2	6	4.5	26'-11	1.221	1.114	1.080	3.415	473.42																		
1	5	12	26'-11	5	12	9'-9	7	9	18'-10	7'-4	11'-6	5	12	26'-11	5	12	11'-10	5	4.5	26'-11	1.138	1.114	1.080	3.332	493.76																		
2	5	9	26'-11	5	9	8'-5	7	9	16'-3	4'-11	11'-4	4	9	26'-11	6	9	9'-4	6	4.5	26'-11	0.891	0.946	1.080	2.917	533.03																		
3	5	9	26'-11	5	9	7'-11	7	9	15'-11	4'-8	11'-3	5	12	26'-11	7	12	8'-10	7	4.5	26'-11	0.849	0.904	1.080	2.833	507.97																		
4	5	9	26'-11	5	9	7'-11	7	9	15'-9	4'-6	11'-3	5	9	26'-11	6	9	8'-4	6	4.5	26'-11	0.808	0.904	1.080	2.792	498.55																		
5-7	6	12	26'-11	5	12	7'-11	5	6	15'-10	4'-5	11'-5	5	9	26'-11	6	9	8'-6	6	4.5	26'-11	0.808	1.030	1.080	2.918	483.11																		
8-10	5	9	26'-11	4	9	8'-9	6	9	15'-10	4'-3	11'-7	5	9	26'-11	6	9	8'-4	6	4.5	26'-11	0.973	1.198	1.080	3.251	491.63																		
11-13	6	12	26'-11	5	12	9'-2	5	6	15'-10	4'-2	11'-8	4	9	26'-11	7	9	8'-6	7	4.5	26'-11	1.097	1.324	1.080	3.501	489.87																		
14-16	6	12	27'-0	5	12	10'-2	6	9	16'-0	4'-2	11'-10	4	9	27'-0	7	9	8'-10	7	4.5	27'-0	1.270	1.459	1.129	3.858	517.53																		
17-19	6	12	27'-2	5	12	10'-10	6	9	16'-2	4'-2	12'-0	5	12	27'-2	8	12	9'-2	8	4.5	27'-2	1.402	1.636	1.178	4.216	538.11																		
20-22	7	18	27'-5	7	18	11'-9	8	12	16'-4	4'-3	12'-1	5	9	27'-5	7	9	9'-6	7	4.5	27'-5	1.587	1.782	1.275	4.644	577.29																		
23-25	7	18	27'-8	7	18	12'-2	5	6	16'-10	4'-6	12'-4	4	9	27'-8	7	9	9'-10	7	4.5	27'-8	1.732	2.017	1.373	5.122	581.58																		



Twin 12' x 11' 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	 Standard Design Twin Reinforced Concrete Box Culverts July, 2020	Culvert Barrel Details 12' x 11' Barrel Sections	TWRCB 12-11-20	
	 APPROVED BY BRIDGE ENGINEER			

ENGLISHLRFDDESIGNEDTWINCULVERTS.DGN - TWRCB 12-11-20 - THIS SHEET ISSUED 07-2020.