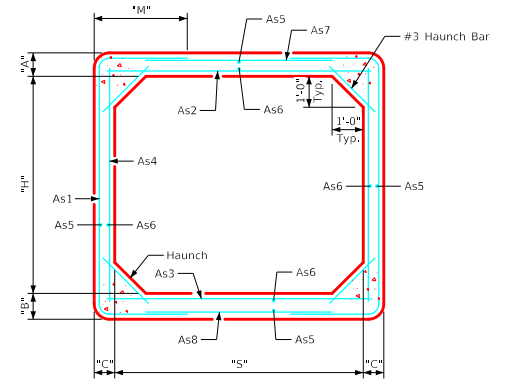
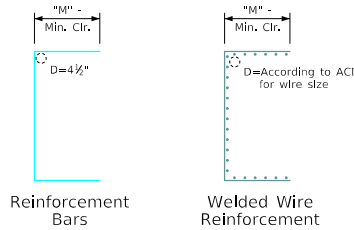


ENGLISHIGNEDPRECASTCULVERTS.DGN - PRCB 8-20 - THIS SHEET ISSUED 12-2020.

Variable Dimensions and Quantities for 8' Span Barrel Sections																				
Dimensions									Reinforcement Requirements										Weight (LB/FT)	
Size	Class	f'c (KSI)	Fill (FT)	S (FT)	H (FT)	A (IN)	B (IN)	C (IN)	As1		As2		As3		As4		As7/As8			
									Area (IN ² /FT)	Length	M	Area (IN ² /FT)	Length	Area (IN ² /FT)	Length	Area (IN ² /FT)	Length	Area (IN ² /FT)	Length	
8'x4'	1	5.0	2-9	8	4	9	10	8	0.44	8'-11"	2'-0"	0.38	8'-6"	0.41	8'-6"	0.20	4'-6"	0.24	7'-4"	3320
	2	5.0	10-19	8	4	9	10	8	0.65	9'-5"	2'-3"	0.60	8'-6"	0.62	8'-6"	0.27	4'-6"	0.24	7'-4"	3320
	3	5.0	20-25	8	4	9	10	8	0.86	9'-9"	2'-5"	0.77	8'-6"	0.80	8'-6"	0.35	4'-6"	0.24	7'-4"	3320
8'x5'	1	5.0	2-9	8	5	9	10	8	0.41	9'-9"	1'-11"	0.44	8'-6"	0.44	8'-6"	0.20	5'-6"	0.24	7'-4"	3520
	2	5.0	10-19	8	5	9	10	8	0.54	10'-3"	2'-2"	0.69	8'-6"	0.71	8'-6"	0.20	5'-6"	0.24	7'-4"	3520
	3	5.0	20-25	8	5	9	10	8	0.71	10'-7"	2'-4"	0.89	8'-6"	0.92	8'-6"	0.20	5'-6"	0.24	7'-4"	3520
8'x6'	1	5.0	2-9	8	6	9	10	8	0.38	10'-7"	1'-10"	0.53	8'-6"	0.53	8'-6"	0.20	6'-6"	0.24	7'-4"	3720
	2	5.0	10-19	8	6	9	10	8	0.48	11'-3"	2'-2"	0.77	8'-6"	0.80	8'-6"	0.20	6'-6"	0.24	7'-4"	3720
	3	5.0	20-25	8	6	9	10	8	0.65	11'-5"	2'-3"	0.98	8'-6"	1.01	8'-6"	0.20	6'-6"	0.24	7'-4"	3720
8'x7'	1	5.0	2-10	8	7	9	10	8	0.35	11'-7"	1'-10"	0.57	8'-6"	0.57	8'-6"	0.20	7'-6"	0.24	7'-4"	3920
	2	5.0	11-19	8	7	9	10	8	0.47	12'-3"	2'-2"	0.83	8'-6"	0.87	8'-6"	0.20	7'-6"	0.24	7'-4"	3920
	3	5.0	20-25	8	7	9	10	8	0.60	12'-7"	2'-4"	1.05	8'-6"	1.10	8'-6"	0.20	7'-6"	0.24	7'-4"	3920
8'x8'	1	5.0	2-10	8	8	9	10	8	0.35	12'-11"	2'-0"	0.65	8'-6"	0.66	8'-6"	0.20	8'-6"	0.24	7'-4"	4120
	2	5.0	11-19	8	8	9	10	8	0.44	13'-7"	2'-4"	0.90	8'-6"	0.93	8'-6"	0.20	8'-6"	0.24	7'-4"	4120
	3	5.0	20-25	8	8	9	10	8	0.57	13'-11"	2'-6"	1.13	8'-6"	1.17	8'-6"	0.20	8'-6"	0.24	7'-4"	4120
8'x9'	1	5.0	2-11	8	9	9	10	8	0.36	14'-5"	2'-3"	0.74	8'-6"	0.75	8'-6"	0.20	9'-6"	0.24	7'-4"	4320
	2	5.0	12-19	8	9	9	10	8	0.46	15'-3"	2'-8"	0.96	8'-6"	1.01	8'-6"	0.23	9'-6"	0.24	7'-4"	4320
	3	5.0	20-25	8	9	9	10	8	0.57	15'-7"	2'-10"	1.19	8'-6"	1.25	8'-6"	0.26	9'-6"	0.24	7'-4"	4320
8'x10'	1	5.0	2-11	8	10	9	10	8	0.41	16'-7"	2'-10"	0.83	8'-6"	0.84	8'-6"	0.26	10'-6"	0.24	7'-4"	4520
	2	5.0	12-20	8	10	9	10	8	0.48	17'-3"	3'-2"	1.05	8'-6"	1.11	8'-6"	0.30	10'-6"	0.24	7'-4"	4520
	3	5.0	21-25	8	10	9	10	8	0.60	17'-5"	3'-3"	1.23	8'-6"	1.29	8'-6"	0.35	10'-6"	0.24	7'-4"	4520



Typical Barrel Section



Bent Bar Details

All dimensions are out to out.
 D = pin diameter (min.).
 Pin diameter may be increased if needed to maintain clear cover.

Notes:

1. Longitudinal reinforcement denoted as As5 and As6 must be placed in slab, floor, and walls and must be 0.06 in²/ft minimum.
2. All reinforcement lengths and areas are minimum requirements.
3. If reinforcing bars are substituted for welded wire reinforcing, dimension "M" and/or length of the As7/As8 reinforcement shall be adjusted to ensure adequate lap length is provided.
4. Weight of sections assumes a density of 150 PCF and squared corners.
5. See PRCB G1-20 and G2-20 for additional information and notes.

LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER		
		Standard Design Single Precast Reinforced Concrete Box Culverts December, 2020	
		Culvert Barrel Details 8'-0" Span Barrel Sections	PRCB 8-20