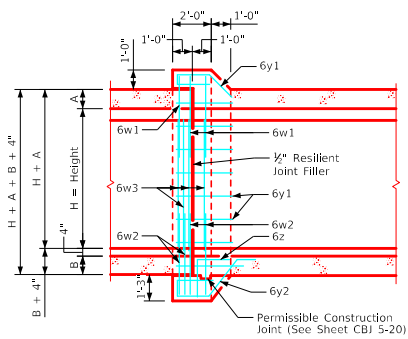
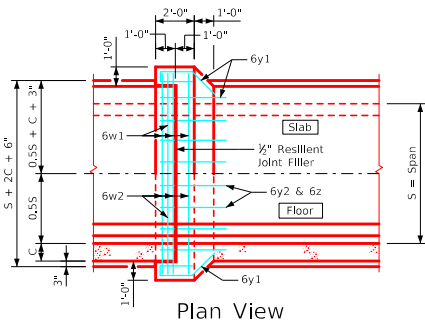


Joint Detail Section thru Barrel



Longitudinal Section

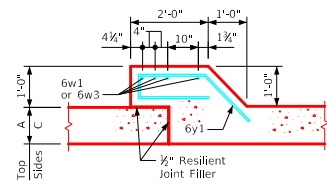


Plan View

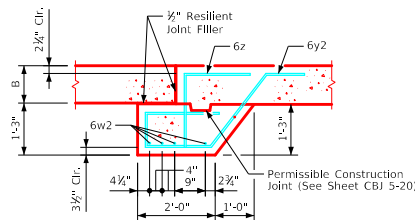
Estimate of Quantities - One Joint - 6' Span														
Bill of Reinforcing Steel														
Bar	Location	Shape	No.	Length	Weight	No.	Length	Weight	No.	Length	Weight	No.	Length	Weight
6w1	Slab & Walls	[Diagram]	4	18'-2"	109	4	18'-2"	109	4	18'-2"	109	4	18'-2"	109
6w2	Floor & Walls	[Diagram]	4	18'-4"	110	4	20'-4"	122	4	22'-4"	134	4	18'-6"	111
6w3	Walls	[Diagram]	--	--	--	--	--	--	--	--	--	8	5'-6"	66
6y1	Top & Sides	[Diagram]	18	6'-2"	167	20	6'-2"	185	22	6'-2"	204	24	6'-2"	222
6y2	Bottom	[Diagram]	8	7'-5"	89	8	7'-5"	89	8	7'-5"	89	8	7'-5"	89
6z	Bottom & Floor	[Diagram]	8	3'-2"	38	8	3'-2"	38	8	3'-2"	38	8	3'-2"	38
Total Weight (LB)			513				543				574			
Total Concrete (CY)			2.8				3.0				3.2			

Estimate of Quantities - One Joint - 8' Span														
Bill of Reinforcing Steel														
Bar	Location	Shape	No.	Length	Weight	No.	Length	Weight	No.	Length	Weight	No.	Length	Weight
6w1	Slab & Walls	[Diagram]	4	20'-2"	121	4	20'-2"	121	4	20'-2"	121	4	20'-3"	122
6w2	Floor & Walls	[Diagram]	4	22'-4"	134	4	24'-4"	146	4	20'-6"	123	4	20'-7"	124
6w3	Walls	[Diagram]	--	--	--	--	--	--	8	5'-6"	66	8	6'-6"	78
6y1	Top & Sides	[Diagram]	22	6'-2"	204	24	6'-2"	222	26	6'-2"	241	28	6'-2"	259
6y2	Bottom	[Diagram]	10	7'-8"	115	10	7'-8"	115	10	7'-8"	115	10	7'-8"	115
6z	Bottom & Floor	[Diagram]	10	3'-2"	48	10	3'-2"	48	10	3'-2"	48	10	3'-2"	48
Total Weight (LB)			622				652				714			
Total Concrete (CY)			3.5				3.7				4.0			

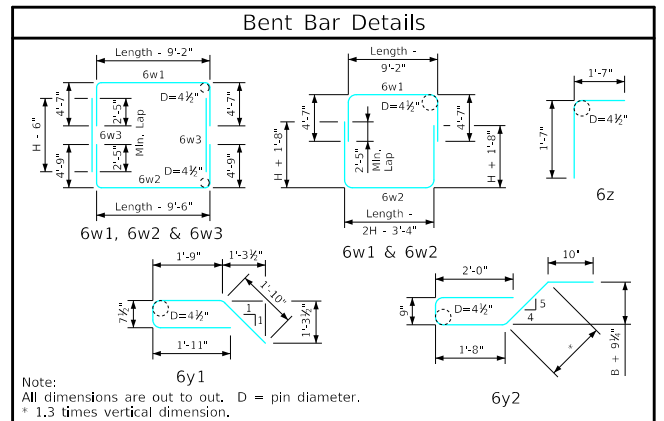
Barrel Size	Barrel Dimension			Bell Joint Quantities (CY)		
	A	B	C	Footing	Walls	Slab
6' x 3'	8	10	9	1.285	0.486	1.038
6' x 4'	8	10	9	1.285	0.668	1.038
6' x 5'	8	10	9	1.285	0.850	1.038
6' x 6'	8	10	9	1.285	1.032	1.038
6' x 7'	8	10.5	9	1.292	1.214	1.038
6' x 8'	8	10.5	9.5	1.302	1.396	1.045
8' x 4'	10	12.5	9	1.551	0.668	1.250
8' x 5'	10	12.5	9	1.551	0.850	1.250
8' x 6'	10	12.5	9	1.551	1.032	1.250
8' x 7'	10	12.5	9	1.551	1.214	1.250
8' x 8'	10	12.5	9.5	1.561	1.396	1.258
8' x 9'	10	12.5	11	1.589	1.578	1.280
8' x 10'	10	12.5	12	1.608	1.760	1.296



Top & Sides - Bars 6y1



Bottom - Bars 6y2 & 6z



Notes:

- Dimensions and quantities shown are based on slab, floor, and wall thicknesses (A, B, and C, respectively). Values for these dimensions, under varying fill conditions, can be found on the RCB culvert barrel detail sheets.
- Change lengths of bars 6w1, 6w2, 6z, and adjust reinforcing steel and concrete quantities accordingly for slab, wall, and floor thicknesses other than shown.
- All bar lengths are estimated with a 2" clearance from concrete edge to outside of bar, except as noted.
- Material and construction to be in accordance with the current Standard Specifications of I.D.O.T.
- See Sheet RCB G2-20 for General Notes, Specifications, and Design Stresses.
- Barrel floor bars m1 & m9 are to be shortened 6" in length at bell joints.
- Dimensions "A", "B" and "C" are in inches. "Length" dimensions in bar lists are in feet and inches.

LATEST REVISION DATE APPROVED BY BRIDGE ENGINEER	 Standard Design Single Reinforced Concrete Box Culverts July, 2020	
	Culvert Bell Joints 6' & 8' Spans	CBJ 2-20