



DESIGN NO.	WATERWAY DIMENSIONS			BARREL OF CULVERT DIMENSIONS			TWO WINGS AND ONE APRON DIMENSIONS			TWO CURBS DIMENSIONS			TOTAL QUANTS.							
	Clear Span	Clear Height	Area of Opening	REINFORCING STEEL BARS A, A1 & A2	BARS B, B1 & B2	BARS C	H	K	M	N	W	X	Y	Z	Steel Lbs.	Class "A" Concrete Cuydts.	ACh Length	Concrete Cuydts.	Concrete in one Curlear Wall Cuydts. per foot of depth	DESIGN NO.
1	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	1
2	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	2
3	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	3
4	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	4
5	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	5
6	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	6
7	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	7
8	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	8
9	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	9
10	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	10
11	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	11
12	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	12
13	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	13
14	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	14
15	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	15
16	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	16
17	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	17
18	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	18
19	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	19
20	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	20
21	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	21
22	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	22
23	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	23
24	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	24
25	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	25
26	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	26
27	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	27
28	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	28
29	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	29
30	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	30
31	8.0'	4.0'	32.0	2 #4 @ 12"	2 #4 @ 12"	2 #4 @ 12"	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	100	2.0	1.0	1.0	1.0	31

FED. ROAD DIST. NO.	STATE	PROJECT	YEAR	SHEET NO.
OKLA				

GENERAL NOTES

All reinforcing steel shall be deformed (channel bars). The design and fabric are based upon the area of bars as follows: #3 = 0.11 sq. in., #4 = 0.20 sq. in., #5 = 0.31 sq. in., #6 = 0.42 sq. in., #7 = 0.54 sq. in., #8 = 0.71 sq. in., #9 = 0.96 sq. in., #10 = 1.27 sq. in., #11 = 1.57 sq. in., #12 = 1.99 sq. in.

Spacing shall be as provided unless otherwise noted.

Bars shall be placed in accordance with the section above floor.

All exposed surfaces to have a 1:2 mortar finish and this shall be included in the price bid per cu yd for concrete.

All exposed edges shall have 3/4" chamfer.

DESIGN DATA

Dead Load 1000 Lbs

Live Load None

OKLAHOMA STATE STANDARD CONCRETE BOX CULVERTS SKEWED 60° RT FWD. SPANS 2 TO 10 FT FOR FILLS 3FT TO 10 FT