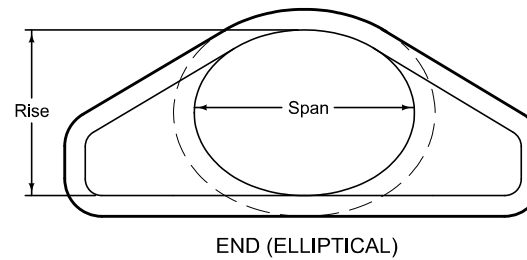
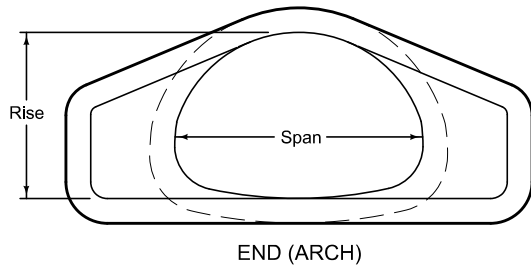


Dimension 'E' shown is the minimum and is considered the design length. Adjust for any difference between the actual length of concrete apron installed and the length indicated below for the length of concrete culvert pipe furnished.

① Tongue end used on inlet end section. Groove end used on outlet end section.



EQUIVALENT DIAMETER Inches	SLOPE	APPROXIMATE DIMENSIONS Inches				
		A	B	C	E	F
18	3:1	7	27	45	72	36
24	3:1	8 $\frac{1}{2}$	39	33	72	48
30	3:1	9 $\frac{1}{2}$	50	46	96	60
36	3:1	11 $\frac{3}{8}$	60	36	96	72
42	3:1	15 $\frac{3}{16}$	60	36	96	78
48	3:1	21	60	36	96	84
54	3:1	25 $\frac{1}{2}$	60	36	96	90
60	3:1	31	60	36	96	96
72	2:1	31	60	39	99	120
84	2:1	21 $\frac{3}{4}$	83	19	102	144

ARCH PIPE

EQUIVALENT DIAMETER Inches	SLOPE	APPROXIMATE DIMENSIONS Inches				
		A	B	C	E	F
18	3:1	7 $\frac{1}{2}$	27	45	72	36
24	3:1	8 $\frac{3}{4}$	39	33	72	48
30	3:1	9 $\frac{1}{2}$	54	18	72	60
36	2.5 to 1	11 $\frac{1}{8}$	60	24	84	72
42	2.5 to 1	15 $\frac{3}{4}$	60	36	96	78
48	2.5 to 1	21	60	36	96	84
54	2.5 to 1	25 $\frac{1}{2}$	60	36	96	90
60	2.5 to 1	30	60	36	96	96
72	2.5 to 1	36	63	33	96	108
90	1.6 to 1	36 $\frac{1}{2}$	58	38	96	113

ELLIPTICAL PIPE

REVISION	
New	10-18-16
4030.223	
SHEET 1 of 1	

SUDAS Standard Specifications

**ARCH AND ELLIPTICAL
CONCRETE PIPE APRONS**