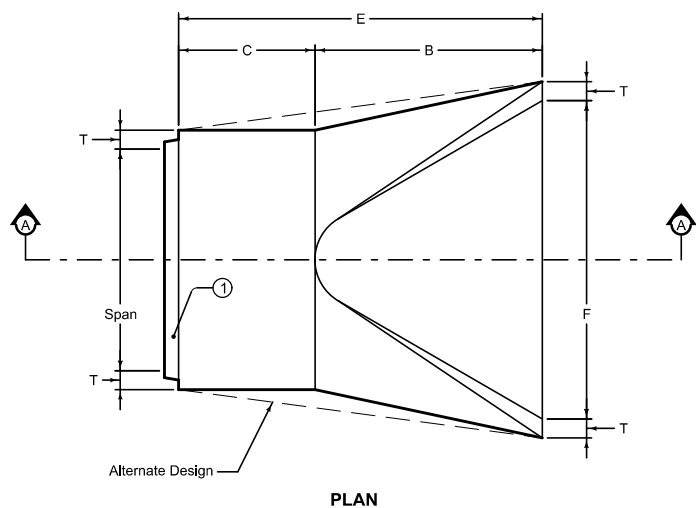


Comply Apron Reinforcement with AASHTO M 206.

Dimension "E" shown is minimum and is considered the design length. Appropriately adjust for any difference between the actual length of concrete apron installed and the length indicated hereon for the length of concrete culvert pipe furnished.

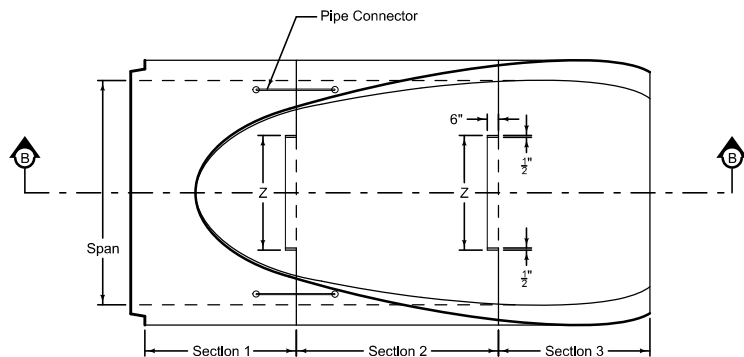
- ① Tongue end on inlet end section, Groove end on outlet end section. (Inlet end section shown.)

NOMINAL DIMENSIONS SPAN X RISE Inches	EQUIVALENT DIAMETER Inches	WEIGHT PER SECTION Lbs.	SPAN Inches	RISE Inches	SLOPE	APPROXIMATE DIMENSIONS Inches					
						(T)	(A)	(B)	(C)	(E)	(F)
22 X 14	18	1090	22	13 $\frac{1}{2}$	3:1	2 $\frac{1}{2}$	7	27	45	72	36
29 X 18	24	1760	28 $\frac{1}{2}$	18	3:1	3	8 $\frac{1}{2}$	39	33	72	48
37 X 23	30	3280	36 $\frac{1}{4}$	22 $\frac{1}{2}$	3:1	3 $\frac{1}{2}$	9 $\frac{1}{2}$	50	46	96	60
44 X 27	36	4330	43 $\frac{3}{4}$	26 $\frac{5}{8}$	3:1	4	11 $\frac{1}{8}$	60	36	96	72
52 X 32	42	5260	51 $\frac{1}{8}$	31 $\frac{5}{16}$	3:1	4 $\frac{1}{2}$	15 $\frac{13}{16}$	60	36	96	78
59 X 36	48	6380	58 $\frac{1}{2}$	36	3:1	5	21	60	36	96	84
65 X 40	54	7860	65	40	3:1	5 $\frac{1}{2}$	25 $\frac{1}{2}$	60	36	96	90
73 X 45	60	9520	73	45	3:1	6	31	60	36	96	96
88 X 54	72	13550	88	54	2:1	7	31	60	39	99	120
102 X 62	84	17800	102	62	2:1	8	21 $\frac{1}{2}$	83	19	102	144

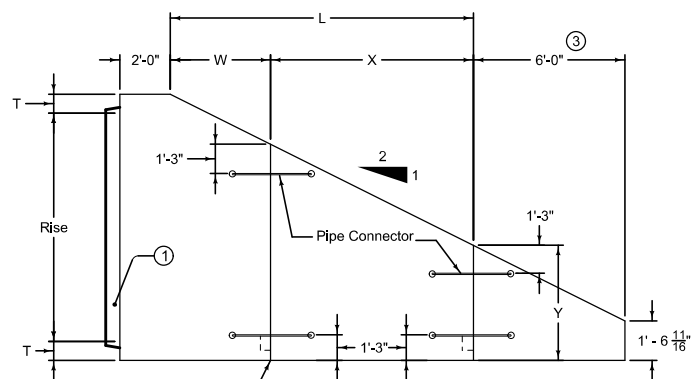
Possible Contract Item:
Concrete Arch Apron

Possible Tabulations:
104-3
104-4

 STANDARD ROAD PLAN	REVISION	
	5	10-18-11
	RF-42	
	SHEET 1 of 2	
REVISIONS: Removed circle note 2 and replaced with 2 foot dimension. Modified 102x62 'A' dimension. Changed RF-41 ref. to AASHTO M 206 and 'T' values.		
<i>Deanna Macfadyen</i> APPROVED BY DESIGN METHODS ENGINEER		
CONCRETE ARCH APRONS		

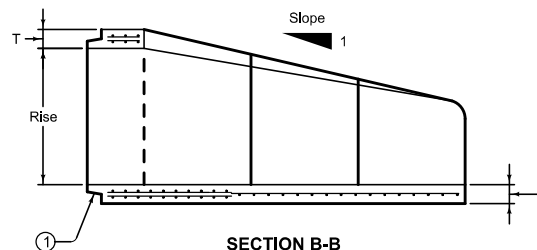


PLAN

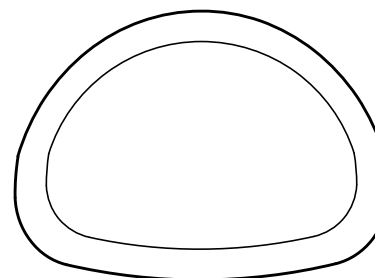


ELEVATION

See Detail 'A'

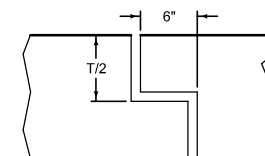


SECTION B-B



END

- ① Tongue end on inlet end section. Groove end on outlet end section. (Inlet end section shown.)
- ③ 132" size is a three-piece end section.



DETAIL 'A'

NOMINAL DIMENSIONS SPAN X RISE Inches	EQUIVALENT DIAMETER Inches	WEIGHT PER SECTION Lbs. (Approx.)			SPAN Inches	RISE Inches	APPROXIMATE DIMENSIONS Inches					
		Section 1	Section 2	Section 3			(T)	(L)	(W)	(X)	(Y)	(Z)
115 X 72	90	19100	3950		115 1/2	72	8 1/2	102 1/4	72	30 1/4	37 7/8	48
122 X 78	96	22000	6050		122 3/8	78	9	112 1/2	72	40 1/2	39	54
138 X 88	108	23000	15800		138 1/2	88	10	129 1/2	48	81 1/2	42 3/8	66
154 X 97	120	27000	24600		154	96 7/8	11	144	48	96	46 5/8	78
169 X 107	132 ③	27950	25260	13640	168 3/4	106 1/2	10	144	48	96	54 3/8	90

 Iowa Department of Transportation STANDARD ROAD PLAN	REVISION	
	5	10-18-11
	RF-42	
	SHEET 2 of 2	
REVISIONS: Removed circle note 2 and replaced with 2 foot dimension. Modified 102x82 'A' dimension. Changed RF-41 ref. to AASHTO M 208 and 'T' values. <i>Deanna Macfadyen</i> APPROVED BY DESIGN METHODS ENGINEER		
CONCRETE ARCH APRONS		