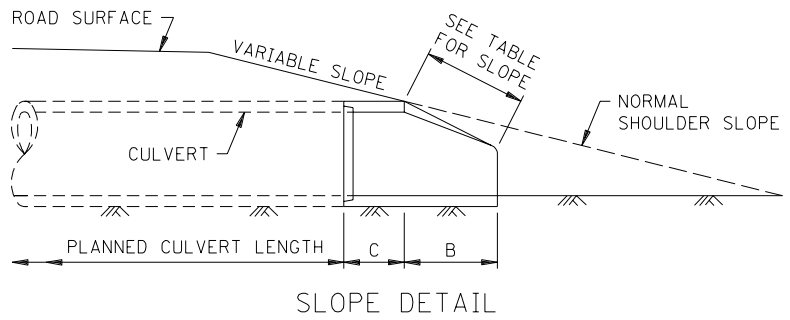
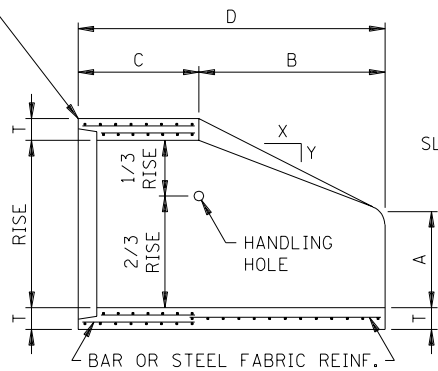


TOP VIEW



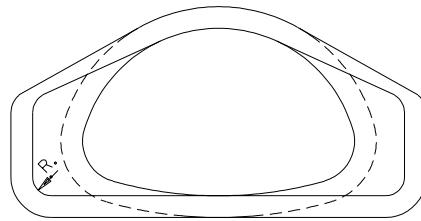
SLOPE DETAIL

GROOVE END ON OUTLET END SECTION
TONGUE END ON INLET END SECTION



LONGITUDINAL SECTION

SLOPE = Y TO X



END VIEW

SIZE ①	WEIGHT PER SECTION (APPROX.) (LBS.)	RISE	SPAN	APPROX. SLOPE Y TO X	T	A	B	C	D	E	R	②
18"	1100	13-1/2"	22"	1 TO 3	2-1/2"	7"	27"	45"	72"	36"	2"	0.15
24"	1750	18"	28-1/2"	1 TO 3	3-1/2"	8-1/2"	39"	33"	72"	48"	3"	0.18
30"	3300	22-1/2"	36-1/4"	1 TO 3	4"	9-1/2"	50"	46"	96"	60"	3"	0.22
36"	4350	26-5/8"	43-3/4"	1 TO 3	4-1/2"	11-1/8"	60"	36"	96"	72"	6"	0.21
42"	5250	31-5/16"	51-1/8"	1 TO 3	4-1/2"	15-13/16"	60"	36"	96"	78"	6"	0.26
48"	6400	36"	58-1/2"	1 TO 3	5"	21"	60"	36"	96"	84"	6"	0.24
54"	7850	40"	65"	1 TO 3	5-1/2"	25-1/2"	60"	36"	96"	90"	6"	0.24
60"	9500	45"	73"	1 TO 3	6"	31"	60"	36"	96"	96"	6"	0.24
72"	13550	54"	88"	1 TO 2	7"	31"	60"	39"	99"	120"	6"	0.23
84"	17950	62"	102"	1 TO 2	8"	28-1/2"	83"	19"	102"	144"	6"	0.23

NOTES:

REINFORCEMENT AND DESIGN OF END SECTION "C" SHALL CONFORM TO STANDARD REINFORCED CONCRETE PIPE-ARCH CLASS II-A.

ROUNDED EDGE PERMITTED ON SLOPED END "B".

① SIZE = DIAMETER OF ROUND PIPE WITH SAME PERIPHERY. SEE STANDARD PLATE NO. 3014 FOR PIPE-ARCH SHAPE DIMENSIONS AND APPLICABLE REQUIREMENTS.

② CONTINUOUS BASIC REINFORCEMENT IN SQ. IN. PER LINEAL FT. FOR SLOPED END "B". FOR WALL THICKNESSES LESS THAN 4", LOCATE REINFORCEMENT AT THE CENTER OF WALL. FOR WALL THICKNESSES 4" AND GREATER, LOCATE REINFORCEMENT WITH A MINIMUM OF 2" OF COVER MEASURED FROM THE OUTSIDE OF THE WALL.

APPROVED May 8, 1985

R.H. Sullivan
Assistant Division Director
Technical Services

STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION

CONCRETE APRON FOR
REINFORCED CONCRETE PIPE-ARCH

SPECIFICATION
REFERENCE
2501
2503

REVISED
10-16-2000 A.K.J.

STANDARD
PLATE
NO.

3110G