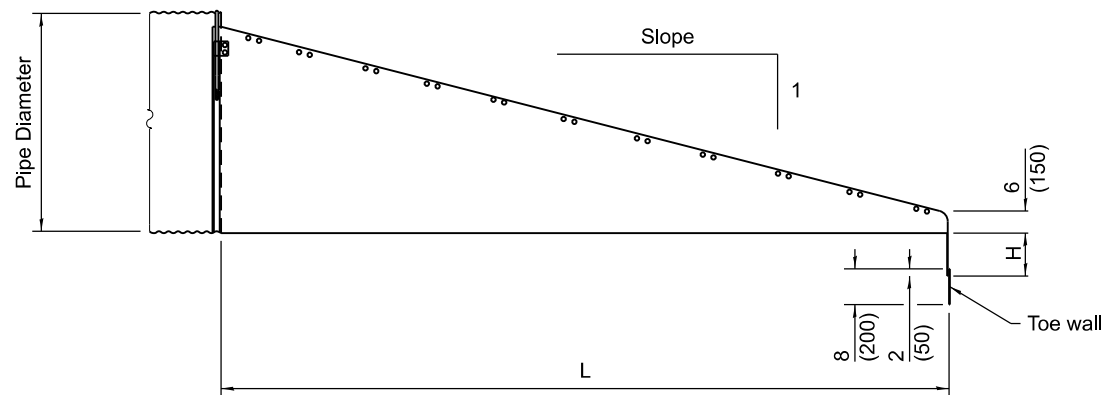
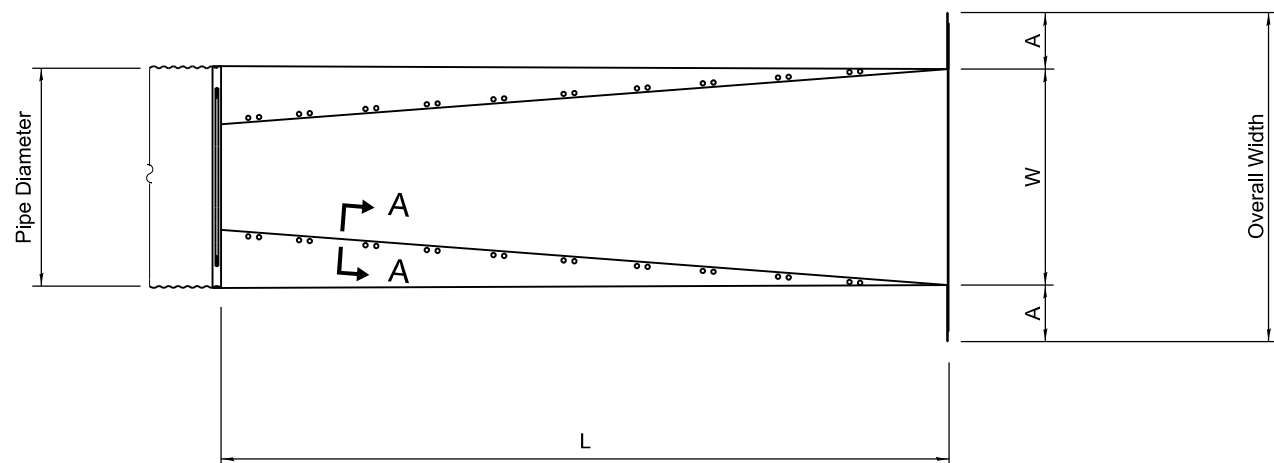
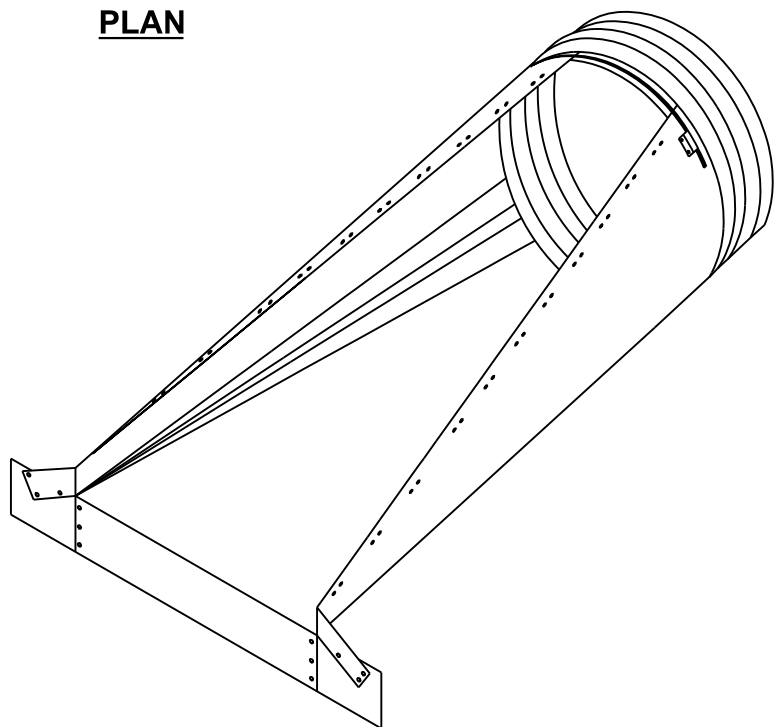




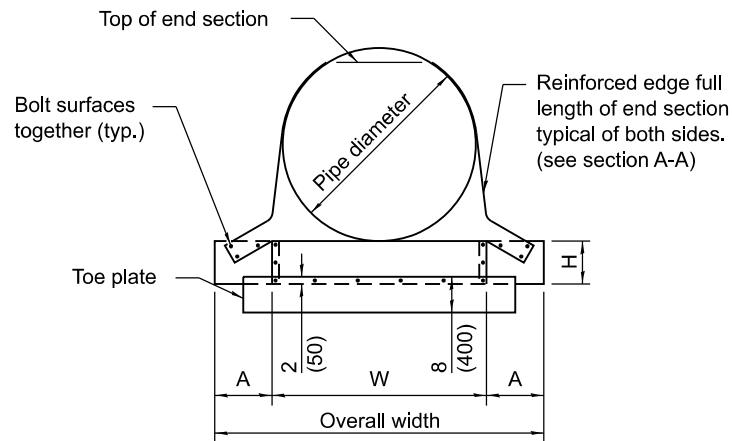
ELEVATION



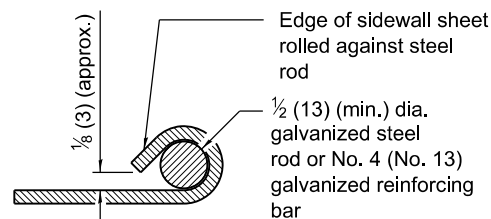
PLAN



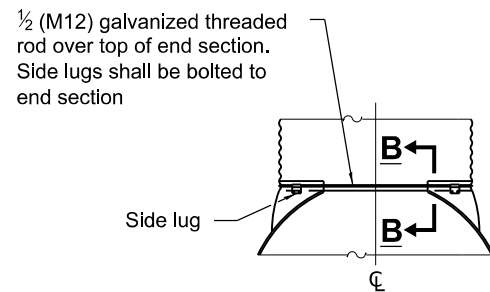
**END SECTION
PERSPECTIVE VIEW**



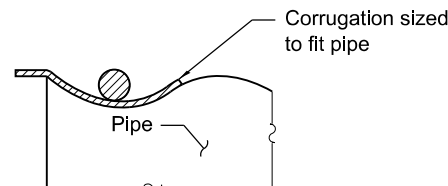
END VIEW



SECTION A-A



CONNECTIONS OF END SECTION



SECTION B-B

METAL END SECTIONS FOR ROUND PIPE CULVERT

PIPE DIA.	METAL THICK. (min.)	DIMENSIONS					
		A	H	W	OVERALL WIDTH	L	
						SLOPE 1:4	SLOPE 1:6
15	0.064	8	6	21	37	20	30
(375)	(1.63)	(200)	(150)	(525)	(950)	(500)	(750)
18	0.064	8	6	24	40	32	48
(450)	(1.63)	(200)	(150)	(600)	(1000)	(800)	(1200)
21	0.064	8	6	27	43	44	60
(525)	(1.63)	(200)	(150)	(700)	(1100)	(1100)	(1500)
24	0.064	8	6	30	46	55	83
(600)	(1.63)	(200)	(150)	(750)	(1150)	(1400)	(2100)
30	0.109	12	9	36	60	79	118
(750)	(2.77)	(300)	(230)	(900)	(1500)	(2000)	(3000)
36	0.109	12	9	42	66	102	154
(900)	(2.77)	(300)	(230)	(1050)	(1650)	(2600)	(3900)
42	0.109	16	12	48	80	126	189
(1050)	(2.77)	(400)	(300)	(1200)	(2000)	(3200)	(4800)
48	0.109	16	12	54	86	150	224
(1200)	(2.77)	(400)	(300)	(1350)	(2150)	(3800)	(5700)
54	0.109	16	12	60	92	173	260
(1350)	(2.77)	(400)	(300)	(1500)	(2300)	(4400)	(6600)
60	0.109	16	12	66	98	197	295
(1500)	(2.77)	(400)	(300)	(1650)	(2450)	(5000)	(7500)

GENERAL NOTES

See roadway plans for slope (V:H) and pipe diameter.

Provide traversable pipe grate when specified.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

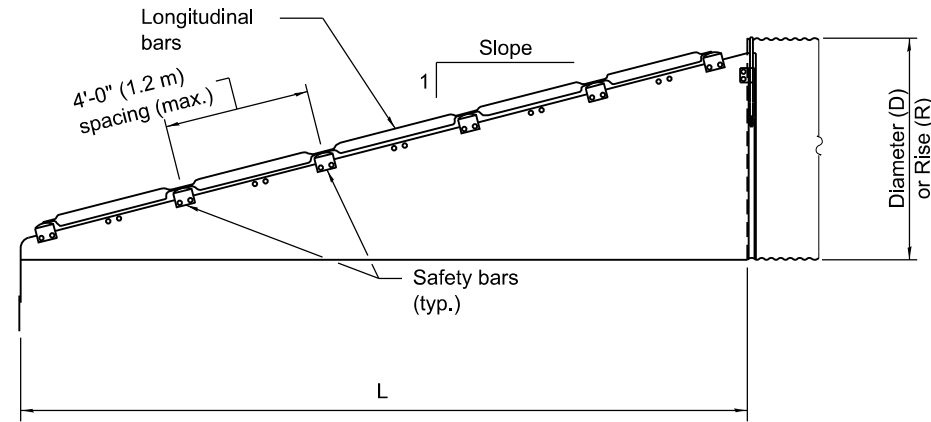
All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-18	New Standard.

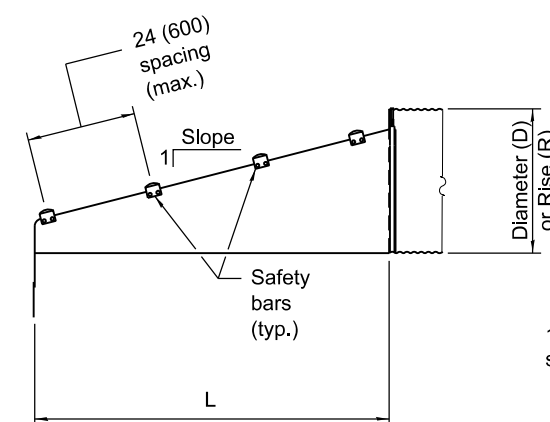
**SLOPED METAL END SECTIONS
FOR PIPE CULVERTS 15" (375 mm)
THRU 60" (1500 mm) DIA.**

(Sheet 1 of 2)

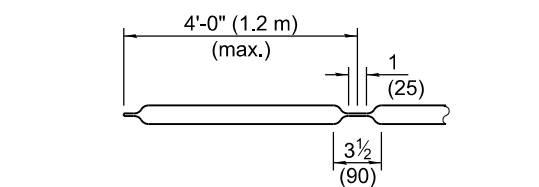
STANDARD 542411



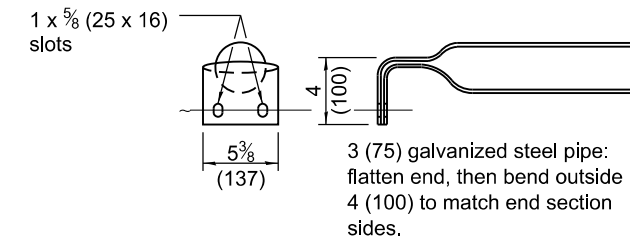
**CROSS DRAINAGE
END SECTION - ELEVATION**



**PARALLEL DRAINAGE
END SECTION - ELEVATION**

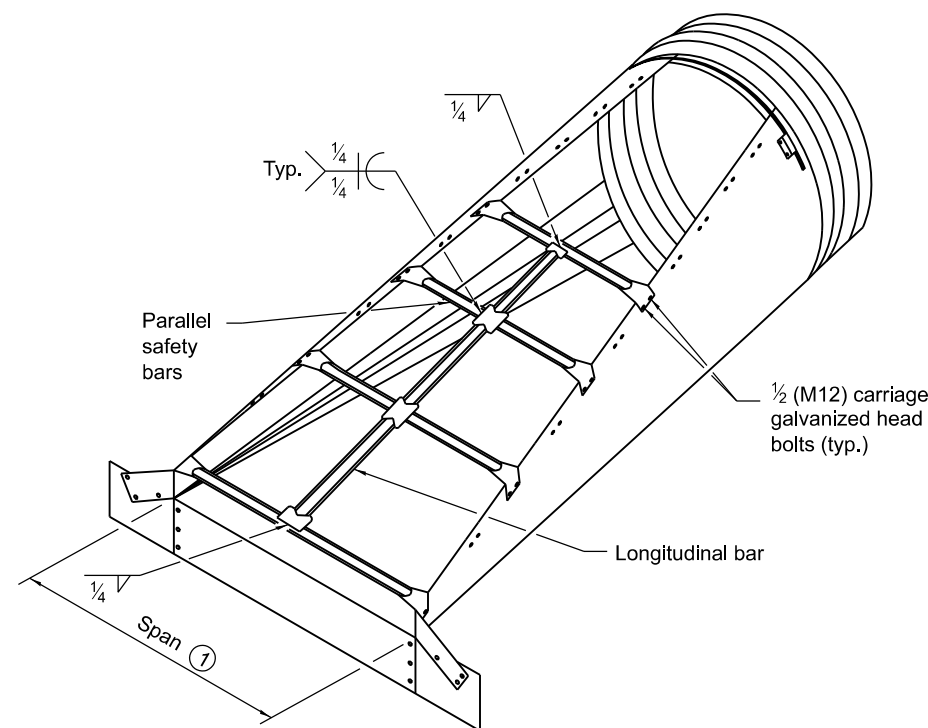


LONGITUDINAL DRAINAGE BAR

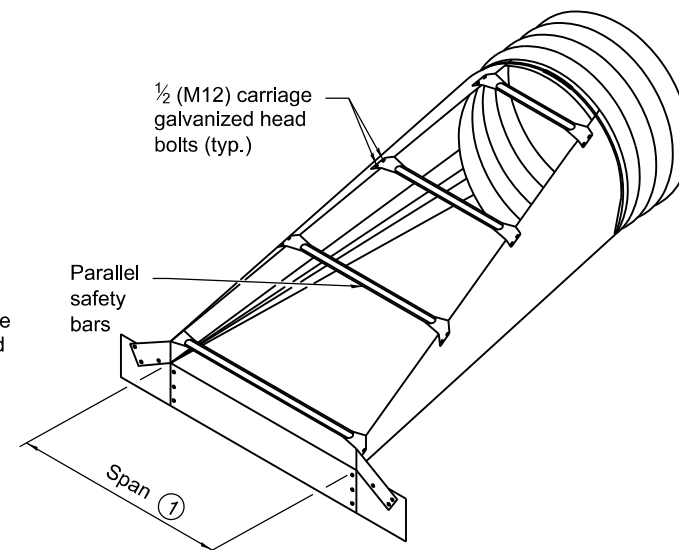


PARALLEL BARS

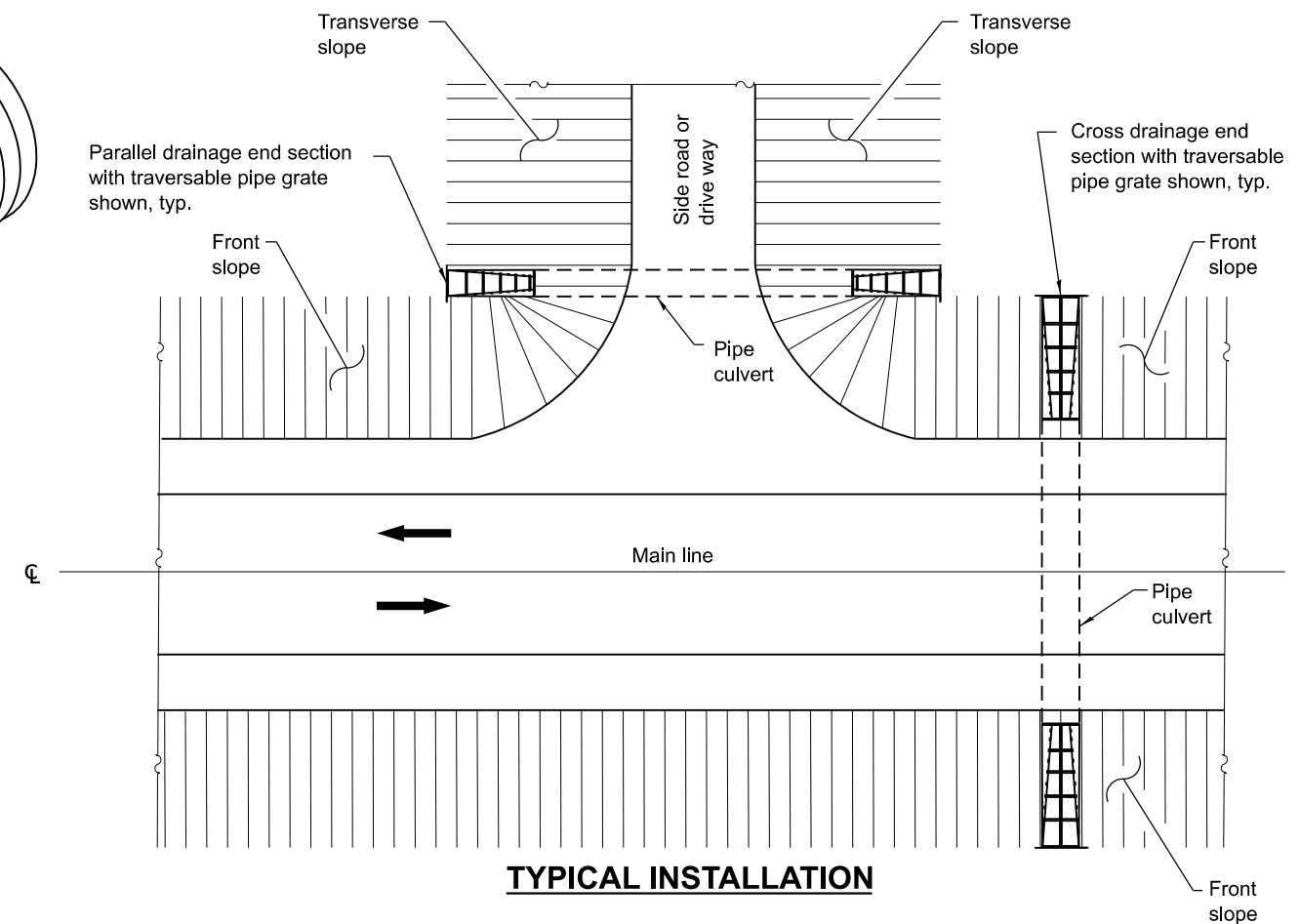
SAFETY BAR DETAILS



CROSS DRAINAGE END SECTION



**PARALLEL DRAINAGE
END SECTION**



TYPICAL INSTALLATION

- ① Provide longitudinal bar(s) when the span exceeds 30 (750). Provide additional longitudinal bars as needed so that spacing does not exceed 30 (750) for larger end sections.