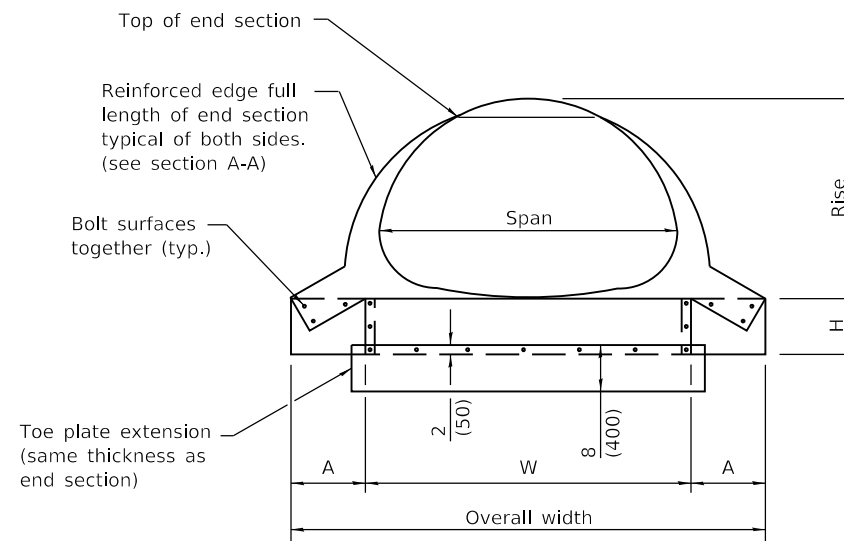
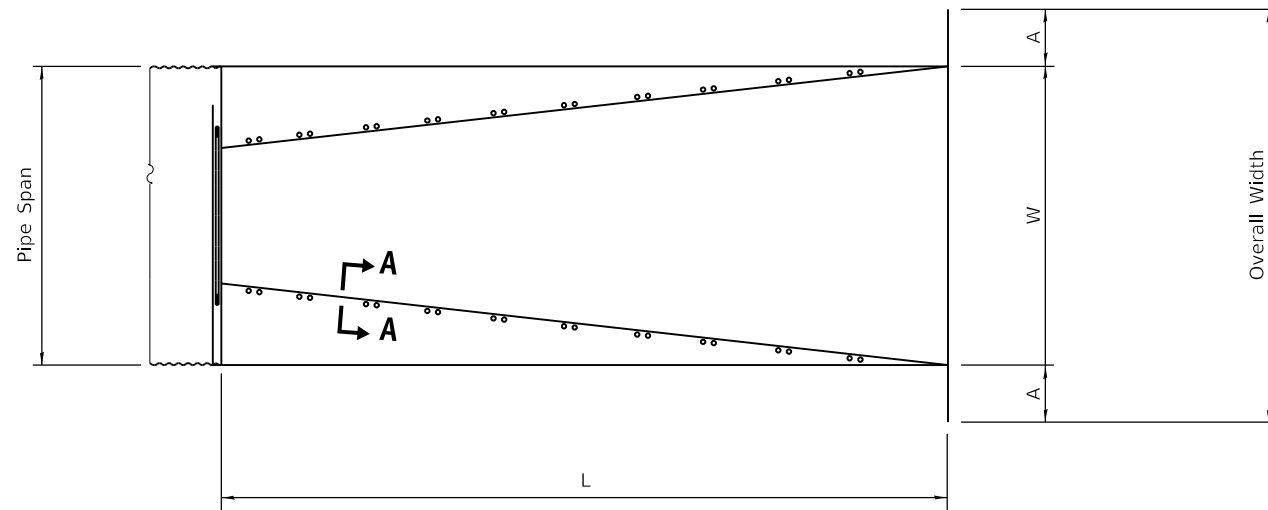


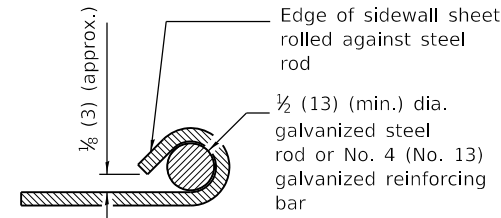
ELEVATION



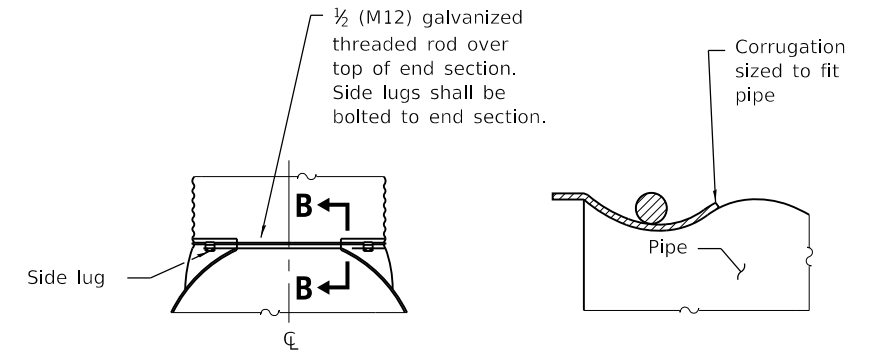
END VIEW



PLAN

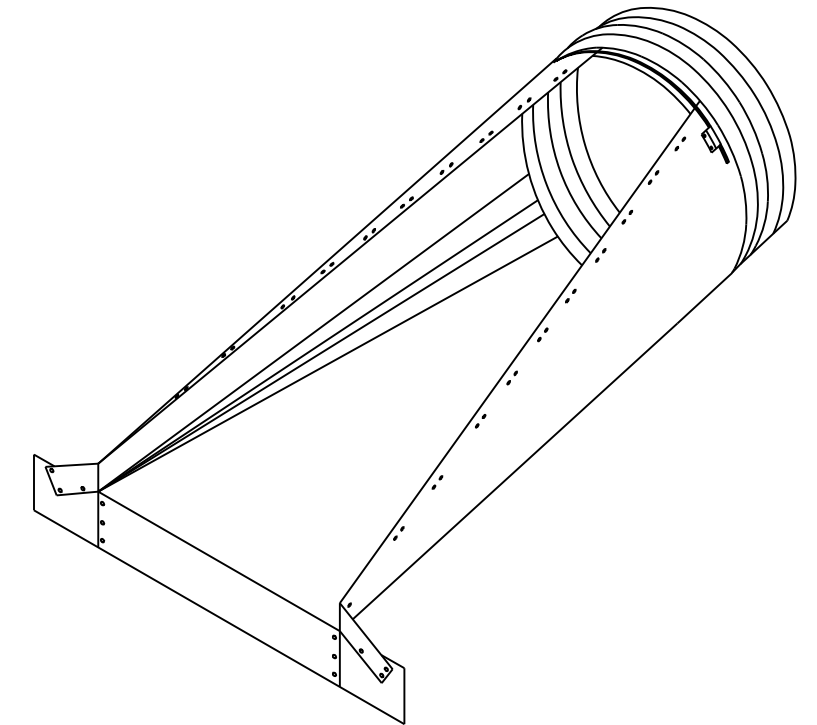


SECTION A-A



CONNECTIONS OF END SECTION

SECTION B-B



END SECTION PERSPECTIVE VIEW

METAL END SECTIONS FOR PIPE ARCH CULVERT

PIPE EQUIV. ROUND DIA.	METAL THICK. (min.)	DIMENSIONS											
		A	H	W	OVERALL WIDTH	CORRIGATION 2 1/2 x 1/2				CORRIGATION 3 x 1 OR 5 x 1			
						SPAN	RISE	L		SPAN	RISE	L	
								SLOPE 1:4	SLOPE 1:6			SLOPE 1:4	SLOPE 1:6
15 (375)	0.064 (1.63)	8 (200)	6 (150)	23 (585)	39 (1000)	17 (430)	13 (330)	12 (300)	18 (460)	—	—	—	—
18 (450)	0.064 (1.63)	8 (200)	6 (150)	27 (700)	43 (1100)	21 (530)	15 (380)	20 (500)	30 (750)	—	—	—	—
21 (525)	0.064 (1.63)	8 (200)	6 (150)	30 (750)	46 (1150)	24 (610)	18 (460)	32 (810)	48 (1220)	—	—	—	—
24 (600)	0.064 (1.63)	8 (200)	6 (150)	33 (830)	49 (1250)	28 (700)	20 (500)	40 (1000)	60 (1500)	—	—	—	—
30 (750)	0.109 (2.77)	12 (300)	9 (225)	40 (1025)	64 (1625)	35 (870)	24 (630)	55 (1400)	83 (2100)	—	—	—	—
36 (900)	0.109 (2.77)	12 (300)	9 (225)	47 (1200)	71 (1800)	42 (1060)	29 (740)	75 (1900)	112 (2850)	—	—	—	—
42 (1050)	0.109 (2.77)	16 (400)	12 (300)	54 (1375)	86 (2175)	49 (1240)	33 (840)	90 (2300)	136 (3450)	—	—	—	—
48 (1200)	0.109 (2.77)	16 (400)	12 (300)	62 (1575)	94 (2375)	57 (1440)	38 (970)	110 (2800)	165 (4200)	53 (1340)	41 (1050)	124 (3150)	186 (4720)
54 (1350)	0.109 (2.77)	16 (400)	12 (300)	69 (1750)	101 (2550)	64 (1620)	43 (1100)	130 (3300)	195 (4950)	60 (1520)	46 (1170)	144 (3660)	216 (5490)
60 (1500)	0.109 (2.77)	16 (400)	12 (300)	76 (1925)	107 (2725)	71 (1800)	47 (1200)	146 (3700)	218 (5550)	66 (1670)	51 (1300)	164 (4170)	246 (6250)
66 (1650)	0.109 (2.77)	16 (400)	12 (300)	79 (2000)	111 (2800)	77 (1950)	52 (1320)	180 (4600)	270 (6850)	73 (1850)	55 (1400)	180 (4580)	270 (6860)
72 (1800)	0.109 (2.77)	16 (400)	12 (300)	88 (2225)	120 (3025)	83 (2100)	57 (1450)	185 (4700)	278 (7050)	81 (2050)	59 (1500)	196 (4980)	294 (7470)

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 ARCH CULVERTS 15" (375 mm) THRU 72" (1800 mm) EQUIVALENT DIA.

(Sheet 1 of 2)

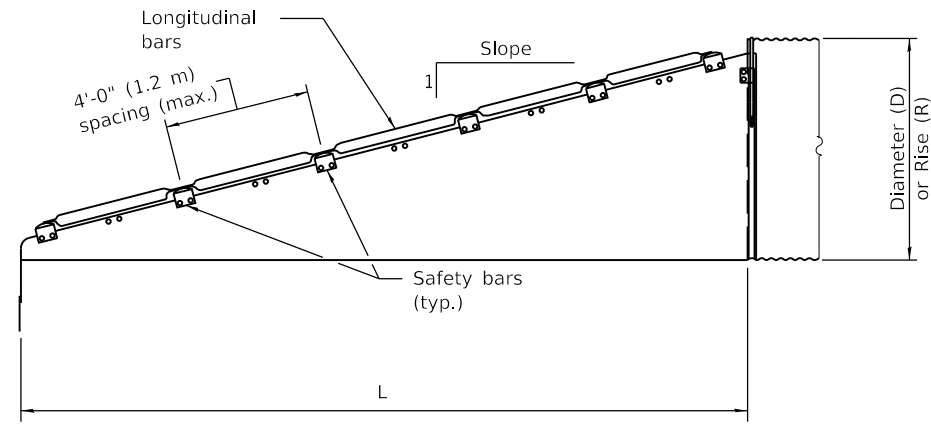
STANDARD 542416

Illinois Department of Transportation

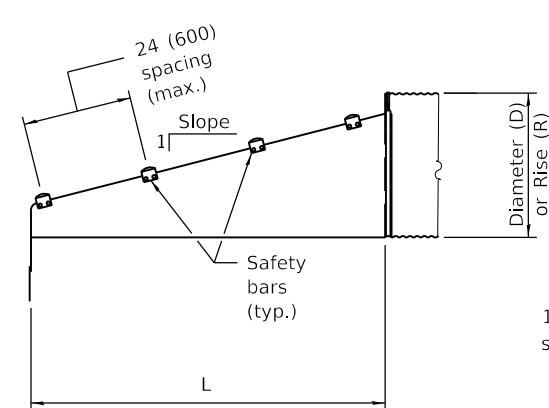
PASSED January 1, 2018
Michael Brand
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Marcus M. Beck
 ENGINEER OF DESIGN AND ENVIRONMENT

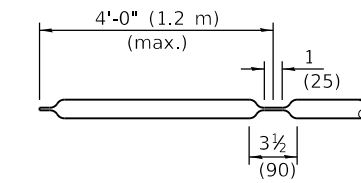
ISSUED 1-1-18



**CROSS DRAINAGE
END SECTION - ELEVATION**

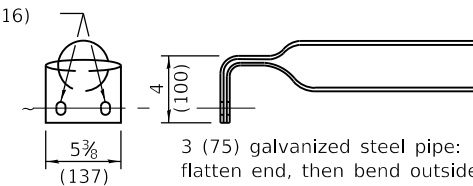


**PARALLEL DRAINAGE
END SECTION - ELEVATION**



LONGITUDINAL DRAINAGE BAR

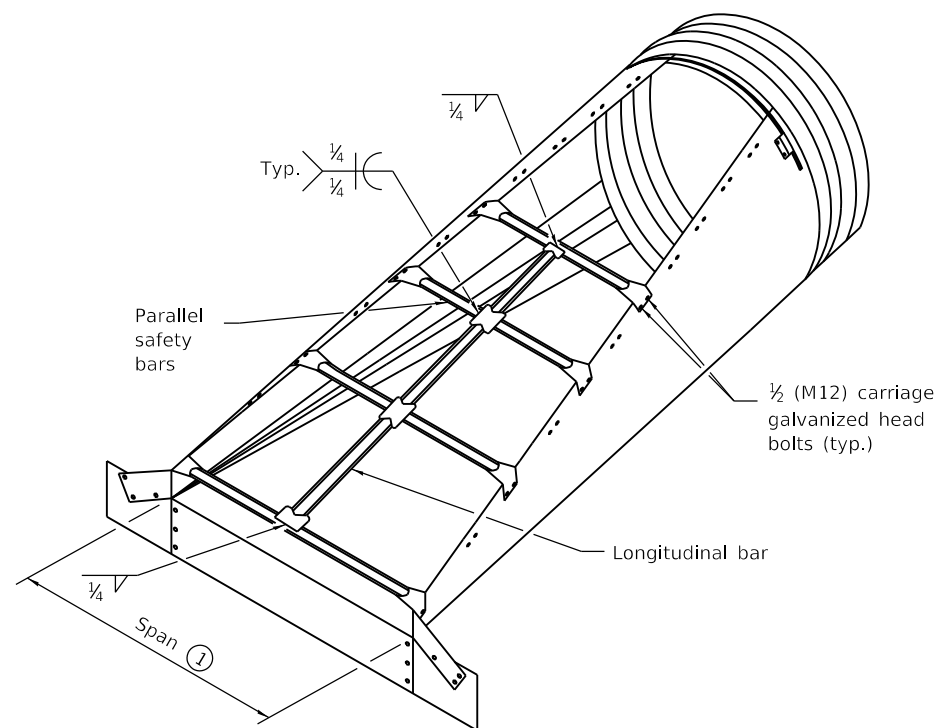
1 x 5/8 (25 x 16) slots



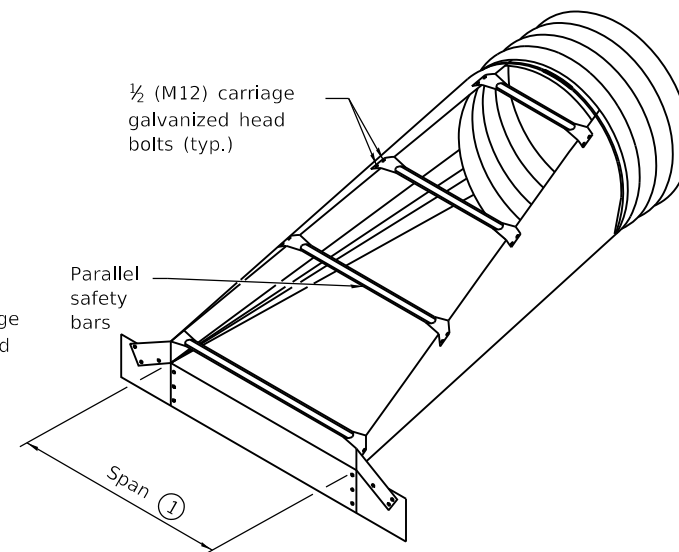
3 (75) galvanized steel pipe: flatten end, then bend outside 4 (100) to match end section sides.

PARALLEL BARS

SAFETY BAR DETAILS

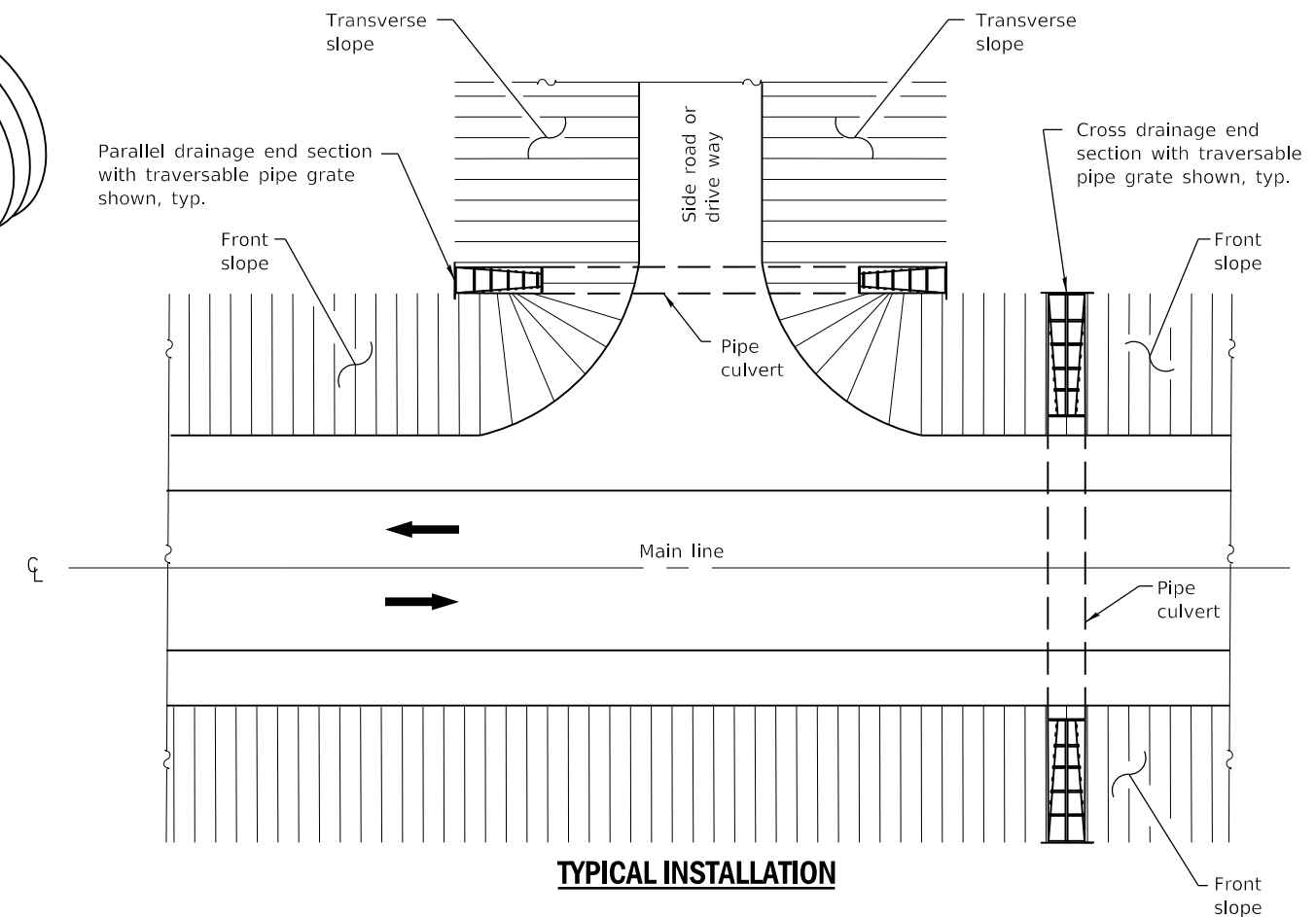


CROSS DRAINAGE END SECTION



**PARALLEL DRAINAGE
END SECTION**

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.



TYPICAL INSTALLATION

Illinois Department of Transportation

PASSED January 1, 2018
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Marcus M. Beck
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-18

**SLOPED METAL END SECTIONS FOR PIPE
ARCH CULVERTS 15" (375 mm) THRU
72" (1800 mm) EQUIVALENT DIA.**

(Sheet 2 of 2)

STANDARD 542416