

DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION

AASHO DESIGNATION M259
(ASTM DESIGNATION C-789)
DESIGN LOADING = HS20-44

**NOTE: THE DIMENSIONS INDICATED ARE FOR END SECTIONS THAT ARE TO BE USED WITH PRECAST BOX CULVERT SECTIONS DESIGNED FOR 2 FEET OR MORE OF FILL. THE DIMENSIONS MUST BE MODIFIED FOR THE END SECTION TO BE COMPATIBLE WITH PRECAST CULVERT SECTIONS DESIGNED FOR LESS THAN 2 FEET OF FILL.

CULVERT SIZE	DIMENSIONS **									
	SPANxRISE (FOOT)	T	A	B	C	E	F	G	H	SLOPE
		INCH	FT-IN	FT-IN	INCH	FT-IN	FT-IN	FT-IN	FT-IN	FT-IN
2x2	4	2-8	2-8	4	3-0	3-0	1-0	1-0	3:1	
3x2	4	3-8	2-8	4	3-0	3-0	1-0	1-0	3:1	
3x3	4	3-8	3-8	4	2-0	4-0	1-8	1-4	3:1	
4x2	5	4-10	2-10	5	3-0	3-0	1-0	1-0	3:1	
4x3	5	4-10	3-10	5	2-0	4-0	1-8	1-4	3:1	
4x4	5	4-10	4-10	5	2-0	4-0	2-0	2-0	2:1	
5x2	6	6-0	3-0	6	3-0	3-0	1-0	1-0	3:1	
5x3	6	6-0	4-0	6	2-0	4-0	1-8	1-4	3:1	
5x4	6	6-0	5-0	6	2-0	4-0	2-0	2-0	2:1	
5x5	6	6-0	6-0	6	2-0	4-0	3-0	2-0	2:1	
6x2	7	7-2	3-2	7	3-0	3-0	1-0	1-0	3:1	
6x3	7	7-2	4-2	7	2-0	4-0	1-8	1-4	3:1	
6x4	7	7-2	5-2	7	2-0	4-0	2-0	2-0	2:1	
6x5	7	7-2	6-2	7	2-0	4-0	3-0	2-0	2:1	
6x6	7	7-2	7-2	7	2-0	4-0	4-0	2-0	2:1	
7x3	8	8-4	4-4	8	2-0	4-0	1-8	1-4	3:1	
7x4	8	8-4	5-4	8	2-0	4-0	2-0	2-0	2:1	
7x5	8	8-4	6-4	8	2-0	4-0	3-0	2-0	2:1	
7x6	8	8-4	7-4	8	2-0	4-0	4-0	2-0	2:1	
7x7	8	8-4	8-4	8	2-0	4-0	5-0	2-0	2:1	
8x2	8	9-4	3-4	8	2-0	3-0	1-0	1-0	3:1	
8x4	8	9-4	5-4	8	2-0	4-0	2-0	2-0	2:1	
8x5	8	9-4	6-4	8	2-0	4-0	3-0	2-0	2:1	
8x6	8	9-4	7-4	8	2-0	4-0	4-0	2-0	2:1	
9x5	9	10-6	6-6	9	2-0	4-0	3-0	2-0	2:1	
9x6	9	10-6	7-6	9	2-0	4-0	4-0	2-0	2:1	

CULVERTS WITH RISE > 12 FT REQUIRE CAST-IN-PLACE END SECTIONS

GENERAL NOTES

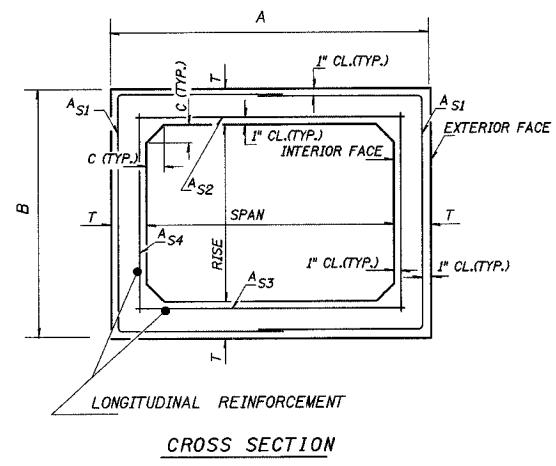
SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04(a) OF THE STANDARD SPECIFICATIONS.

MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.

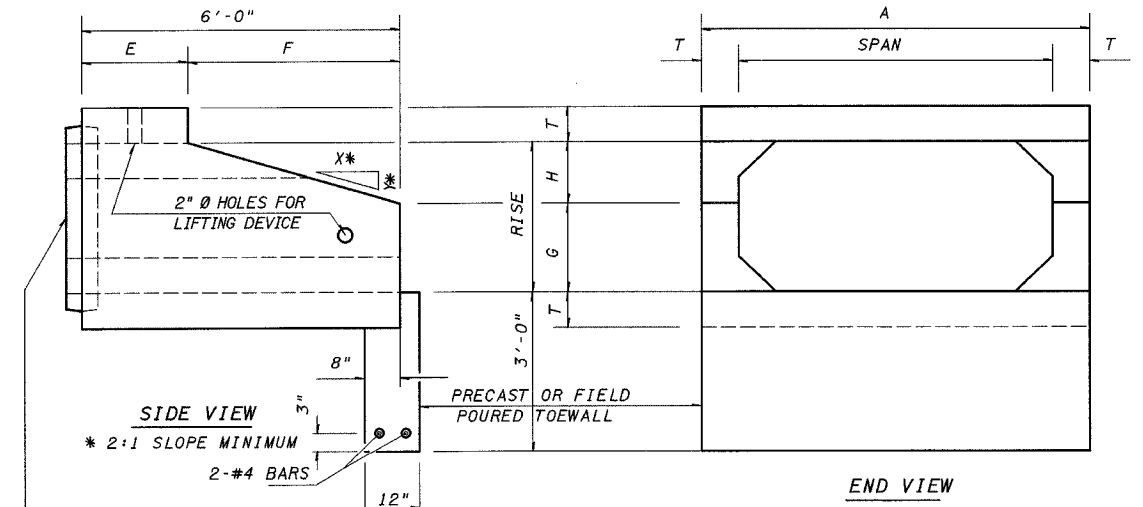
THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH ACCORDANCE WITH ARTICLE 542.04(d) OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE TERMS A_{S1} , A_{S2} , A_{S3} , AND A_{S4} DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN AASHTO M259. REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO AASHTO SPECIFICATIONS M55.

LIFTING HOLES SHALL BE FILLED WITH CONCRETE PLUGS AND MASTIC AFTER THE END SECTIONS ARE IN PLACE.

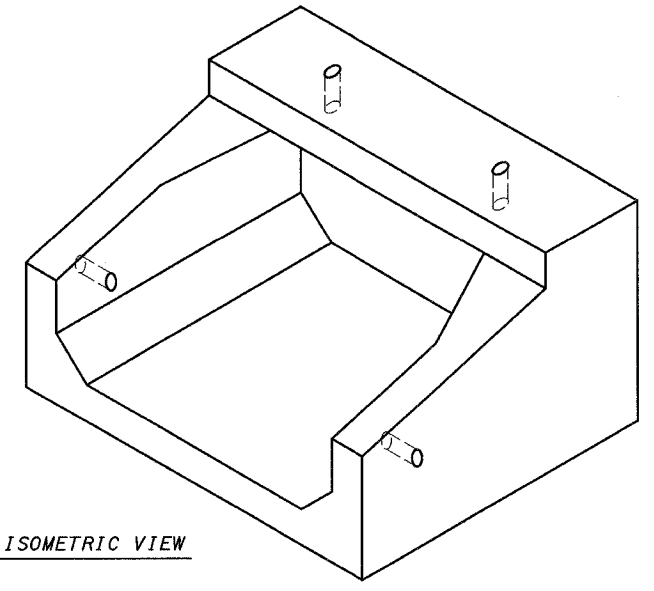


CROSS SECTION

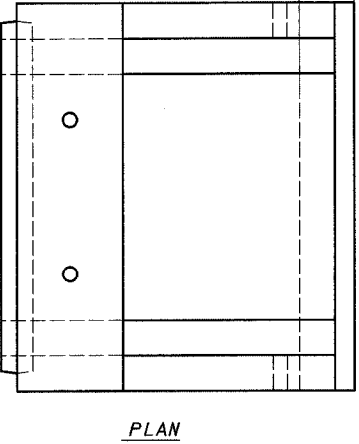


END VIEW

END CONNECTION TO FIT PRECAST BOX CULVERT (BELL OR SPIGOT MAY BE OMITTED WHEN COLLARING TO AN EXISTING BOX OR HEADWALL).



ISOMETRIC VIEW



PLAN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION

DATE REVISED: 05/28/99

DRAWN BY DIST. 7
CHECKED BY BWC

1 2 3 4 5 6 7 8 9 \$DATE\$
10 11 12 13 14 15 16 17 18 *DGN-SPEC*
19 20 21 22 23 24 25 26 27 *MMO REV: MMO
28 29 30 31 32 33 34 35
36 37 38 39 40 41 42 43 44 45
46 47 48 49 50 51 52 53 54
55 56 57 58 59 60 61 62 63

EC850

DGN-SPEC
DATE