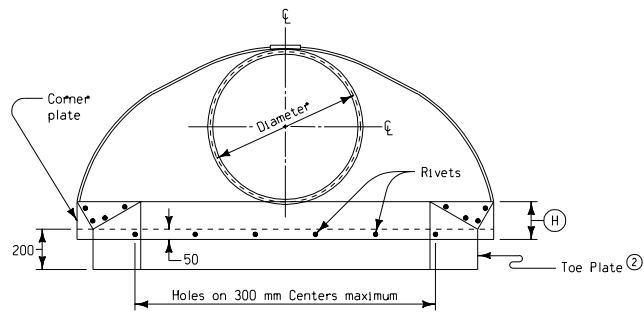
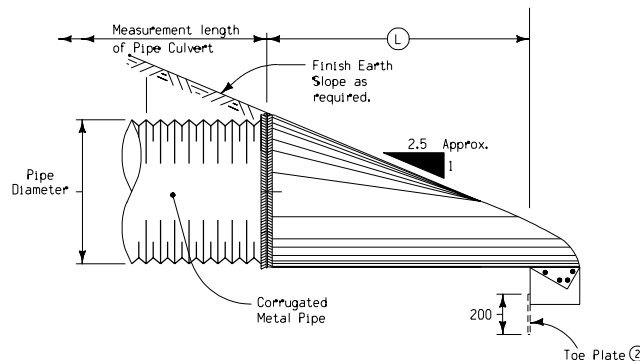


PLAN VIEW

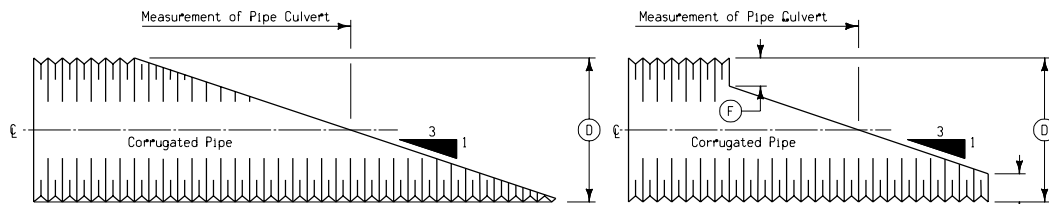
DIMENSIONS					
PIPE DIAM.	A (±25)	B MAX.	H (±25)	L (±40)	W (±50)
150	115	25	75	220	305
200	150	75	100	360	405
250	190	150	150	535	610
300	120	150	150	535	610
375	150	205	150	660	760
450	180	230	150	785	905
525	210	280	150	915	1765
600	240	305	150	1065	1220
750	305	380	190	1335	1525
900	355	455	230	1600	1830
1050	405	535	265	1865	2135
1200	455	685	305	2135	2285
1350	455	760	305	2135	2590
1500	455	840	305	2210	2895
1650	455	915	305	2210	3050
1800	455	990	305	2210	3200
1950	455	1065	305	2210	3355
2100	455	1145	305	2210	3505
2250	610	940	280	2210	3660
2400	635	890	305	2210	3810



END VIEW



SIDE VIEW



FULL

STEP

BEVELED ENDS FOR CORRUGATED METAL PIPE

BEVEL 3:1	
(D)	(F)
1350	75
1500	150
1650	225
1800	300
1950	375
2100	450
2250	525
2400	600

NOTE:

When specifically required as part of detail project plans, ends of pipe culvert may be provided with beveled ends as shown. Either full bevel or step bevel may be used unless one type is specified. Unless specified otherwise the slope of the bevel shall be 3:1.

Beveled ends will not be paid for separately but when required shall be considered incidental to the price bid for the culvert.

GENERAL NOTES:

Metal pipe aprons and hardware shall be constructed of galvanized steel in conformance with the requirements of the current Standard and Supplemental Specifications for Corrugated Culverts and essentially as indicated hereon. Refer to other appropriate Standards Road Plans as well as project plans for additional details of individual culvert installations. Alternate design details may be submitted to the Engineer for approval.

Aprons may be attached to culvert pipe as follows:

- A. If normal culvert is of circumferential corrugation type use an approved bolt or clamp to fasten apron directly to culvert.
- B. If normal culvert is of helical corrugation type:
 1. Use an approved sizing ring securely fastened to inside diameter of apron to connect to the culvert pipe using special dimple band connector.
 2. "Dimple" bands are not allowed when a positive joint is specified.

See Materials I.M. 441 for Approved Coupling Devices and specific requirements.

Any damage to spelter Coat resulting from installation of culvert shall be repaired as directed by the Engineer.

Price bid for "Metal Aprons" shall be considered full compensation for fabrication and installation of the metal apron as detailed hereon.

- ① On sizes 1500 millimeter and larger the reinforced edge should be supplemented with a galvanized stiffener angle attached with bolts.
- ② Galvanized Toe Plate (Same thickness metal as apron) shall be installed on all aprons 600 millimeter diameter and larger.

All dimensions given in millimeters unless noted.

M	 Iowa Department of Transportation	
	Project Development Division	
	STANDARD ROAD PLAN	RF-5
	REVISION: Delete M Distance	REVISION NO. 7
APPROVED BY: DESIGN METHOD ENGINEER	06-07-00 REVISION DATE 10-03-00	
METRIC VERSION		
METAL PIPE APRONS AND BEVELED ENDS		