

-Corrugation sized

to fit pipe.

SECTION B-B



FRONT VIEW

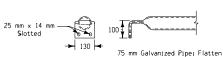
CONNECTOR DETAIL (375 mm - 600 mm Dia.)

12.7 mm Dia. Threaded Rod
over top of End Section.
Side Lugs to be boited
to End Section.

Side Lug

Galvanized
Strap

CONNECTOR DETAIL
(750 mm - 1500 mm Dia.)

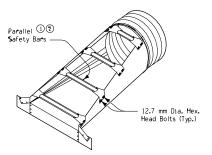


end, then bend outside 100 mm to match end section sides.

PARALLEL BARS
DETAIL OF SAFETY BARS

## SIDE ELEVATION

METAL END SECTIONS FOR CIRCULAR PIPES						
Pipe	Thick.	Dimensions (mm)				
Dia. mm	mm	A	(H)	W	Overall Width	L
375	1.6	205	150	530	940	760
450	1.6	205	150	610	1020	1220
525	1.6	205	150	685	1095	1675
600	1.6	205	150	760	1170	2135
750	2.8	305	230	915	1525	3050
900	2.8	305	230	1065	1675	3960
1050	2.8	405	305	1220	2030	4875
1200	2.8	405	305	1375	2185	5790
1350	2.8	405	305	1525	2335	6705
1500	2.8	405	305	1680	2490	7620



PERSPECTIVE VIEW
OF APRON

- 1 Number of bars required will vary depending on the length of the end section.
- Parallel safety bars are required for pipes 750 millimeter diameter and larger. For pipes 600 millimeter diameter and smaller, parallel safety bars will be required only when specified in project plans.

## GENERAL NOTES:

Details on this sheet indicate the typical requirements for Metal Safety Slope Aprons. Refer to appropriate other Standard Road Plans as well as project plans for additional details of individual culverts installations. Alternate design details may be submitted to the Engineer for approval.

Materials and methods of construction shall be in accordance with current Standard and Supplemental Specifications.

Furnishing and installing the metal safety slope aprons shall conform to the requirements of current specifications for "Corrugated Culverts."

Apron 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:
  - Use an approved sizing ring securely fastened to inside diameter of apron to connect to the culvert pipe using special dimple band connector.
  - "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 galvanizing coat resulting from installation of culvert shall be repaired as directed by the Engineer.

Price bid for "Safety Slope Aprons" of the size specified shall be considered full compensation for fabrication and installation of metal aprons as indicated hereon.

All dimensions given in millimeters unless noted.

