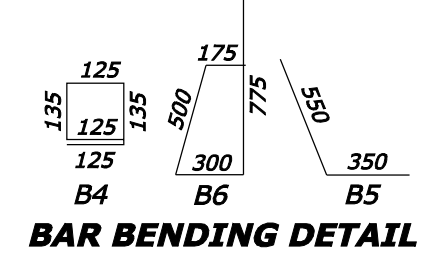


- NOTE:**
1. See Standard M619-1 for reinforcing steel size and grade.
  2. See Standard M619-2 for cattle guard wing details. Fabricate end units to accommodate selected cattle guard wing.
  3. Minimum soil bearing 19,500 kg/m<sup>2</sup>. Place units in fine aggregate bed 75 mm thick over hand leveled soil compacted to not less than 95 percent density.
  4. Chamfer exposed concrete edges 20 mm unless otherwise shown. Give all concrete surfaces a Class 1 finish.
  5. Approved alternate designs may be used.
  6. Dimensions without units are millimeters.

PRECAST CATTLE GUARD REINFORCING STEEL AND CONCRETE					
UNIT	No. of BARS	BAR MARK	LENGTH	MASS kg	CONCRETE m <sup>3</sup>
1.8 m END	7	B3	2100	14.6	1.40
	10	B2	1850	18.4	
	8	B1	425	3.4	
	6	B4	650	3.9	
1.8 m INTERIOR	18	B6	1750	31.3	1.41
	6	B5	900	5.4	
	8	B3	2100	16.7	
	10	B2	1650	16.4	
2.4 m INTERIOR	12	B4	650	7.8	1.73
	18	B6	1750	31.3	
	8	B5	900	7.2	
	20	B6	1750	34.8	
2.4 m END	8	B3	2100	16.7	1.72
	10	B2	2450	24.4	
	8	B1	425	3.4	
	6	B4	650	3.9	
	20	B6	1750	34.8	
	6	B5	900	5.4	



U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
FEDERAL LANDS HIGHWAY  
METRIC STANDARD

**CATTLE GUARD PRECAST FOUNDATION**

STANDARD APPROVED FOR USE 3/1996  
REVISED: 11/1997 6/2005

STANDARD M619-3