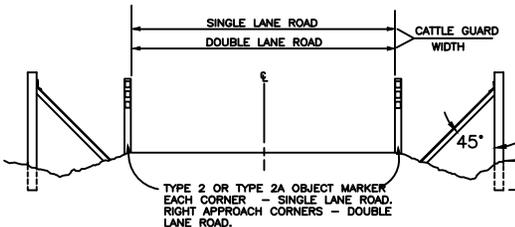
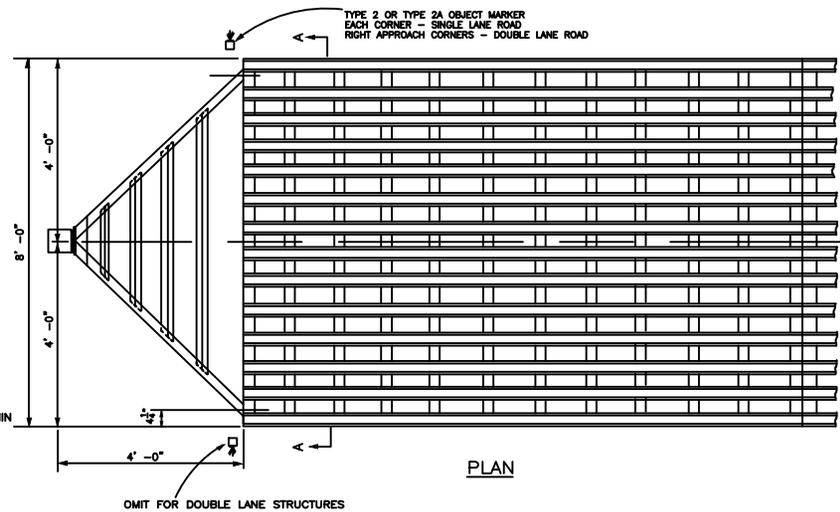


ALTERNATE RAIL SECTIONS  
(NOT TO SCALE)



TYPICAL INSTALLATION DETAIL  
(NOT TO SCALE)



PLAN

**GENERAL NOTES**

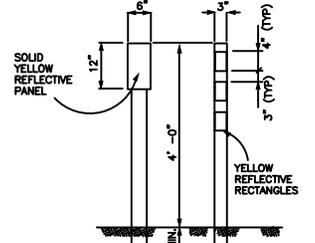
DESIGN LOADING: AASHTO HS20-44 LOADING AND U.S.F.S. U80 LOADING.

STRUCTURAL STEEL: ALL STRUCTURAL STEEL EXCEPT RAIL SECTIONS SHALL CONFORM TO AASHTO DESIGNATION M183-70 (ASTM A 36). RAIL SECTIONS SHALL BE EITHER FORMED SECTIONS MADE FROM HIGH STRENGTH STEEL CONFORMING TO ASTM A 570, GRADE 45 OR BETTER, OR RECTANGULAR STEEL TUBE SECTIONS CONFORMING TO ASTM DESIGNATION A500, GRADE B. BOLTS AND PINS SHALL CONFORM TO ASTM DESIGNATION A 307. WELDING AND FABRICATION SHALL BE DONE IN ACCORDANCE WITH SECTION 555 OF THE STANDARD SPECIFICATIONS OR SUPPLEMENTAL SPECIFICATIONS.

TIMBER: SHALL BE ROUGH CUT NO. 1 DOUGLAS FIR, OR WESTERN LARCH AND SHALL BE TREATED IN ACCORDANCE WITH AMPA C-2 USING ONE OF THE FOLLOWING TREATMENTS: (1) PENTACHLOROPHENOL MEETING AMPA P-8 USING AN AMPA P-9 TYPE A SOLVENT TO A RETENTION OF 0.4 PCF; (2) CREOSOTE MEETING AMPA P1/P13 TO A RETENTION OF 8 PCF. PENETRATION SHALL BE AS SPECIFIED IN AMPA C-2.

PAINT: ALL METAL PARTS OF THE CATTLE GUARD EXCEPT THE ANCHOR PINS SHALL BE PAINTED IN ACCORDANCE WITH SECTIONS 563 AND 708 OF THE STANDARD SPECIFICATIONS. PAINT SYSTEM 1 OR 2 SHALL BE USED FOR COASTAL ENVIRONMENTS. PAINT SYSTEM 4 SHALL BE USED IN MILDER CLIMATES. THE COLOR OF THE FINAL COAT SHALL BE DETERMINED BY THE ENGINEER OR SHALL BE AS INDICATED IN OTHER CONTRACT DOCUMENTS.

ANCHOR PINS: SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO DESIGNATION M 111 (ASTM A 123).



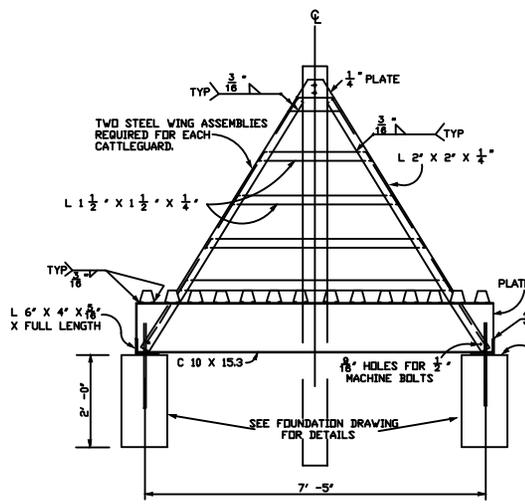
CATTLEGUARD WIDTH	CHANNEL SPACING					
	8 FEET	10 FEET	12 FEET	14 FEET		
LOADING	U80	U80	U80 HS20	U80	HS20	
A (NUMBER)	7	9	10	9	12	10
B (SPACING)	16"	15"	16"	18"	15-3/4"	18-3/4"

NOTE: SINGLE LANE STRUCTURES SHALL BE MINIMUM 14'-0" WIDTH. OTHER WIDTHS ARE TO BE USED ONLY IN COMBINATION TO CONSTRUCT WIDER SINGLE LANE OR DOUBLE LANE STRUCTURES.

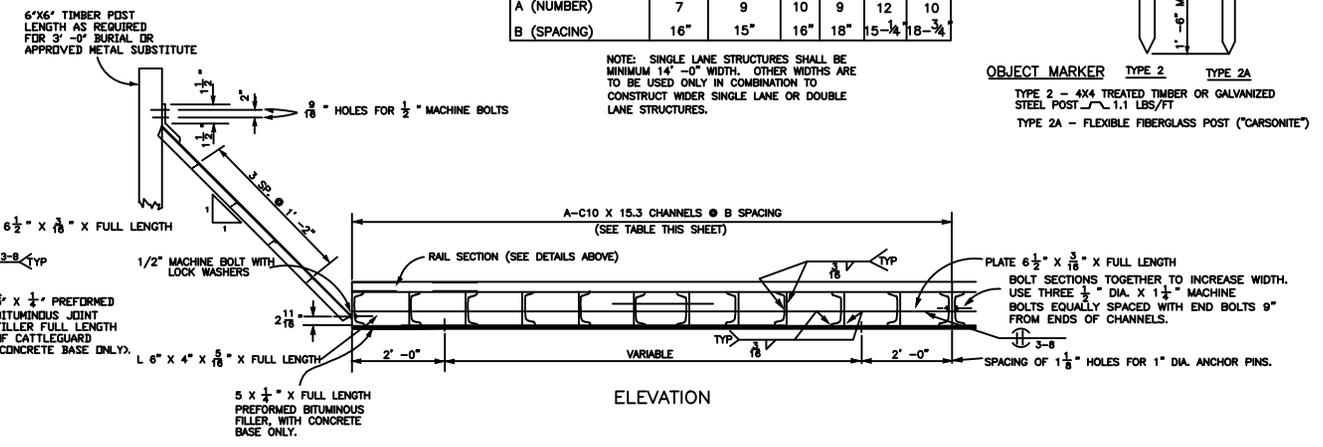
**OBJECT MARKER TYPE 2 TYPE 2A**

TYPE 2 - 4X4 TREATED TIMBER OR GALVANIZED STEEL POST 1.1 LBS/FT

TYPE 2A - FLEXIBLE FIBERGLASS POST ("CARSONITE")



SECTION A-A



ELEVATION

