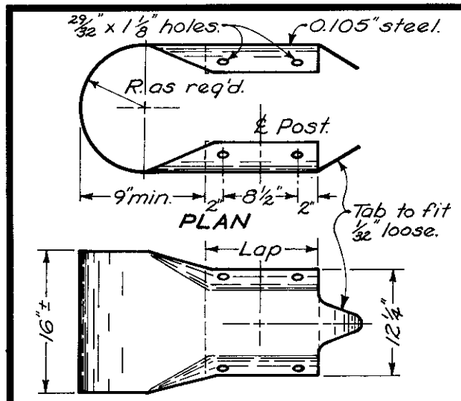
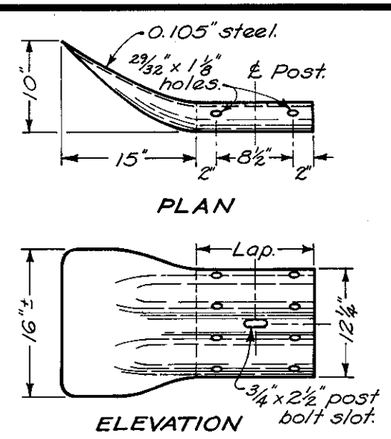
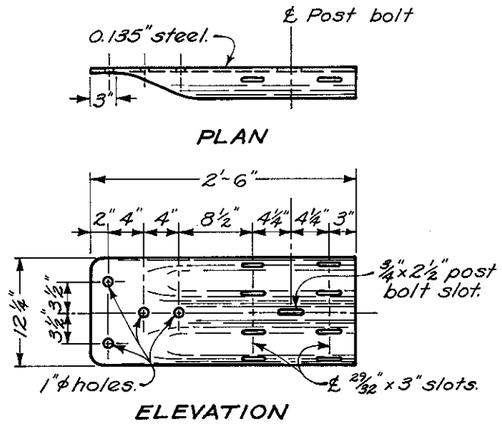


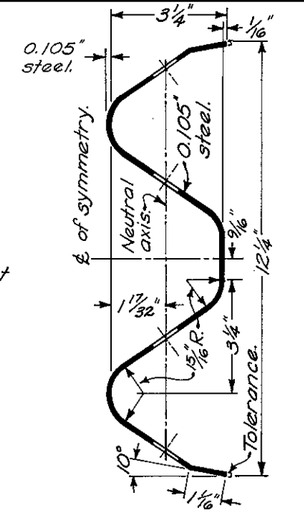
BUFFER END SECTION



FLARED END SECTION



TERMINAL CONNECTOR



SECTION BEAM RAIL

NOTES

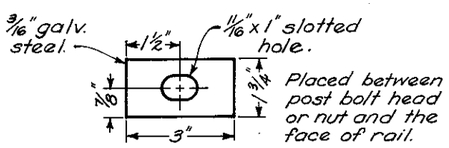
BEAM RAIL ELEMENTS shall be 12'-6" effective length, unless otherwise specified, with 3/4" x 2 1/2" post bolt slots on 6'-3" centers regardless of post spacing. Field punching or drilling of bolt holes or slots for irregularly spaced posts shall be according to 606.05.

BEAM RAIL SPLICE between two rail elements, or rail and terminal connector shall be lapped in the direction of traffic. The buffer or flared end sections shall lap on the traffic face. A 12" back-up plate shall be provided at intermediate posts not having a rail splice.

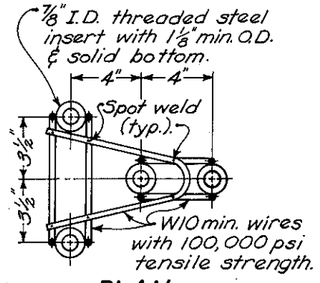
SPECIAL POST MOUNTINGS: Inlet mounted posts are required for guardrail posts located on a drainage inlet. Footing anchors are required for guardrail posts located on footers with less than 3'-5" cover except that for footer cover of 2'-6" to 3'-5" the posts may be installed by using a 4" minimum concrete encasement. The inlet mounted post may be used for footing anchors in runs with steel posts.

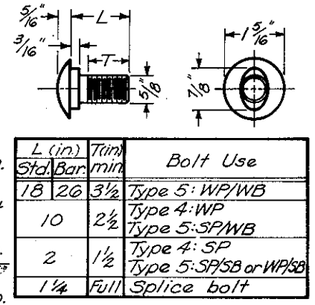
Cost of the inlet mounted posts and footing anchors shall be included in the unit price bid for guardrail of the type required by the plan unless paid for separately.

* Self-drilling anchors conforming to 712.01, or anchors per FF-S-325 Group II, Type 4, Class 1 or 2 with proof load certification per 712.01, may be substituted with the same bolt diameter specified.



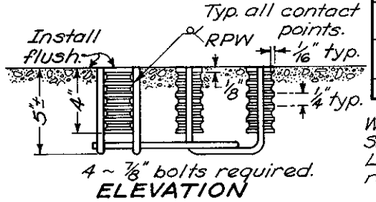
RECTANGULAR PLATE WASHER





L (in.) Std.	L (in.) Bar	T (in.) min.	Bolt Use
18	20	3 1/2	Type 5: WP/WB
10		2 1/2	Type 4: WP Type 5: SP/WB
2		1 1/2	Type 4: SP Type 5: SP/SB or WP/SB
1 1/4		Full	Splice bolt

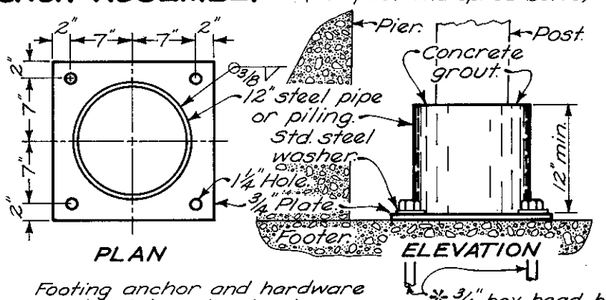
WP = wood post WB = wood block
SP = steel post SB = steel block
Longer bolt may be needed for round WP larger than 8" dia.



CONCRETE INSERT ANCHOR ASSEMBLY

BUTTON HEAD BOLT

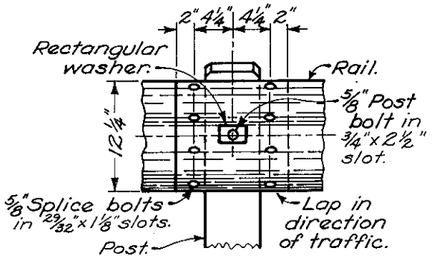
(For post and splice bolts)



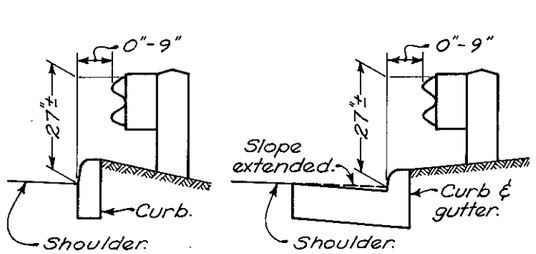
Footing anchor and hardware need not be galvanized.

* 3/4" hex head bolts with 5 unit compound anchors.

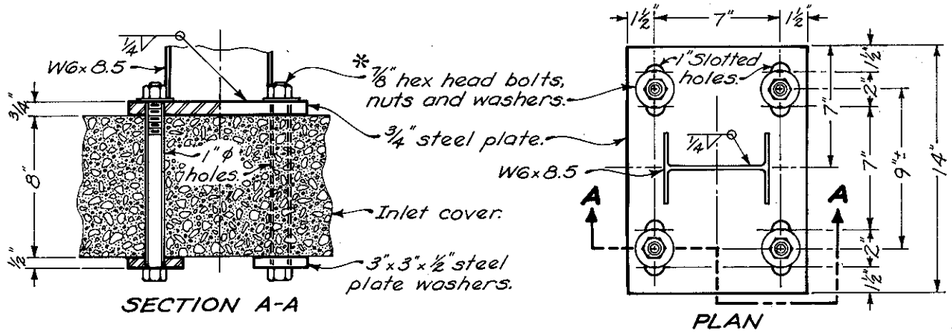
FOOTING ANCHOR



BEAM RAIL SPLICE



GUARDRAIL HEIGHT AT CURB



INLET MOUNTED POST

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF TRANSPORTATION

GUARDRAIL DETAILS

DATE 12-6-76

STANDARD CONSTRUCTION DRAWING GR-1

APPROVED M. J. Cunningham ENGR., L. & D.