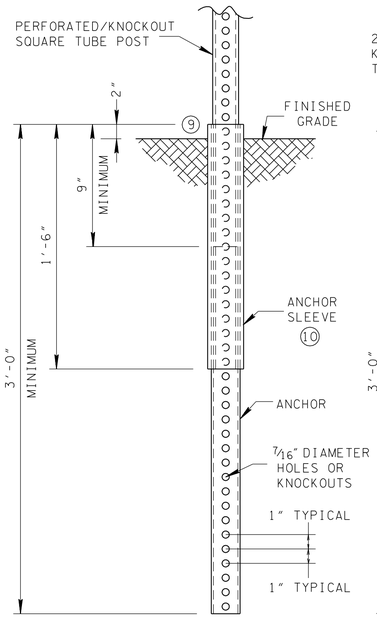
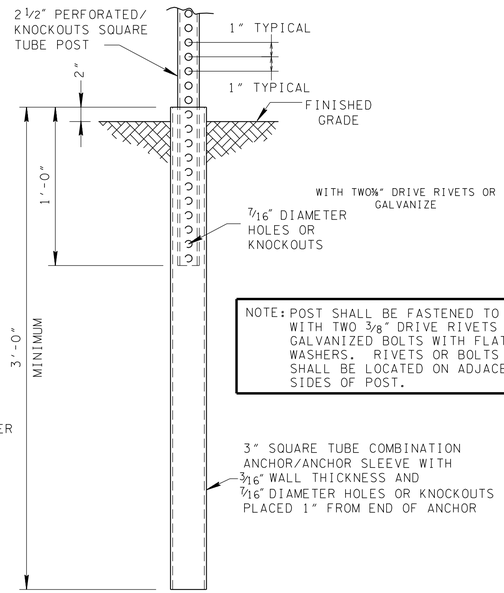


POST INSTALLATION DETAIL FOR 1 ½", 1 ¾" AND 2" SUPPORT POSTS

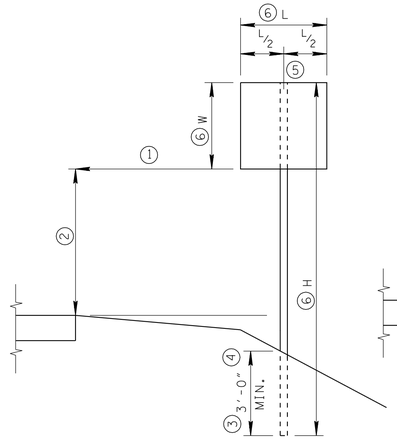
(SEE TABLE FOR SIZE OF ANCHOR/ANCHOR SLEEVE)



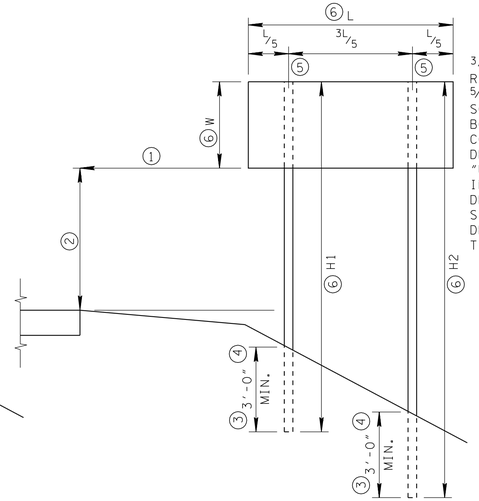
NOTE: POST SHALL BE FASTENED TO ANCHOR WITH TWO ⅜" DRIVE RIVETS OR GALVANIZED BOLTS WITH FLAT WASHERS. RIVETS OR BOLTS SHALL BE LOCATED ON ADJACENT SIDES OF POST.

POST INSTALLATION DETAIL FOR 2 ½" SUPPORT POST

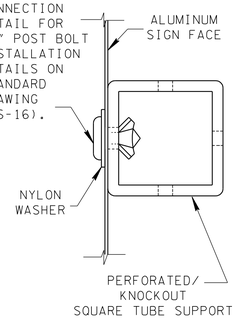
(SEE TABLE FOR SIZE OF COMBINATION ANCHOR/ANCHOR SLEEVE)



SHOULDER INSTALLATION FOR ONE PERFORATED/KNOCKOUT SQUARE TUBE SUPPORT



SHOULDER INSTALLATION FOR TWO PERFORATED/KNOCKOUT SQUARE TUBE SUPPORTS



CONNECTION DETAIL FOR PERFORATED/KNOCKOUT SQUARE TUBE POST

REV. 6-12-74: CHANGED TYPE OF STEEL FOR PERFORATED POSTS FROM ASTM A-366 TO ASTM A-446.

REV. 7-9-74: POST INSTALLATION DETAIL AND CONNECTION DETAIL ADDED. CORNER BOLT SIZE CHANGED.

REV. 8-19-74; NOTE ADDED REGARDING POST INSTALLATION. FOOTING DETAILS ADDED.

REV. 1-1-76: CHANGED DRAWING NO. FROM RD-S-17 TO T-S-17.

REV. 7-29-76: HARDWARE FINISH, FIELD SPLICE AND MISCELLANEOUS.

REV. 7-17-81: CHANGED ITEM NO. TO AGREE WITH NEW SPECIFICATION BOOK.

REV. 3-1-88: KNOCKOUT ALTERNATE ADDED.

REV. 11-22-90: REDREW AND REORGANIZED SHEET. ELIMINATED SHOULDER INSTALLATION USING THREE SUPPORTS.

REV. 12-7-90: CHANGED CONNECTION DETAIL FOR PERFORATED/KNOCKOUT SQUARE TUBE POST AND GENERAL NOTE (F).

REV. 7-29-91: CHANGED POST, ANCHOR AND ANCHOR SLEEVE TABLE. ADDED FOOTNOTE (10). CHANGED GENERAL NOTE (A).

REV. 1-19-92: CHANGED POST, ANCHOR AND ANCHOR SLEEVE TABLE. MODIFIED VARIOUS NOTES ON DRAWING INCLUDING GENERAL NOTE (A).

REV. 10-26-93: CHANGED WORDING OF GENERAL NOTE (E).

REV. 2-14-96: CHANGED WORDING OF GENERAL NOTE (A).

REV. 10-26-96: CHANGED PAY ITEM NO. IN GENERAL NOTE (H).

POST (SIZE AND WEIGHT)	ANCHOR (SIZE AND WEIGHT)	ANCHOR SLEEVE (SIZE AND WEIGHT)
1½" SQUARE (1.702 LB/FT) 12 GAGE	1¾" SQUARE (2.060 LB/FT) 12 GAGE	2" SQUARE (2.416 LB/FT) 12 GAGE
1¾" SQUARE (2.060 LB/FT) 12 GAGE	2" SQUARE (2.416 LB/FT) 12 GAGE	2¼" SQUARE (2.773 LB/FT) 12 GAGE
1¾" SQUARE (1.882 LB/FT) 14 GAGE	2" SQUARE (2.416 LB/FT) 12 GAGE	
2" SQUARE (2.416 LB/FT) 12 GAGE	2¼" SQUARE (2.773 LB/FT) 12 GAGE	2½" SQUARE (3.141 LB/FT) 12 GAGE
2" SQUARE (2.1639 LB/FT) 14 GAGE	2¼" SQUARE (2.773 LB/FT) 12 GAGE	
2½" SQUARE (3.141 LB/FT) 12 GAGE	3" SQUARE (6.86 LB/FT)	
2½" SQUARE (4.006 LB/FT) 10 GAGE	3" SQUARE (6.86 LB/FT)	

NOTE: ALL POSTS SHOWN IN ABOVE TABLE SHALL BE FABRICATED FROM 12 GAGE OR 10 GAGE MATERIAL (33,000 POUNDS PER SQUARE INCH MINIMUM YIELD STRENGTH) OR WHERE DESIGNATED USS 14 GAGE MATERIAL (60,000 POUNDS PER SQUARE INCH MINIMUM YIELD STRENGTH). ANCHORS AND ANCHOR SLEEVES (IF REQUIRED) SHALL BE FABRICATED FROM 12 GAGE MATERIAL OR GREATER. THE WEIGHT PER FOOT SHOWN IN THE TABLE ABOVE SHALL BE THE MINIMUM ACCEPTABLE.

LEGEND

W-HEIGHT OF SIGN FACE
L-LENGTH OF SIGN FACE
H-HEIGHT OF SIGN SUPPORT

GENERAL NOTES

(A) PERFORATED/KNOCKOUT POSTS SHALL BE SQUARE TUBE FORMED FROM USS GAGE (12 GAGE) OR USS GAGE (10 GAGE) ASTM A-446 COLD ROLLED CARBON STEEL OR A-570 HOT ROLLED CARBON SHEET STEEL. THE MINIMUM YIELD (Fy) IS TO BE 33,000 POUNDS PER SQUARE INCH, OR USS 14 GAGE HAVING A MINIMUM YIELD STRENGTH OF 60,000 POUNDS PER SQUARE INCH. THE SQUARE TUBES SHALL BE WELDED DIRECTLY IN THE CORNERS BY HIGH FREQUENCY RESISTANCE WELDING OR EQUAL. THE SUPPORT POSTS ARE TO BE EXTERNALLY SCARFED TO AGREE WITH STANDARD CORNER RADII OF 5/32" ± 1/64".

(B) PERFORATED/KNOCKOUT POSTS SHALL BE GALVANIZED TO CONFORM TO ASTM-525, DESIGNATION C-90 OR ITS CORROSION-RESISTANCE EQUIVALENT, WHEN TESTED IN ACCORDANCE WITH ASTM B-117 STANDARDS.

(C) ALL HARDWARE SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-307, CLASS A.

(D) ALL HARDWARE SHALL BE GALVANIZED TO CONFORM TO THE REQUIREMENTS OF FEDERAL SPECIFICATION QQ-Z-325, TYPE I, CLASS 3 OR CADMIUM PLATED TO CONFORM TO THE REQUIREMENTS OF FEDERAL SPECIFICATION QQ-P-416, TYPE III, CLASS 3.

(E) THE WEIGHT IN POUNDS OF THE POST, ANCHOR, ANCHOR SLEEVE AND COMBINATION ANCHOR/SLEEVE SHALL BE COMPUTED FOR PAYMENT UNDER ITEM NO. 713-11.02, PERFORATED/KNOCKOUT SQUARE TUBE POSTS. NO MEASUREMENT FOR PAYMENT WILL BE MADE FOR HARDWARE USED IN SIGN CONSTRUCTION. COST OF NECESSARY HARDWARE WILL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 713-11.02.

(F) THE SIGN FACE IS TO BE CONNECTED TO THE SUPPORT WITH ⅜" DRIVE RIVETS AND NYLON WASHER (SEE CONNECTION DETAIL FOR PERFORATED/KNOCKOUT SQUARE TUBE POST ON THIS SHEET). ALTERNATE CONNECTION WILL BE WITH 5/16" HEX OR SQUARE HEAD BOLT WITH NYLON WASHER, FLAT WASHER AND HEX OR SQUARE TAMPER-PROOF NUT (SEE CONNECTION DETAIL FOR "U" POST ON STANDARD DRAWING T-S-16).

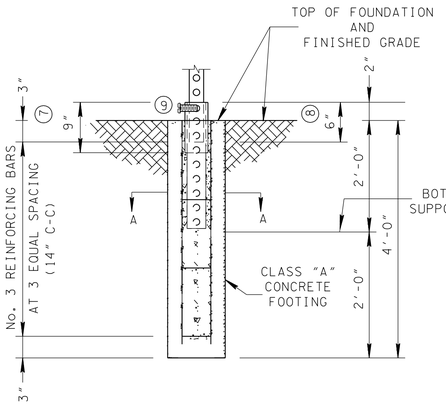
(G) CLASS "A" CONCRETE CONSTRUCTION AND MATERIALS SHALL MEET THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION, SECTION 604."

(H) CLASS "A" CONCRETE AND REINFORCING STEEL USED IN CONJUNCTION WITH INSTALLATION OF THE SIGN SUPPORT POSTS IS TO BE PAID FOR UNDER ITEM No. 713-01.01, CLASS "A" CONCRETE (FOUNDATION FOR SIGN SUPPORTS) PER CUBIC YARD, AND 713-01.02, STEEL BAR REINFORCEMENT (FOUNDATION FOR SIGN SUPPORTS) PER POUND.

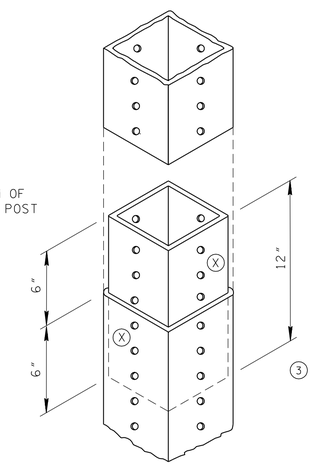
(I) CLASS "A" CONCRETE FOOTING SHALL BE PLACED ONLY ON UNDISTURBED MATERIAL OR IN FILL MATERIAL PLACED BY CONTROLLED COMPACTION AT DEPTHS UNAFFECTED BY FROST.

(J) MATERIALS SURROUNDING FOOTING SHALL BE CAPABLE OF CARRYING A MINIMUM BEARING OF 2500 POUNDS PER SQUARE FOOT. WHERE SOLID ROCK IS ENCOUNTERED, FOOTING SHALL BE FOUR FEET AS SHOWN IN DETAILS OR EXTEND A MINIMUM OF TWO FEET INTO THE ROCK.

(K) THE ANCHOR SHALL BE DRIVEN BEFORE THE ANCHOR SLEEVE OR THE ANCHOR/ANCHOR SLEEVE SHALL BE DRIVEN TOGETHER.

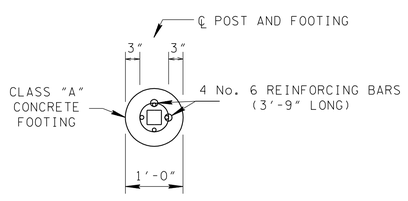


CLASS "A" CONCRETE FOOTING DETAIL
TYPE 4 FOOTING



PERMISSABLE FIELD SPLICE

NOTE: A MAXIMUM OF ONE SPLICE IS ALLOWED PER POST. CONNECTION SHALL BE MADE WITH TWO ⅜" DRIVE RIVETS WITH FLAT WASHERS. DRIVE RIVETS TO BE LOCATED ON ADJACENT SIDES OF POST AS INDICATED BY (X) IN ORDER TO PROVIDE A TIGHT CONNECTION.



SECTION A-A

FOOTNOTES

(1) FOR STANDARDIZATION OF LOCATION AND LATERAL CLEARANCE SEE SUBSECTIONS 2A-21 (PAGE 2A-8) AND 2A-24 (PAGE 2A-10 AND 2A-11) OF THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

(2) FOR HEIGHT SEE SUBSECTION 2A-23 (PAGE 2A-9 AND 2A-10) OF THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

(3) WHEN TYPE 4 FOOTING IS REQUIRED AS SHOWN ON SIGN SCHEDULE THE MINIMUM DEPTH OF SUPPORT POST WILL BE 2'-0".

(4) IF ROCK IS ENCOUNTERED DURING THE INSTALLATION OF SUPPORT POSTS, THE HOLES FOR THE SUPPORTS SHALL BE DRILLED TO PROVIDE THE MINIMUM 3'-0" DEPTH IN GROUND.

(5) THE SUPPORT POST SHALL BE EITHER FLUSH OR HALF-INCH DOWN FROM THE TOP OF THE SIGN FACE.

(6) SEE SIGN SCHEDULE SHEET IN THE PLANS FOR DIMENSIONS L, H, H1, H2, AND W.

(7) A 3" SQUARE TUBE COMBINATION ANCHOR/ANCHOR SLEEVE SHALL BE REQUIRED WHEN A 2½" SUPPORT POST IS USED.

(8) THE SUPPORT POST MUST BE PLACED 12" IN LIEU OF 6" INSIDE THE COMBINATION ANCHOR/ANCHOR SLEEVE WHEN 2½" SUPPORT POST IS USED.

(9) THE POST IS TO BE FASTENED TO THE ANCHOR/ANCHOR SLEEVE WITH ONE 15/16" CORNER BOLT LOCATED IN THE CORNER AWAY FROM THE DIRECTION OF TRAFFIC.

(10) THE ANCHOR SLEEVE IS NOT REQUIRED WHEN USING A 14 GAGE POST. THE ANCHOR WILL SERVE AS A COMBINATION ANCHOR/ANCHOR SLEEVE.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD GROUND MOUNTED SIGN USING PERFORATED/ KNOCKOUT SQUARE TUBE

5-14-74 | T-S-17