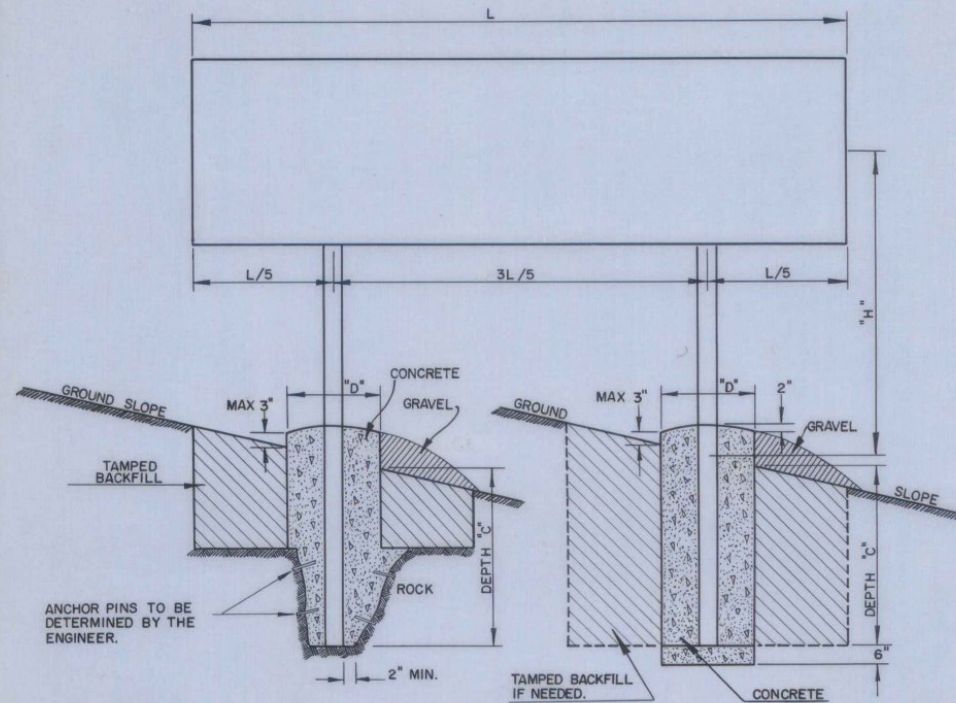


POSTS AND TYPE "A" FOOTINGS FOR TWO-POST MOUNTING

* IF "S" IS EQUAL TO OR LESS THAN	STEEL POST SIZE	ALUMINUM POST SIZE	DEPTH "C"	DIAMETER "D"
380	4 I 7.7	4" X 3.3 LBS.	5'-0"	12"
420	4 I 9.5	5" X 3.4 LBS.	5'-0"	12"
585	5 I 10.	6" X 4.3 LBS.	5'-0"	12"
820	4 WF 13	6" X 5.1 LBS.	5'-0"	12"
930	6 BL 12	7" X 5.3 LBS.	5'-0"	12"
1480	6 WF 15.5	9" X 7.5 LBS.	5'-0"	18"
1770	8 WF 17	9" X 7.5 LBS.	5'-6"	18"
2550	10 WF 21	12" X 10.9 LBS.	6'-3"	18"
			5'-6"	24"
3190	10 WF 25	12" X 12.1 LBS.	7'-3"	18"
			6'-0"	24"
3950	12 WF 27	12" X 14.1 LBS.	6'-9"	24"
			5'-9"	30"
4620	12 WF 31	12" X 17.3 LBS. (LIMIT S=4430)	7'-0"	24"
			6'-3"	30"
5420	12 WF 36	NONE	7'-9"	24"
			6'-9"	30"
			6'-0"	36"
6820	12 WF 40	NONE	8'-6"	24"
			7'-6"	30"
			6'-9"	36"

* FOR THREE-POST MOUNTING INCREASE ALLOWABLE "S" BY 50% AND USE SAME SIZE POSTS AND FOOTINGS



TYPE "A" FOOTINGS

CONSTRUCTION METHODS:

Holes for post footings may be augered or dug. If the material is firm, the hole may be left with earth sides; if not, a suitable form approved by the engineer shall be used. Corrugated metal culvert pipe, or paper forms manufactured for use as concrete column forms, will be acceptable. First excavate hole and pour concrete base. A solid concrete block properly embedded in wet concrete may be substituted as a base. Then secure the post in position, plumbed and properly braced, before pouring the footing. The time between pours for the curing of the concrete shall be as determined by the engineer. The form shall be left in place and the hole properly backfilled. No part of the form shall show above the ground line when the work is completed. If a three post mounting is used, the spacing shall be L/6, 2L/6, 2L/6 and L/6.

Around the footing shall be built up with gravel and rounded off so that none of the concrete is above the ground more than 3"

GENERAL NOTES

DESIGN CRITERIA:

S = AH
A = SIGN AREA IN SQUARE FEET.
H = GROUND ELEVATION OF LONGEST LEG TO CENTER-HEIGHT OF SIGN.

WIND LOAD = 25 POUNDS PER SQUARE FOOT AS RECOMMENDED BY THE A.S.S.H.O. SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS ADOPTED JUNE 12, 1961

BASIC POST DESIGN STRESS = 17,000 POUNDS PER SQUARE INCH, FOR ALUMINUM 20,000 POUNDS PER SQUARE INCH, FOR STEEL.

MAXIMUM EARTH PRESSURE = ONE TON PER SQUARE FOOT.

TABLES BASED ON RUTLEDGE CHART FOR EMBEDMENT OF POSTS WITH OVERTURNING LOADS.

SPECIFICATIONS:

ALL MATERIALS AND WORKMANSHIP SHALL BE AS SPECIFIED UNDER "TRAFFIC SIGNS", ITEM 701.

THE CONCRETE USED FOR TYPE "A" FOOTINGS SHALL CONFORM TO THE REQUIREMENTS OF "CONCRETE CLASS B", ITEM 401-B

THE BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF "GRANULAR BORROW", ITEM 105, OR AS APPROVED BY THE ENGINEER.

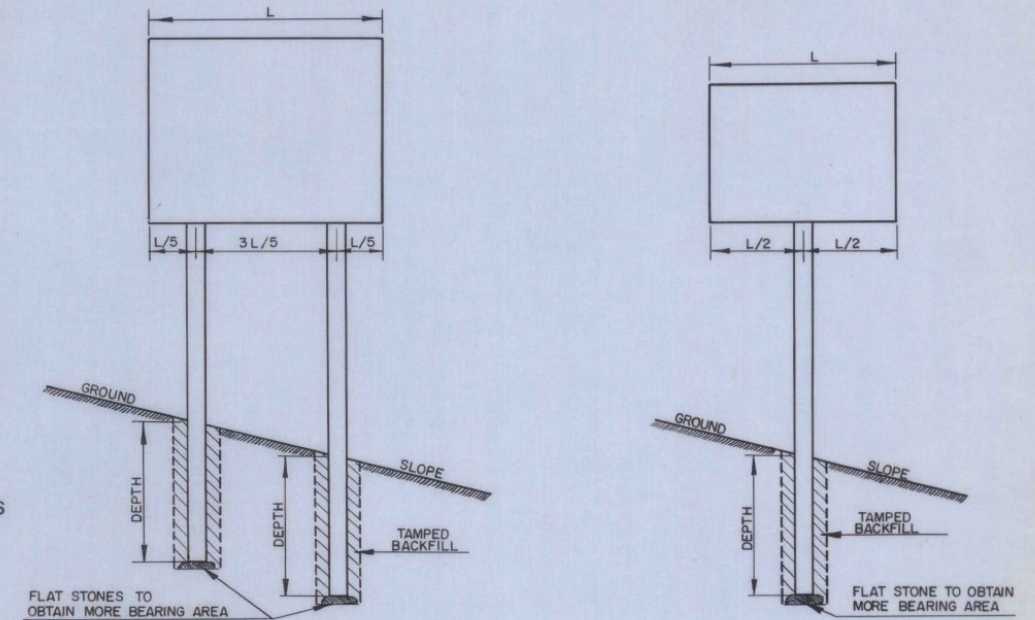
ALL STRUCTURAL STEEL TO BE A.S.T.M. A 36, UNLESS OTHERWISE NOTED. WHEN RAIL STEEL IS SPECIFIED, THE MINIMUM YIELD SHALL BE 50,000 PSI.

ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964.

SIGN SUPPORTS DESIGNED ACCORDING TO A. A. S. H. O. PUBLICATION "A SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS".

ALL ROLLED OR EXTRUDED ALUMINUM SHAPES SHALL BE ALUMINUM ALLOY 6061-T6

THE BASIC POST DESIGN STRESS SHALL BE INCREASED BY 45% FOR COMBINATION DEAD LOAD AND WIND LOAD.

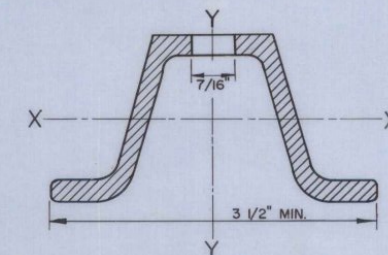


TYPE "B" FOOTINGS

POSTS AND TYPE "B" FOOTINGS FOR ONE AND TWO-POST MOUNTING

IF "S" IS EQUAL TO OR LESS THAN

ONE POST	TWO POST	STEEL POST SIZE	ALUMINUM POST SIZE	MIN. DEPTH IN GROUND
290	600	4 WF 13	6" X 4" X 4.2 LBS.	6.5
240	490	4 WF 13	6" X 4" X 4.2 LBS.	6.0
230	460	6 BJ 8.5	6" X 4" X 4.2 LBS.	6.0
210	420	6 BJ 8.5	6" X 4" X 4.2 LBS.	5.5
190	390	5 I 10	5" X 4.2 LBS.	6.0
165	340	5 I 10	5" X 4.2 LBS.	5.5
155	330	4 I 7.7	4" X 3.3 LBS.	6.0
135	280	4 I 7.7	4" X 3.3 LBS.	5.5
110	230	4 I 7.7	4" X 3.3 LBS.	5.0
90	210	* 4" X 3 1/2" X 5/16" L	* 5" X 3 1/2" X 5/16"	4.0
55	140	* FLANGED CHANNEL	* 4" U 3.32 LBS.	3.5
45	115	* FLANGED CHANNEL	* 4" U 3.32 LBS.	3.0



FLANGED CHANNEL
MATERIALS - RAIL STEEL OR A.S.T.M. A242 STEEL
WEIGHT - 4.0 LBS. PER FOOT
S_{xx} = 0.58 IN² MINIMUM
S_{yy} = 0.61 IN² MINIMUM

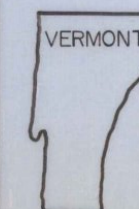
* THE FLANGED CHANNELS, U CHANNELS, AND ANGLES, SHALL HAVE 36 HOLES 7/16 DIAM., 2" CENTER TO CENTER ON THE FACE, STARTING ONE INCH FROM THE TOP FOR MOUNTING THE SIGNS.

REVISIONS AND CORRECTIONS
MAR. 7, 1966... BASIC POST DESIGN STRESS INCREASED BY 45% AND TABLES REVISED.
OCT 19, 1967... ROUNDING OF GRAVEL AROUND FOOTING ADDED.

APPROVED DEC 18, 1964 DATE
G. W. Lane HIGHWAY ENGINEER
A. W. Coleman TRAFFIC ENGINEER
A. P. Bishop CHIEF ENGINEER
R. H. Arnold ASST. CHIEF ENGINEER
E. F. Stebbins CONSTRUCTION ENGINEER

DESIGNED: SMITH-PIRIE
DRAWN: J. H. W.
TRACED: A. J. A.

TRAFFIC SIGNS
GROUND MOUNTED SIGN SUPPORTS



DEPARTMENT OF HIGHWAYS
STANDARD

E-21