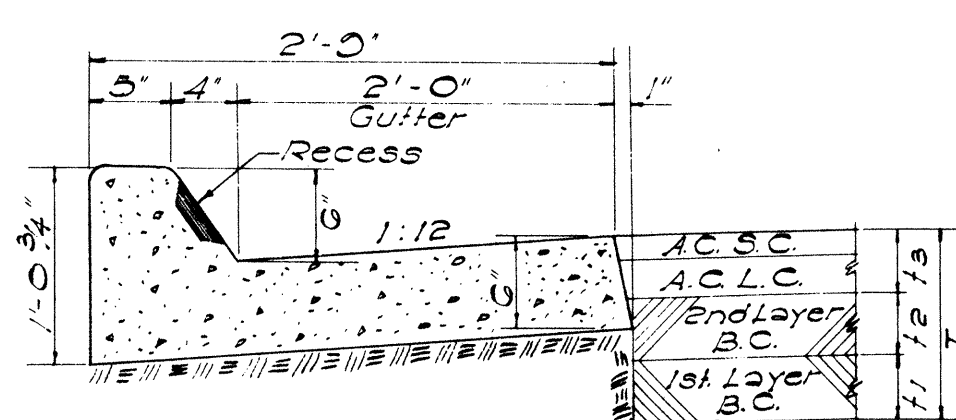
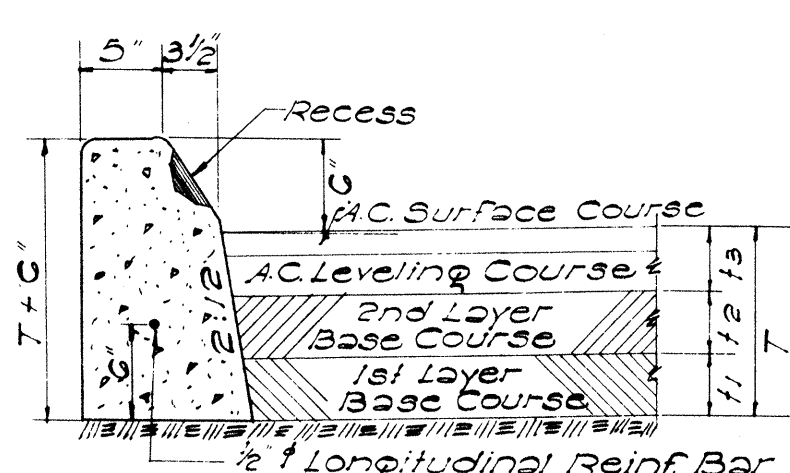


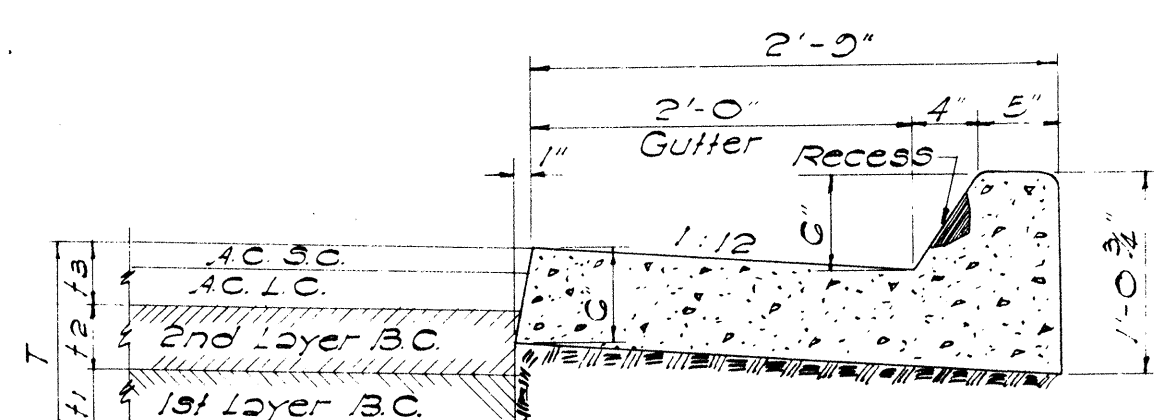
TYPE "A" & "B" CURB  
 SCALE: 1" = 1'-0"



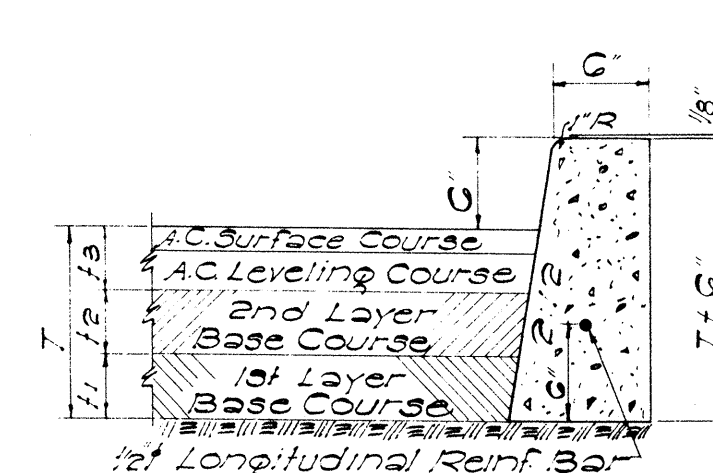
TYPE "AG" & "BG" CURB & GUTTER  
 SCALE: 1" = 1'-0"



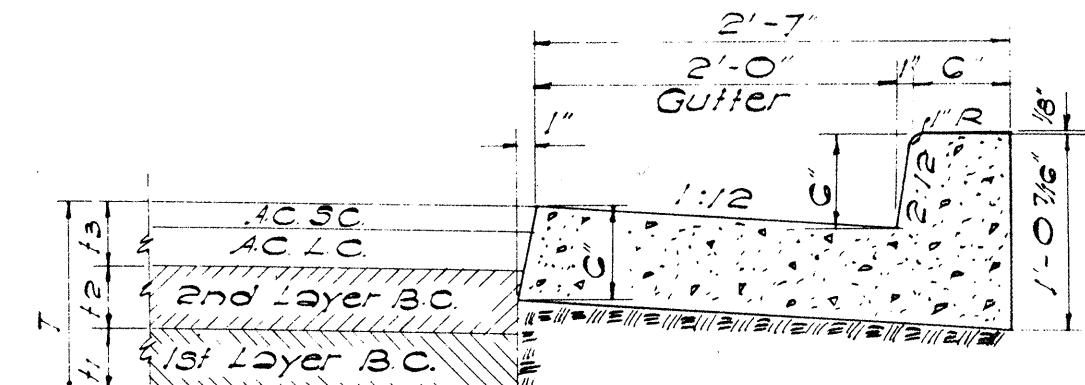
TYPE "C" CURB  
 SCALE: 1" = 1'-0"



TYPE "CG" CURB & GUTTER  
 SCALE: 1" = 1'-0"

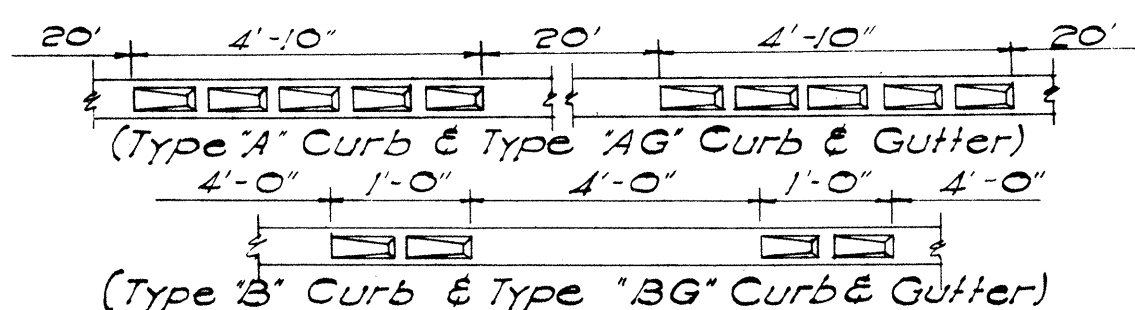


TYPE "D" CURB  
 SCALE: 1" = 1'-0"

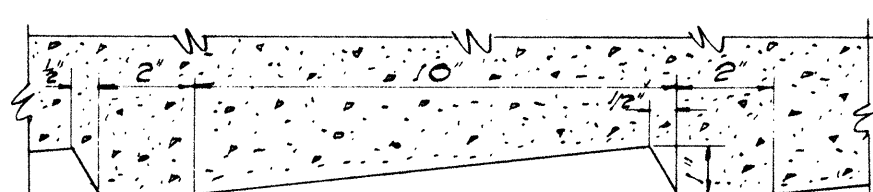


TYPE "DG" CURB & GUTTER  
 SCALE: 1" = 1'-0"

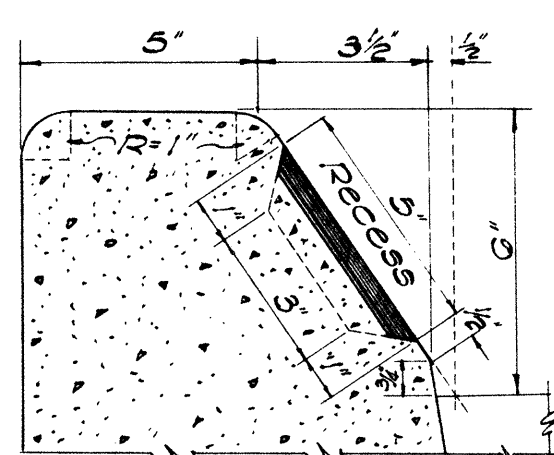
General Note Covering All Types of Curbs:  
 Occasionally curb rests on first layer of base course. See typical sections.



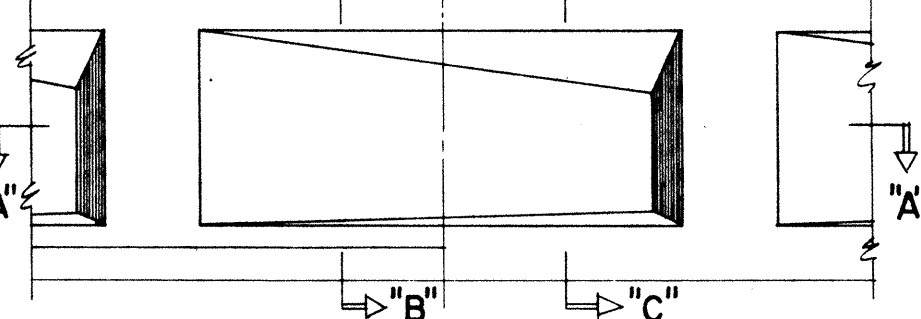
TYPE AND SPACING OF RECESSES



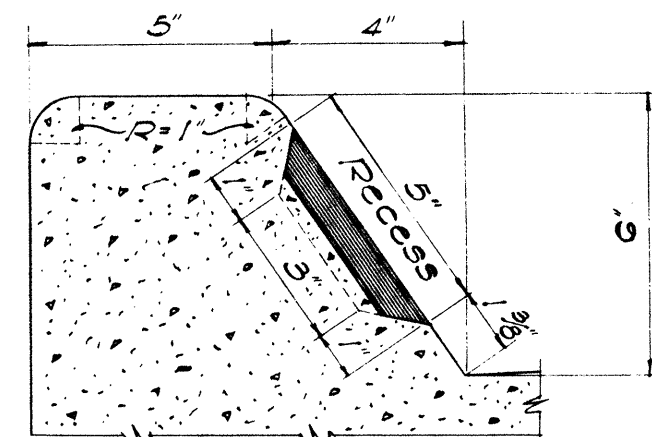
SECTION "A-A"



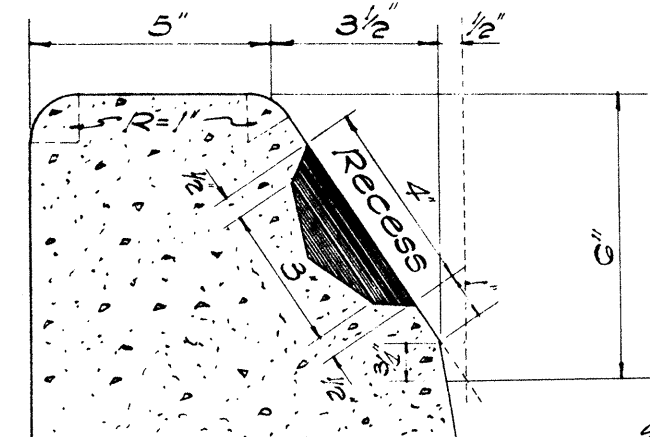
SECTION "B-B"  
 TYPE "A" & "B" CURB



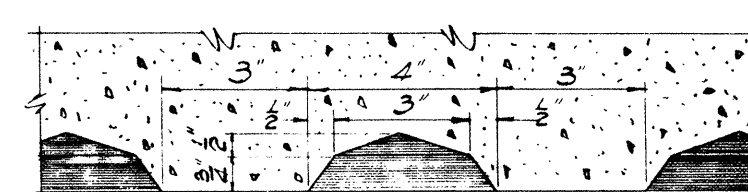
ELEVATION  
 SCALE: 3" = 1'-0"



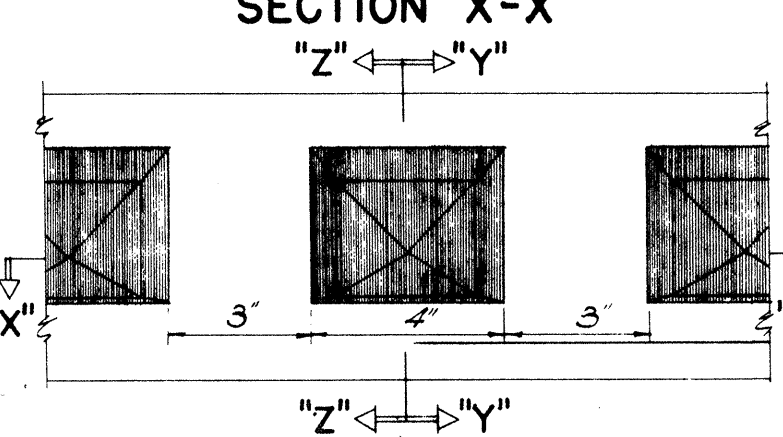
SECTION "C-C"  
 TYPE "AG" & "BG" CURB



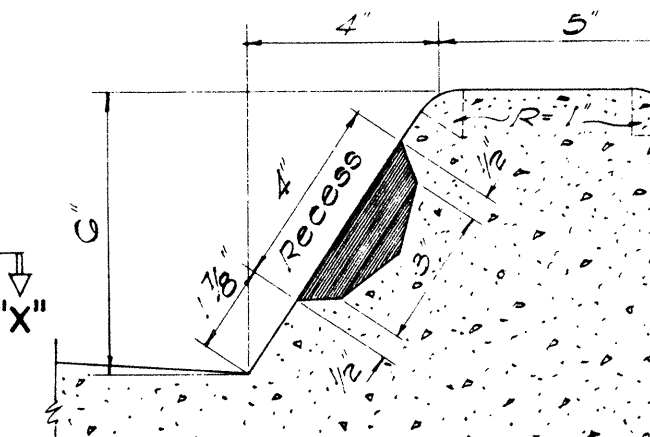
SECTION "Y-Y"  
 TYPE "C" CURB



SECTION "X-X"

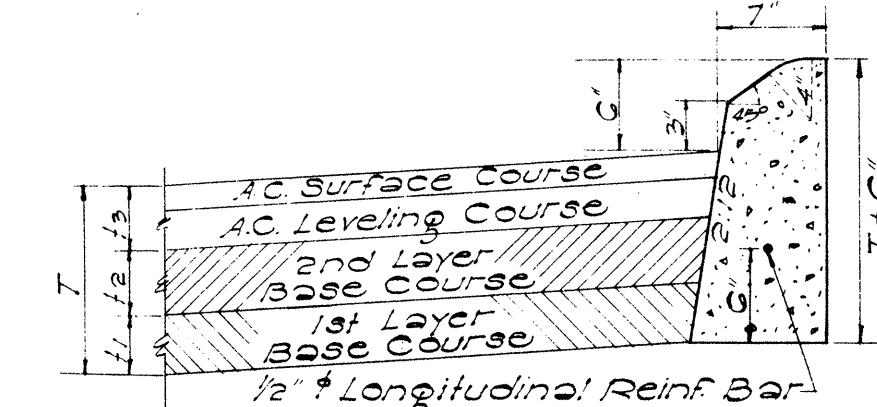


ELEVATION  
 SCALE: 3" = 1'-0"



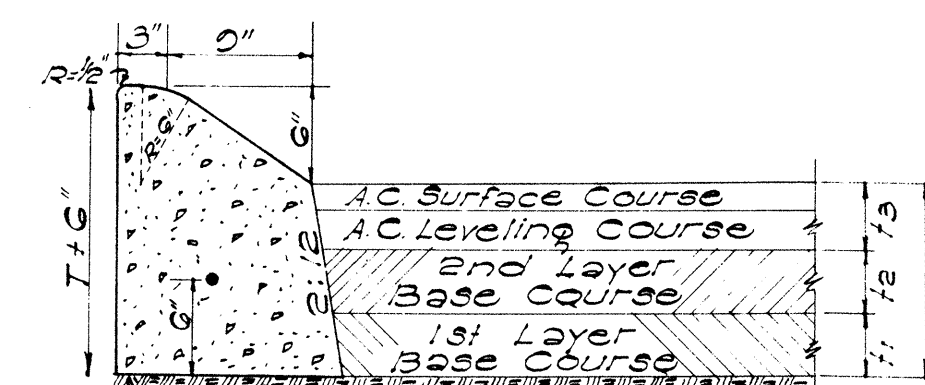
SECTION "Z-Z"  
 TYPE "CG" CURB

- NOTES:  
 1) Types "AG", "BG", "CG", "DG" and "EG" Concrete Curbs and Gutters are to be poured monolithically.  
 2) Types "A", "B", and "C" Curbs and Types "AG", "BG", and "CG" Curbs and Gutters occur at Median Strips and Traffic Islands.  
 3) Shaded area in Curbs are to be painted with an approved white lacquer. (One Coat)  
 4) All Conc. Curbs and Gutters shown herein are to be of Class "A-1" Conc. and Cast-in-Place.

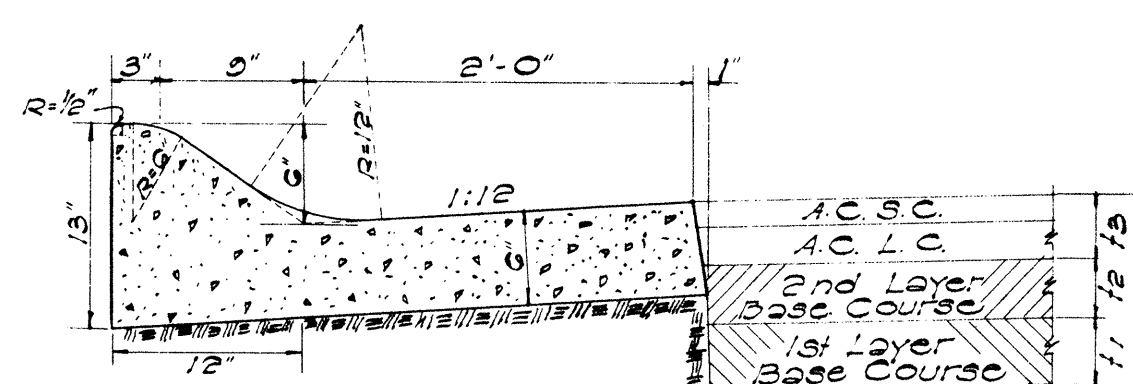


TYPE "F" CURB  
 SCALE: 1" = 1'-0"

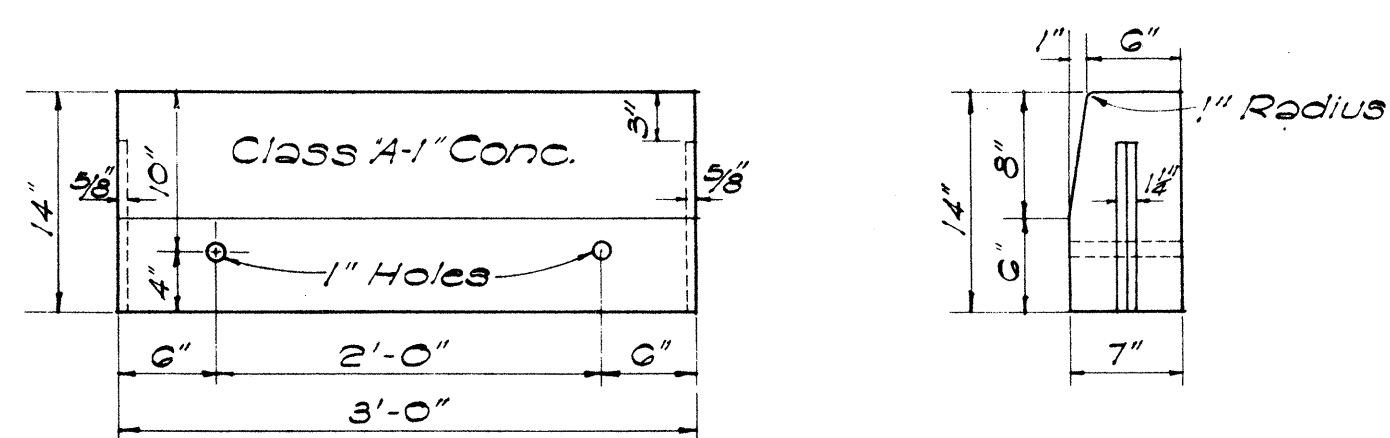
## DETAILS OF CAST-IN-PLACE CONC. CURBS AND GUTTERS



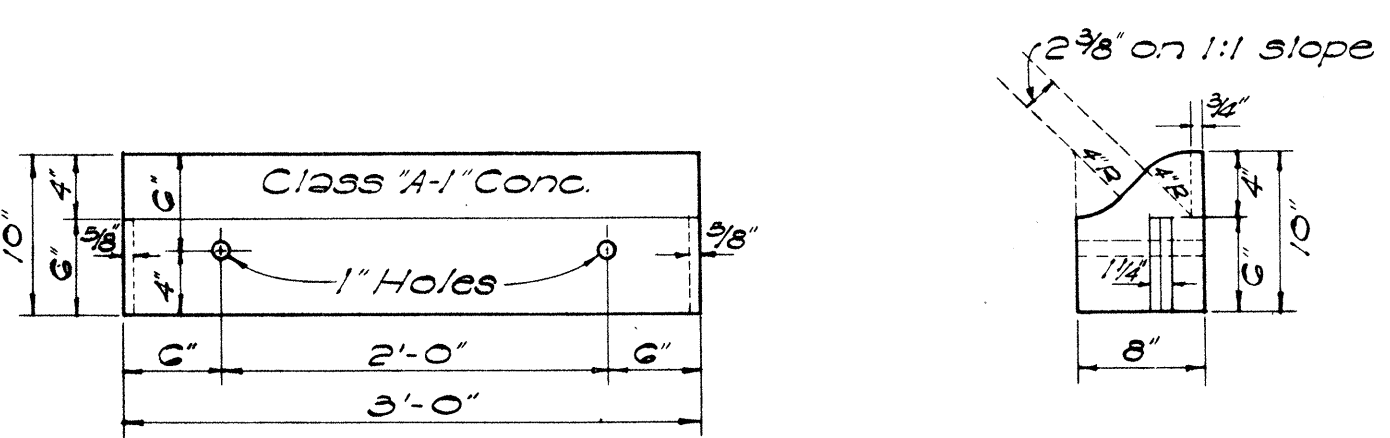
TYPE "E" CAST-IN-PLACE CONCRETE CURB  
 SCALE: 1" = 1'-0"



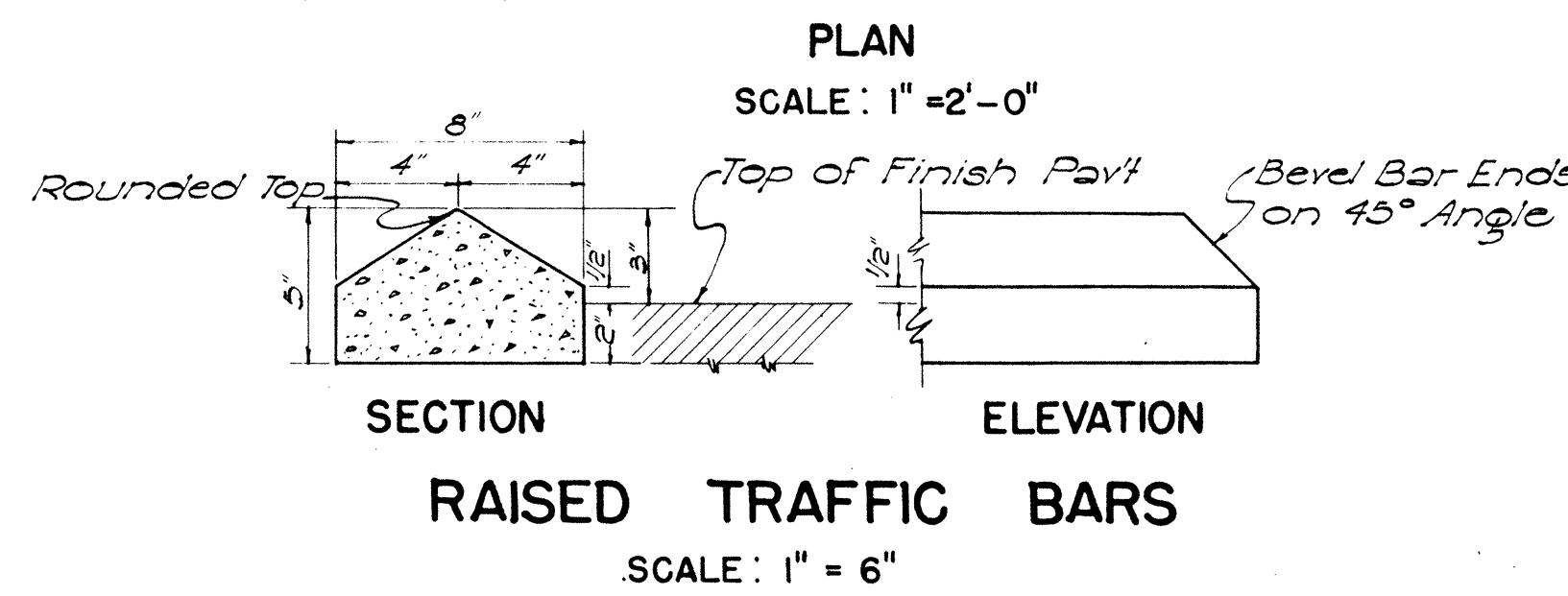
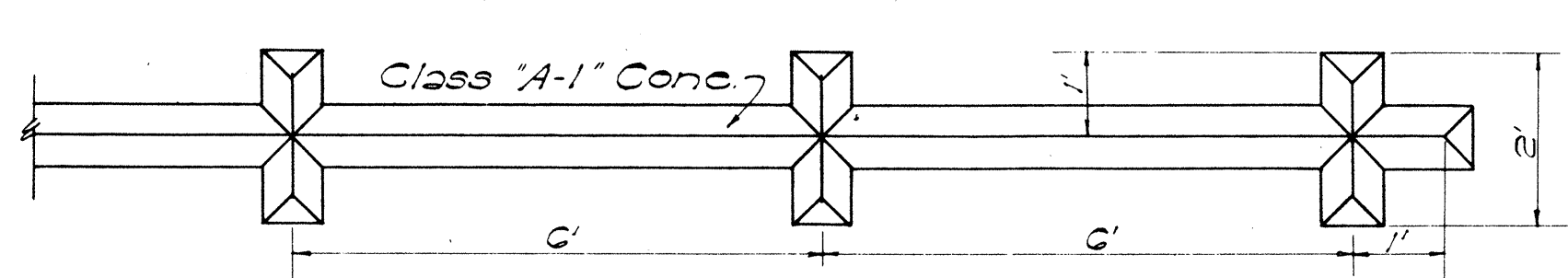
TYPE "EG" CAST-IN-PLACE CONC. CURB & GUTTER  
 SCALE: 1" = 1'-0"



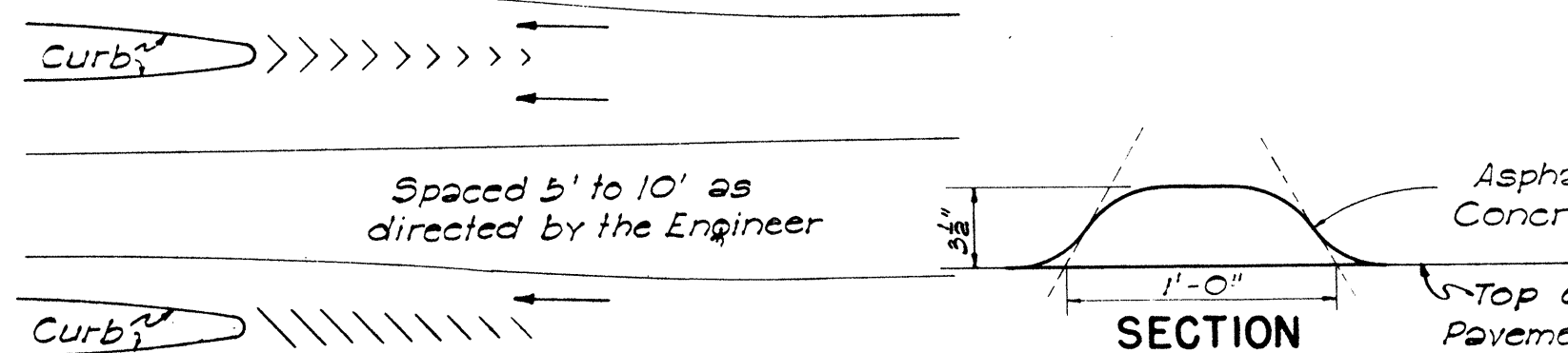
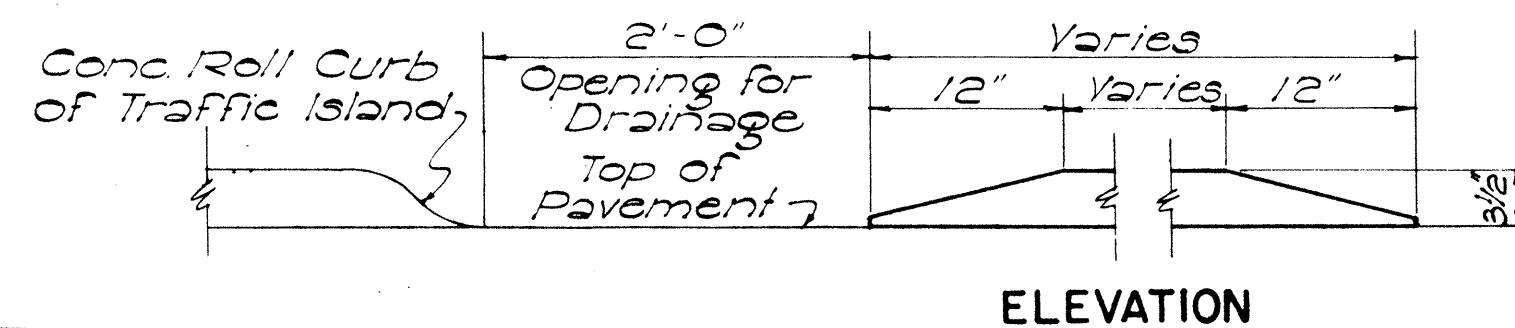
FRONT ELEV. END ELEV.  
 PRECAST CONC. CURB  
 SCALE: 1" = 1'-0"



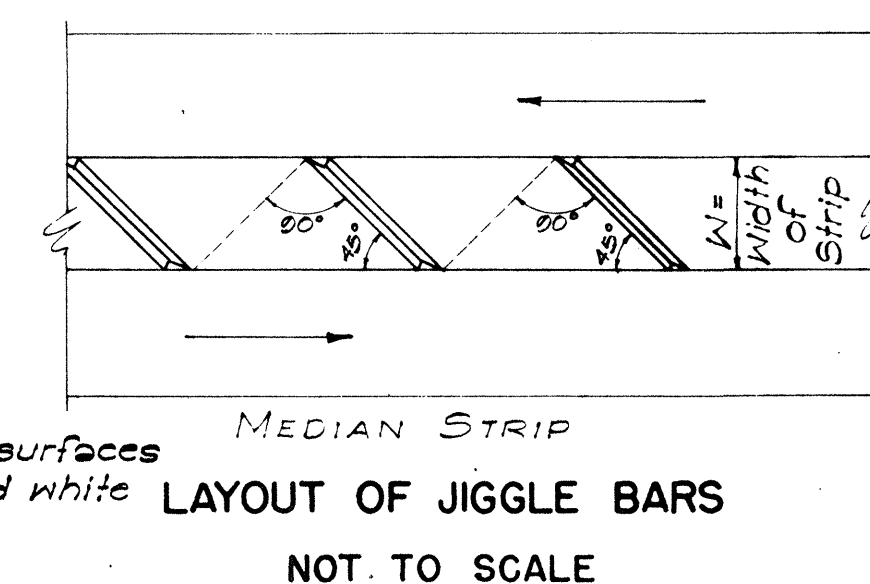
FRONT ELEV. END ELEV.  
 PRECAST CONC. ROLL CURB  
 SCALE: 1" = 1'-0"



NOTE: Section and Elevation for Jiggle Bars are same as the Traffic Bars.  
 RAISED TRAFFIC BARS  
 SCALE: 1" = 6"  
 RAISED JIGGLE BARS  
 SCALE: 1" = 2'-0"



A.C. ROLL CURB  
 NOT TO SCALE



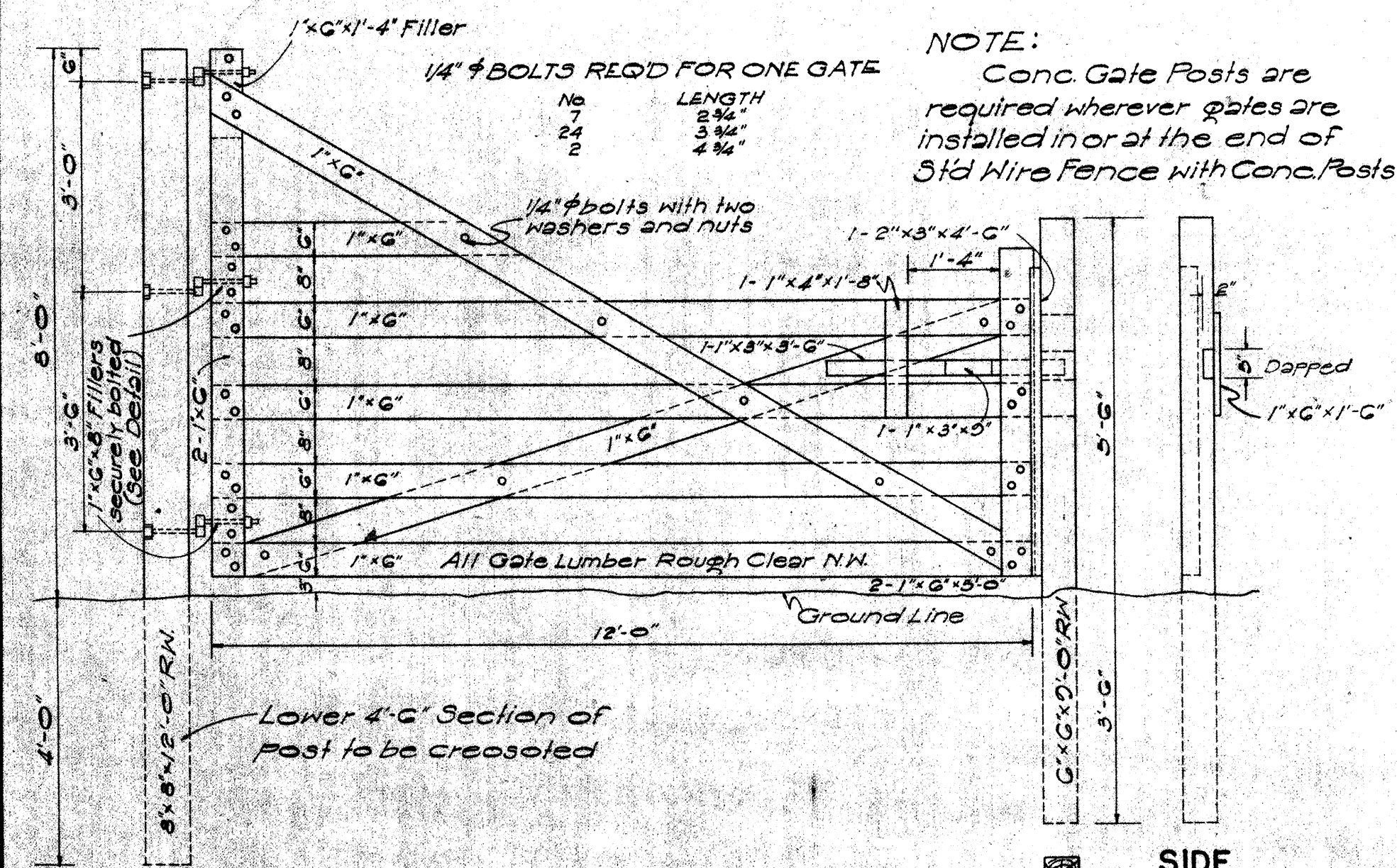
NOTE: Paint all exposed surfaces of bars with beaded white traffic lacquer.  
 LAYOUT OF JIGGLE BARS  
 NOT TO SCALE

APPROVED: DATE: 6-23-53  
 Territorial Highway Engineer

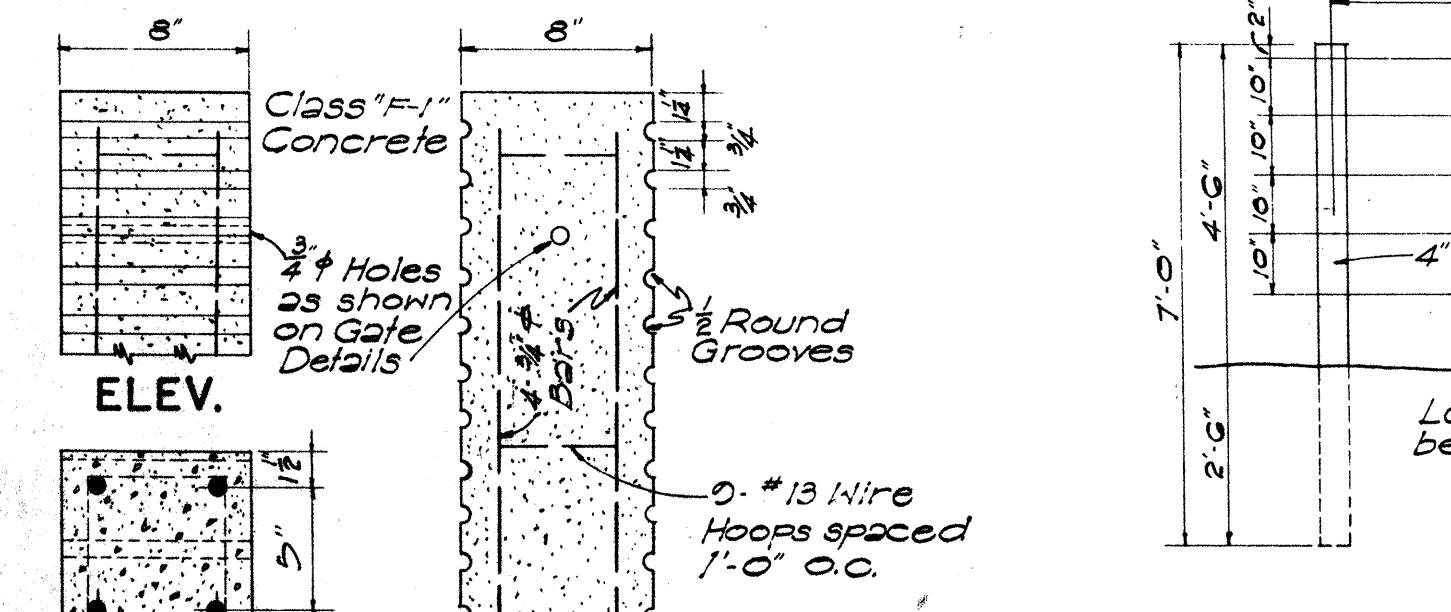
TERRITORIAL HIGHWAY DEPARTMENT  
 TERRITORY OF HAWAII  
 STANDARD DETAILS  
 CONCRETE CURBS,  
 CONCRETE CURBS & GUTTERS  
 SCALES AS NOTED

DATE: \_\_\_\_\_  
 SURVEY PLOTTED BY: \_\_\_\_\_  
 DESIGN BY: \_\_\_\_\_  
 TRACED BY: L. Calistro  
 QUANTITIES BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_

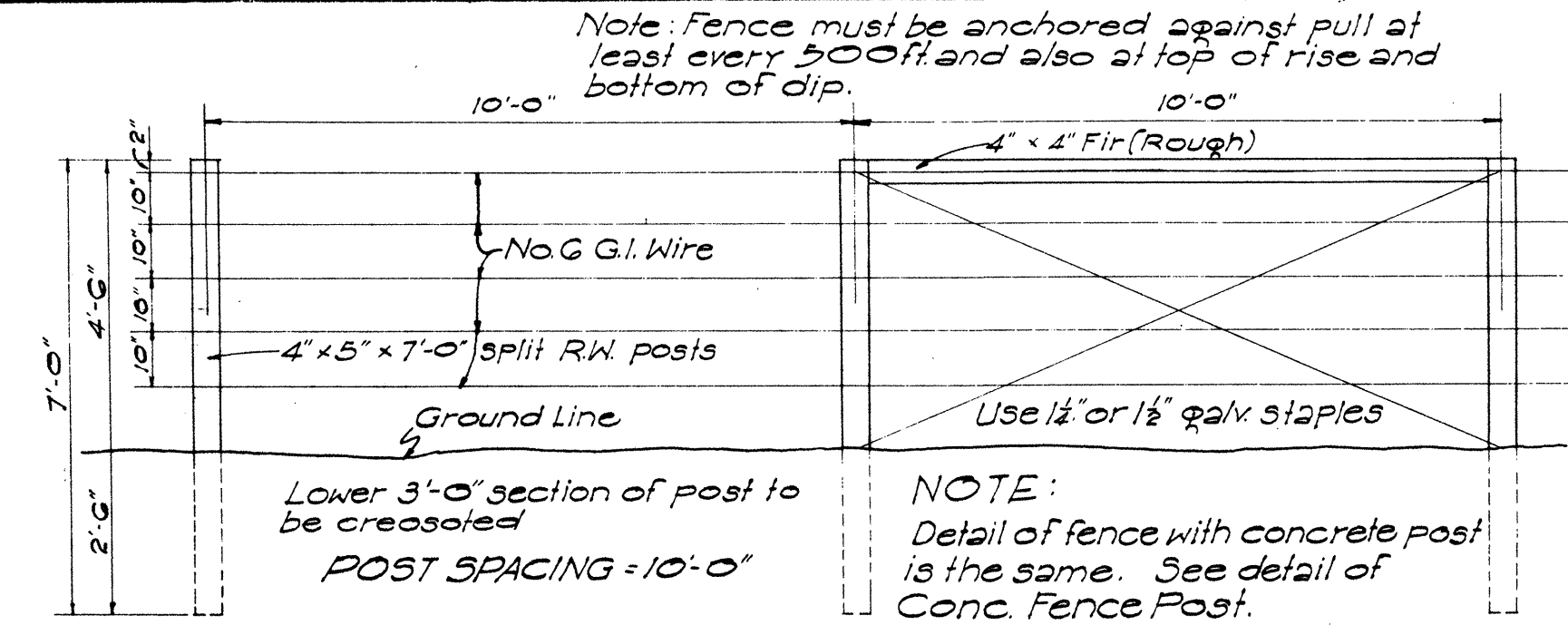
5697.7



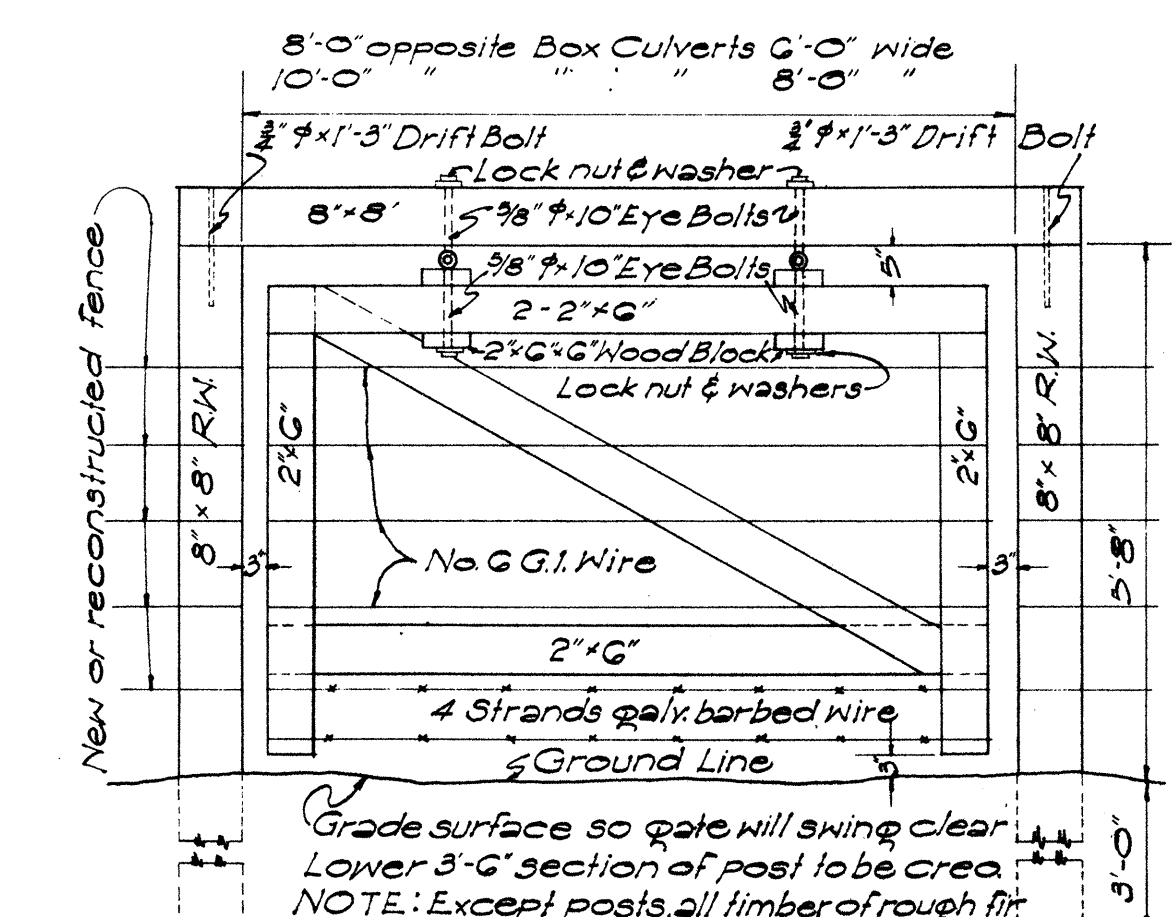
DETAIL OF CATTLE GATE  
Scale: 1/2" = 1'-0"



CONC. GATE POST  
Scale: 1-1/2" = 1'-0"



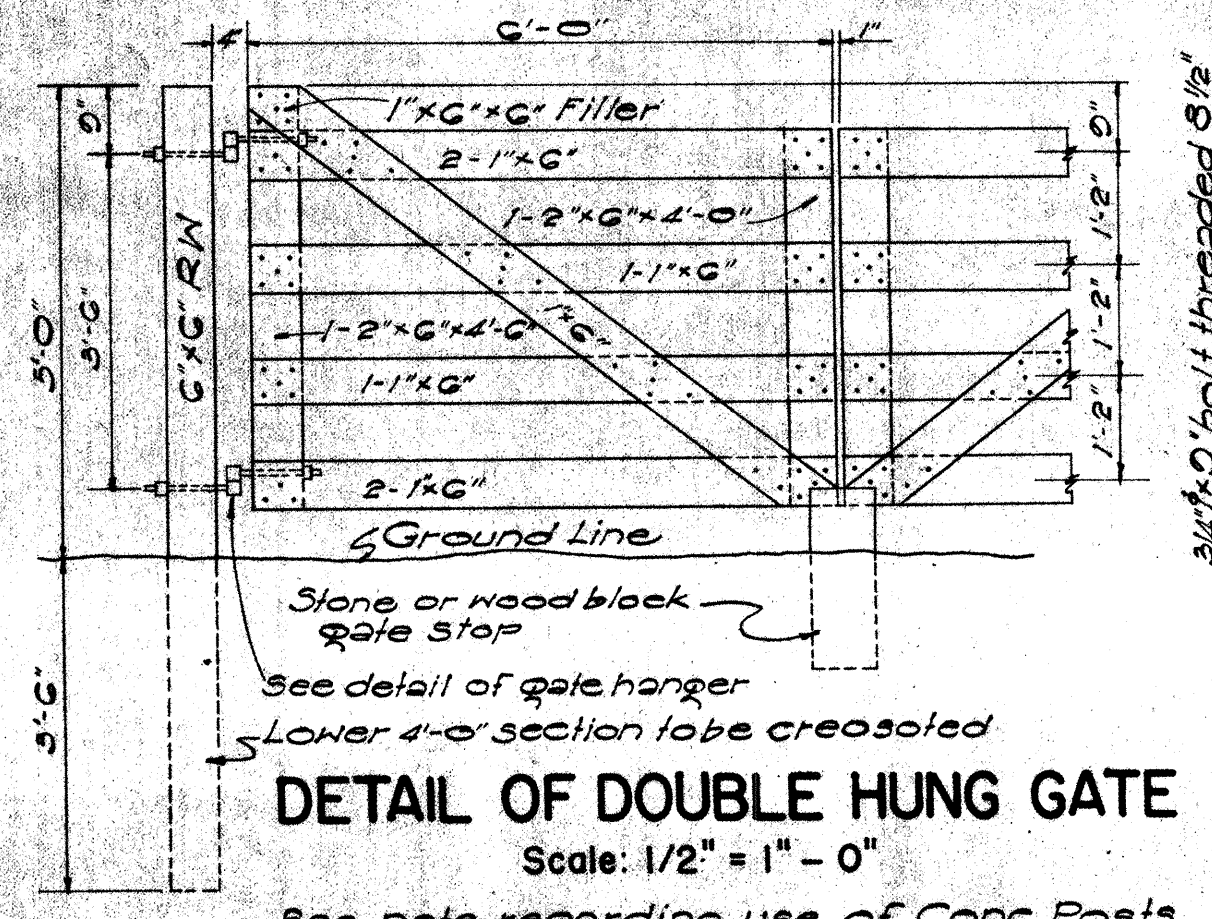
DETAILS OF STANDARD WIRE FENCE WITH WOOD POSTS  
Scale: 3/8" = 1'-0"



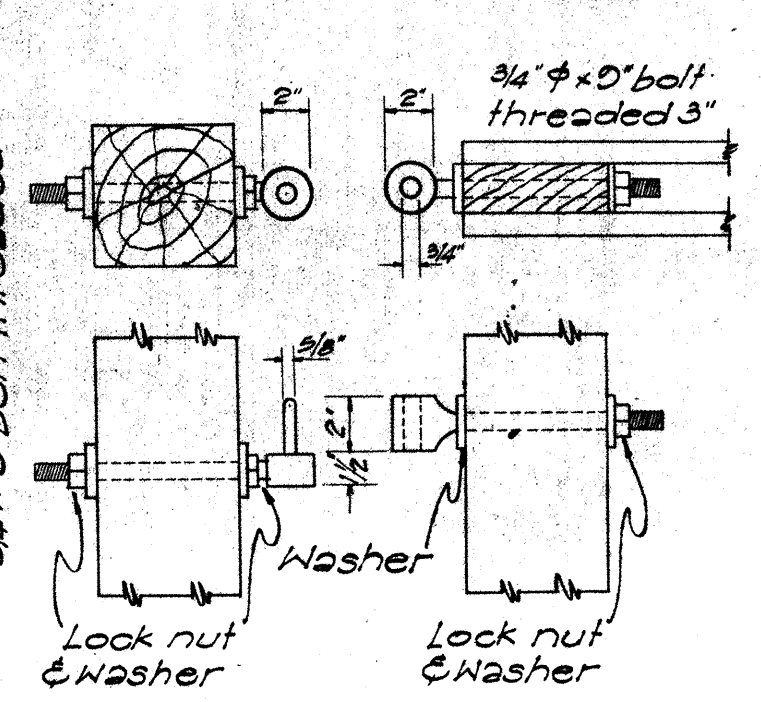
ELEVATION  
Scale: 1/2" = 1'-0"

LAYOUT SHOWING HURDLE PLACED BELOW CULVERT IN A POSITION WHICH WILL BE CATTLE TIGHT

DETAILS OF HURDLE



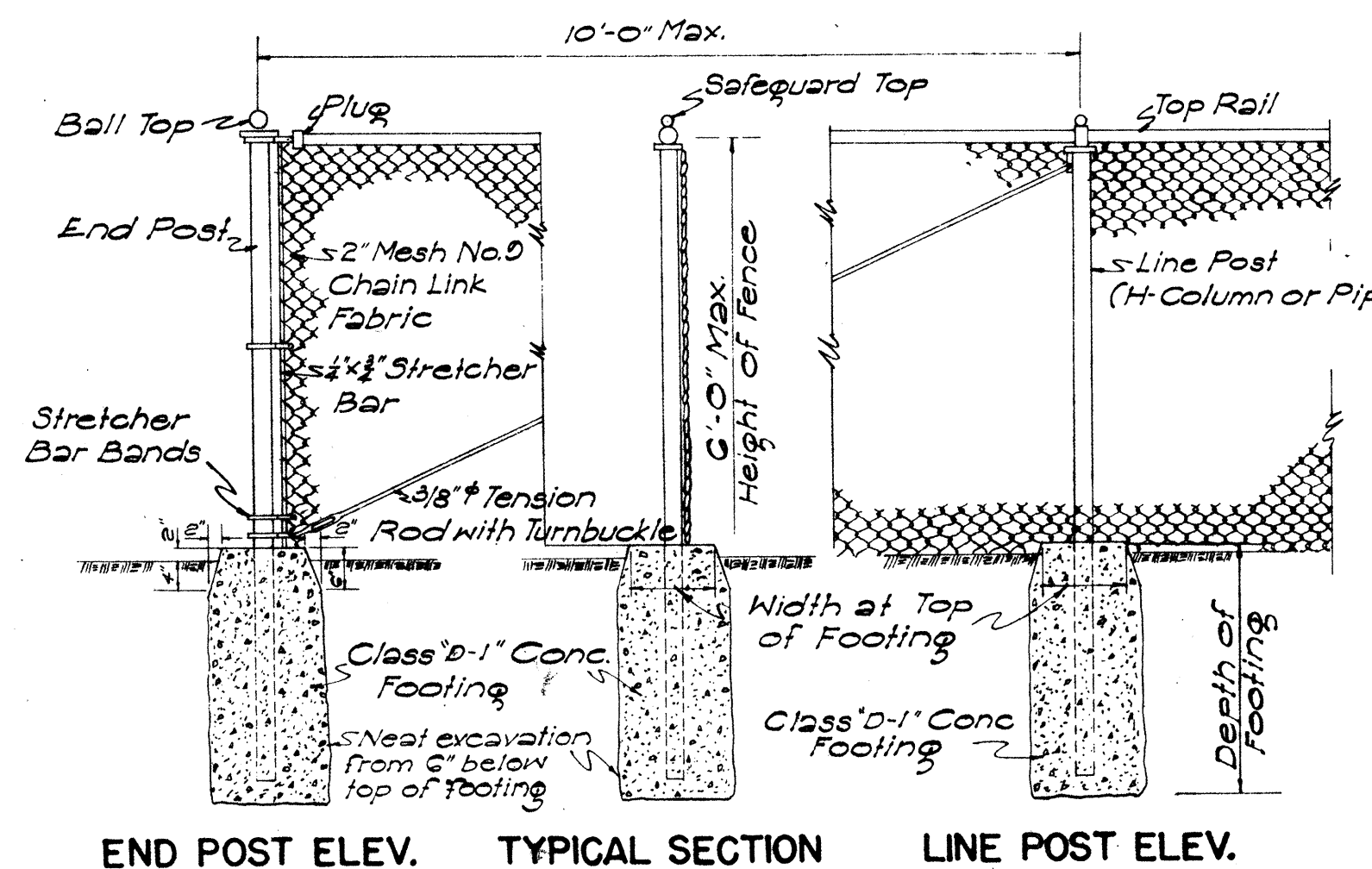
DETAIL OF DOUBLE HUNG GATE  
Scale: 1/2" = 1'-0"



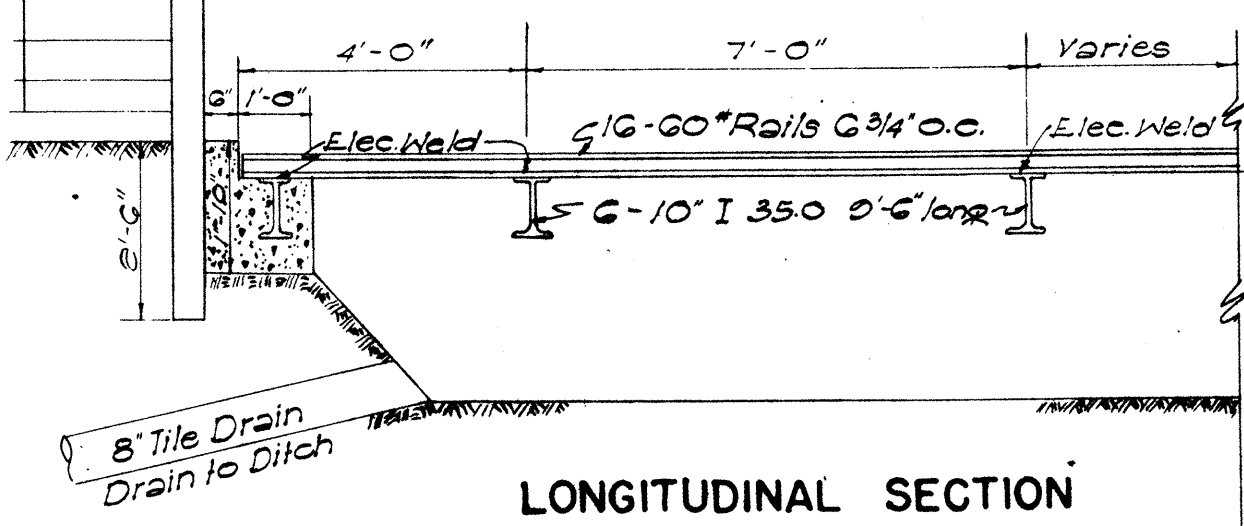
DETAIL OF GATE HANGER  
Scale: 1-1/2" = 1'-0"

SCHEDULE FOR CHAIN LINK FENCE

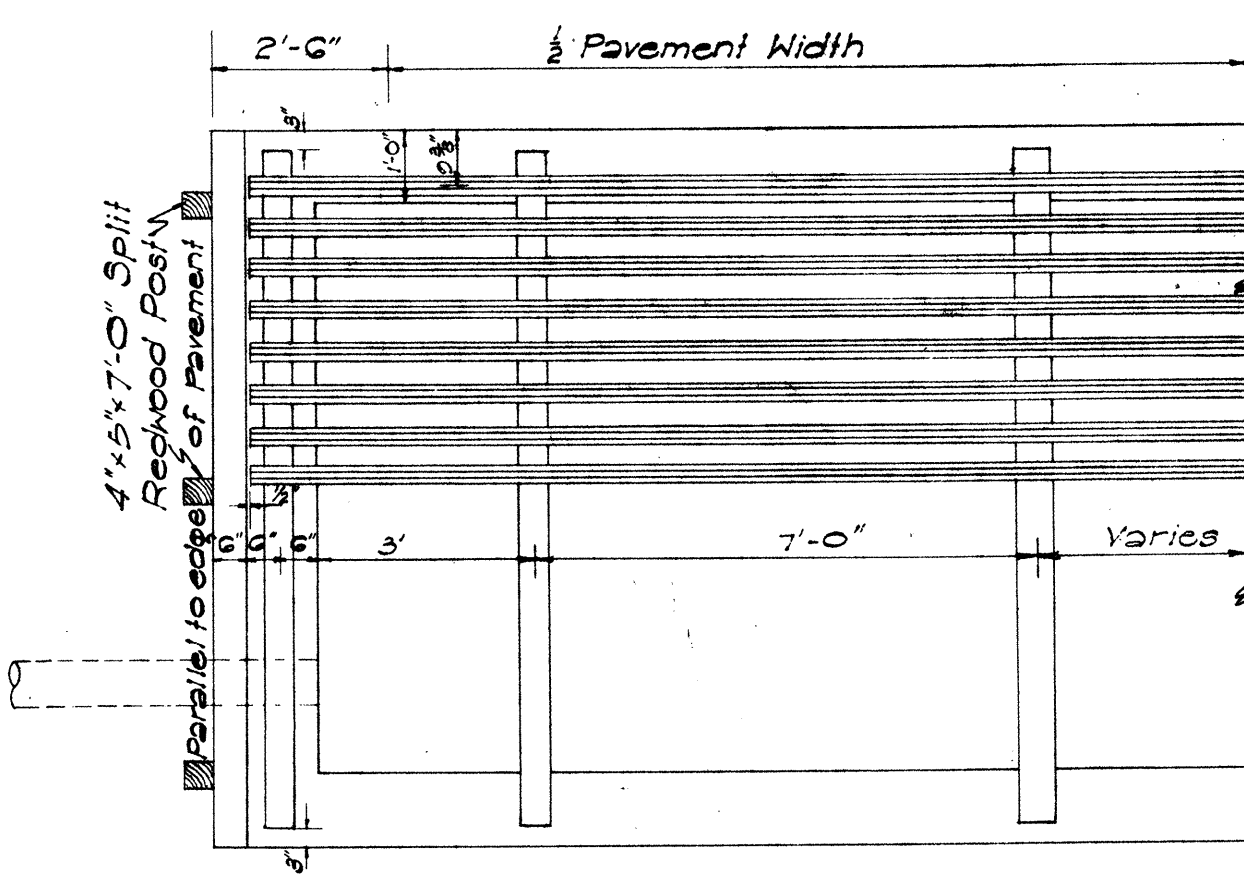
Height of Fence	Line Post	End Post	Top Rail	Depth of Footing	Top of Footing	Length of Posts
3'	1.875" R/W 1 1/2" O.D.	2" O.D.	1 1/2" O.D.	30" x 24"	8" sq.	5'-6" 5'-0"
4'	1.875" R/W 1 1/2" O.D.	2" O.D.	1 1/2" O.D.	30" x 24"	10" sq.	6'-6" 6'-0"
5'	1.875" R/W 1 1/2" O.D.	2 1/2" O.D.	1 1/2" O.D.	36" x 36"	12" sq.	8'-0" 8'-0"
6'	2.25" R/W 2 1/2" O.D.	3" O.D.	1 1/2" O.D.	36" x 36"	12" sq.	9'-0" 9'-0"



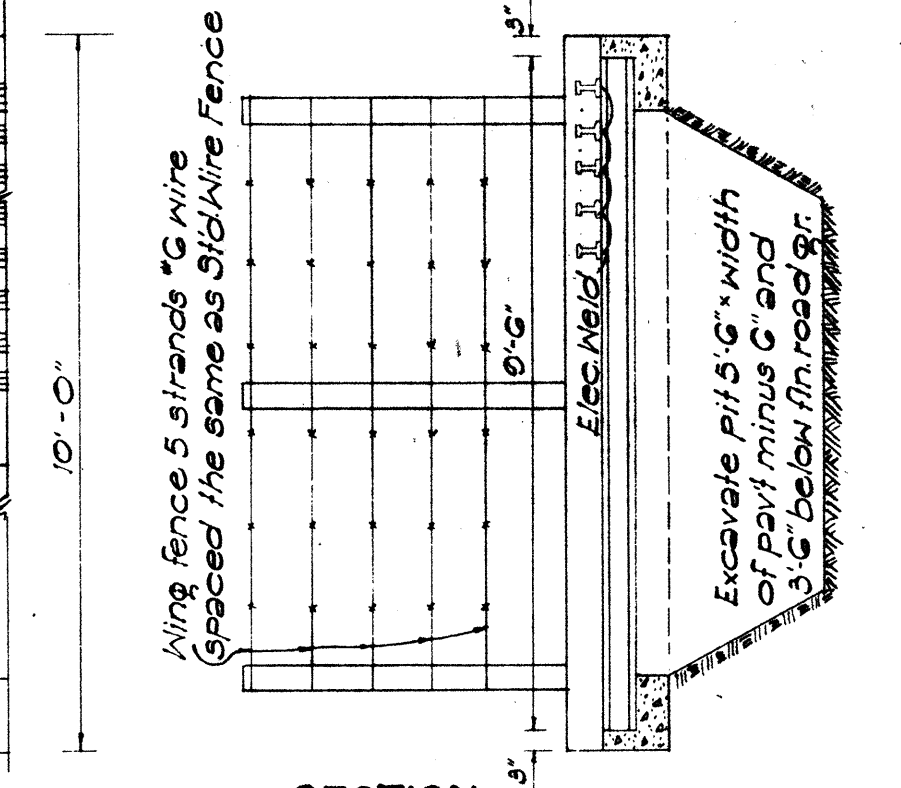
DETAIL OF CHAIN LINK FENCE  
Scale: 1/2" = 1'-0"



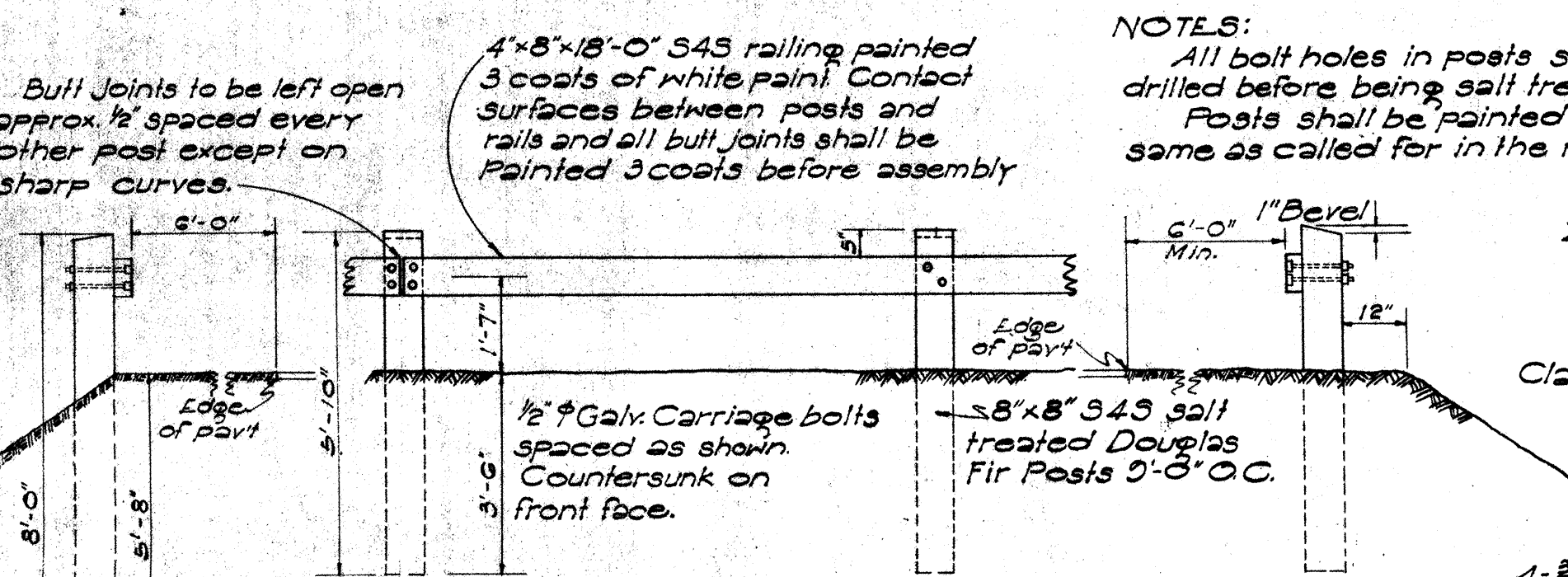
LONGITUDINAL SECTION



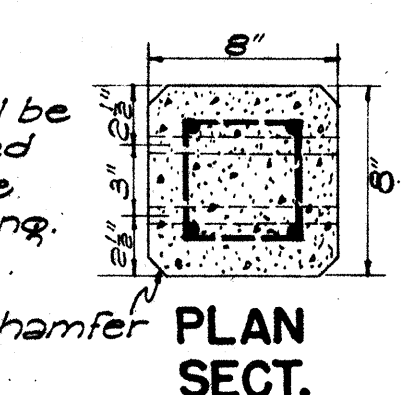
HALF SECTION



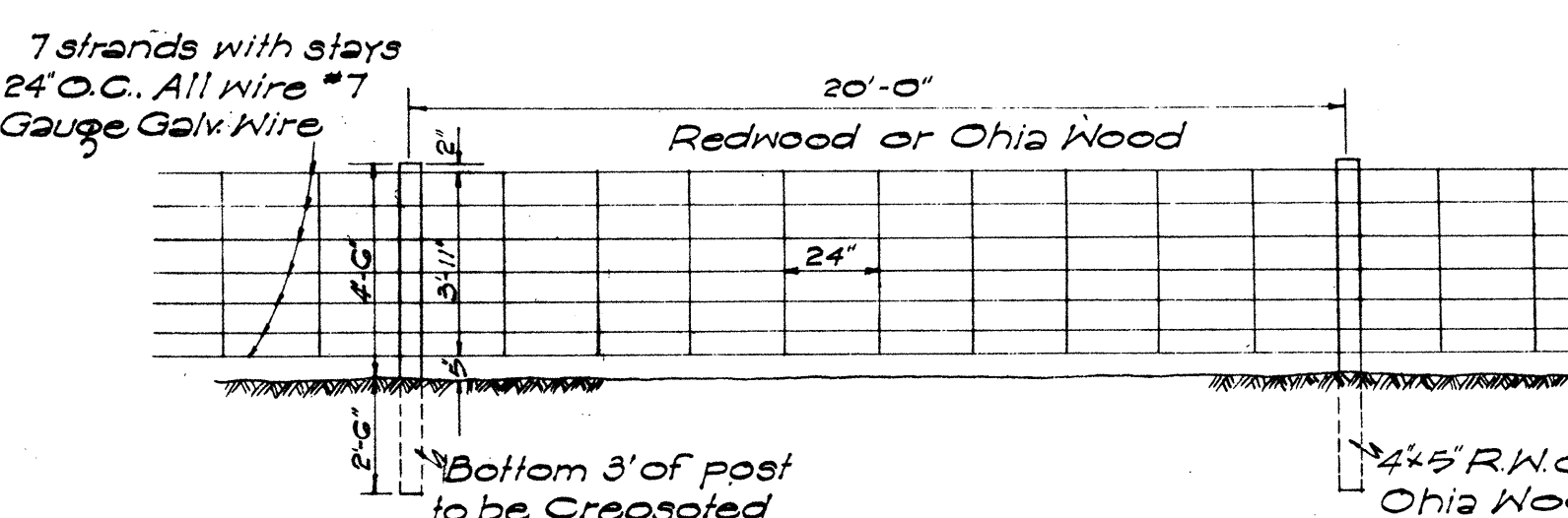
SECTION



WOOD GUARD RAIL WITH WOOD POSTS  
Scale: 3/8" = 1'-0"



DETAIL OF CONC. POST  
Scale: 1-1/2" = 1'-0"



DETAIL OF WOVEN WIRE FENCE  
Scale: 1/4" = 1'-0"

DETAIL OF CATTLE GUARD  
Scale: 3/8" = 1'-0"

NOTE: For Conc. Post see detail at right

GUIDE POSTS: Wood or Conc. Guide Posts are the same as those used for Wood Guard Rail spaced as shown on plans.

NOTE: This Project requires Std Wire Fence with 10' post spacing (if spacing is not indicated above use 10' ft)

NOTE: Contractor may either cast holes for fastening fence wire or cast post with 3/4" ground grooves on 2 sides.

NOTE: Position in relation to 12' in front of each separate property must be secured from the Engineer. Use above detail for end post.

NOTE: Use above detail for end post.

NOTE: Excavate pit 5' x 5' x 3' below fin road gr.

APPROVED: DATE: 9-23-53  
 TERRITORIAL HIGHWAY ENGINEER

TERRITORIAL HIGHWAY DEPARTMENT  
 TERRITORY OF HAWAII  
 STANDARD DETAILS  
 FENCES, GATES, GUARD RAILS,  
 GUIDE POSTS, CATTLE GUARD  
 SCALES AS NOTED

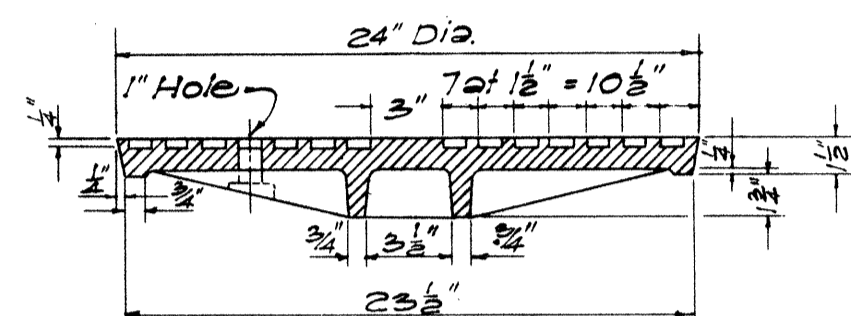
DATE: \_\_\_\_\_  
 SURVEY PLOTTED BY: \_\_\_\_\_  
 DRAWN BY: L. Castro  
 QUANTITIES CHECKED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 ORIGINAL PLAN NO. \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_

NOTE: Stock Pattern From Novelty Foundry ~ Honolulu

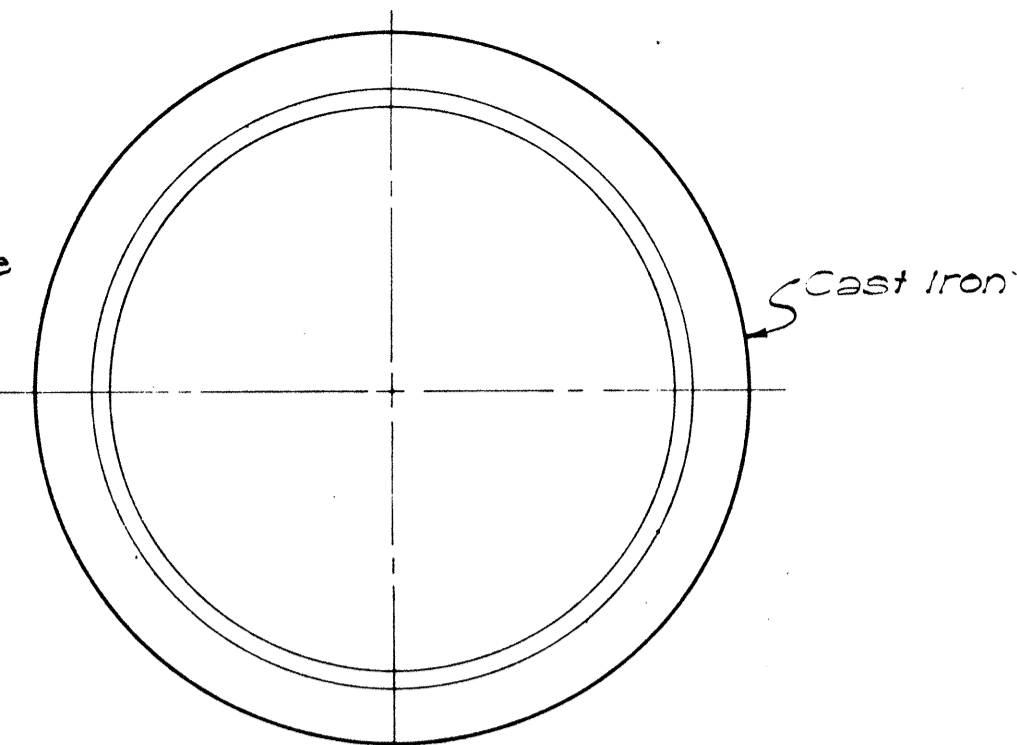


NOTE:  
The Cover for Water Manhole shall be the same as for Sanitary Sewer except that the word "WATER" shall be substituted for "SANITARY SEWER". The frames for Sanitary Sewer and Water Covers shall be the same.

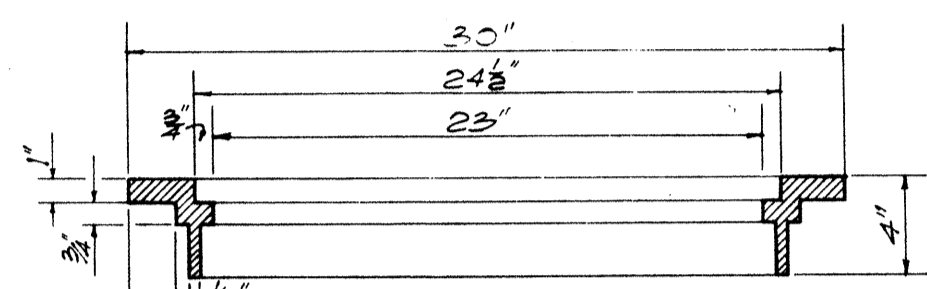
TOP VIEW OF COVER



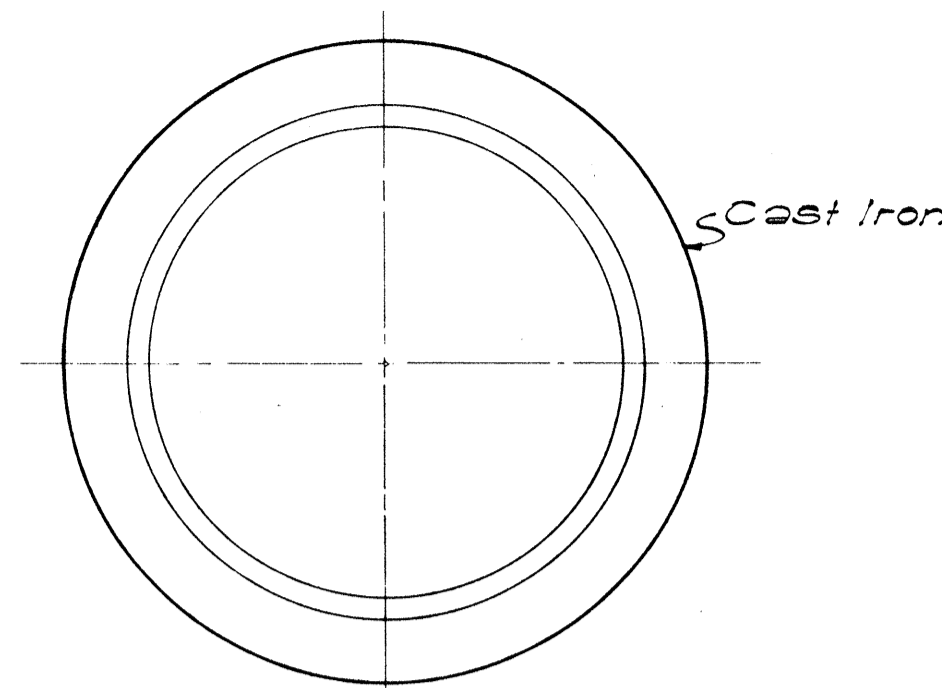
SECTION



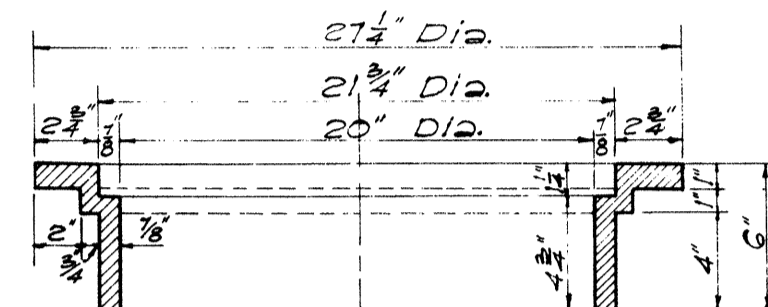
PLAN OF RIM



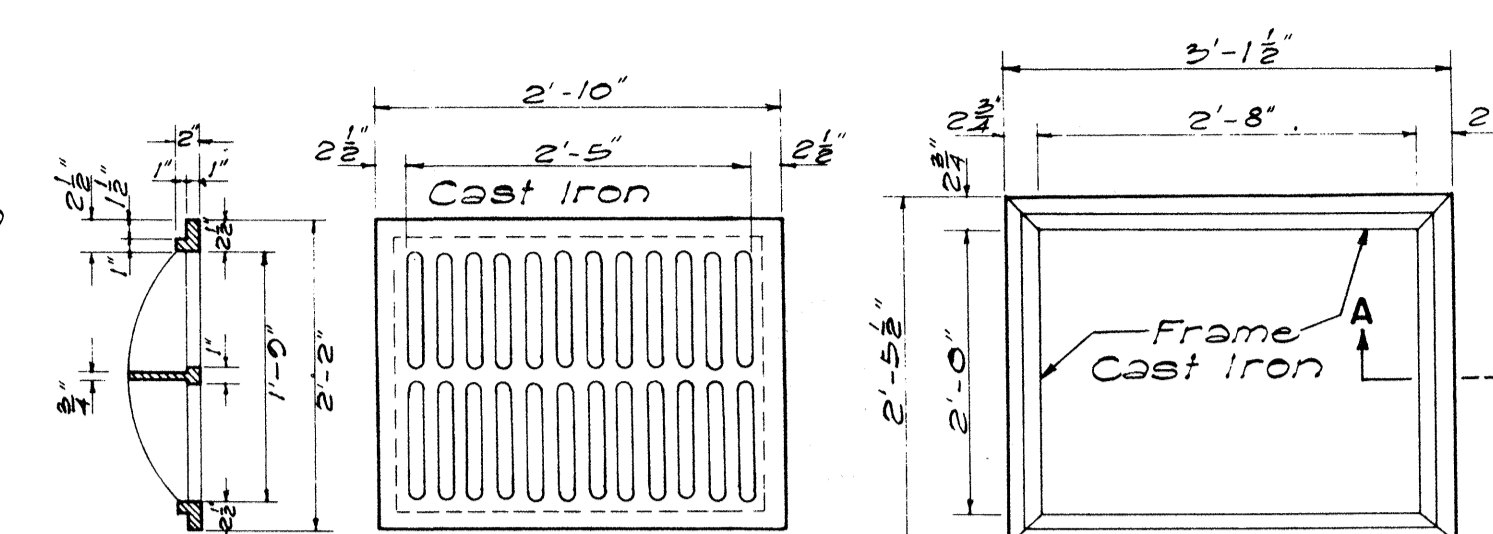
SECTION OF RIM



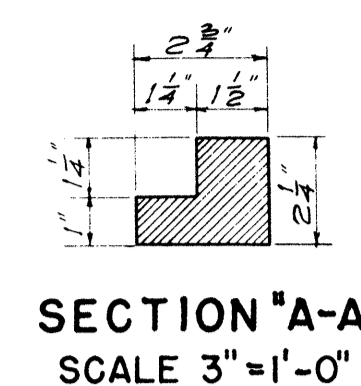
PLAN OF RIM



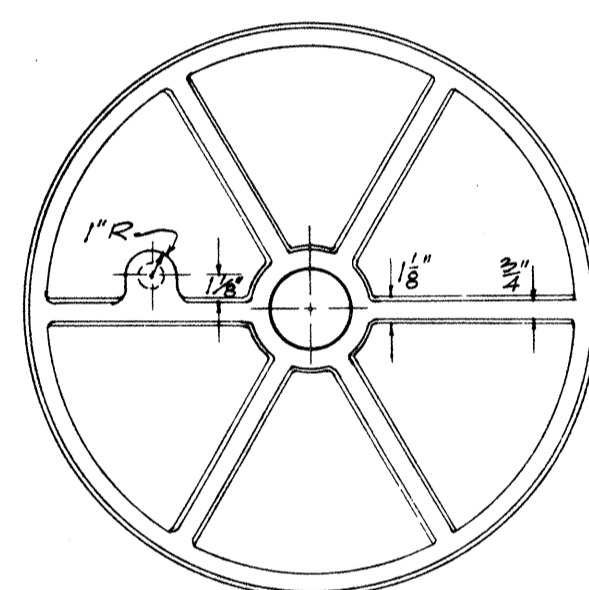
SECTION OF RIM



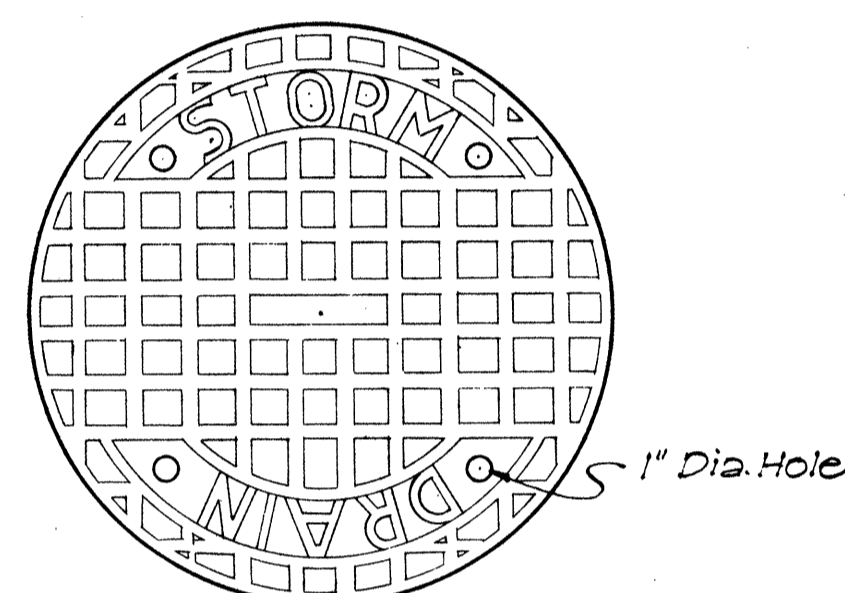
SECTION TOP VIEW TOP VIEW  
TYPE C C.I. FRAME AND GRATING  
SCALE: 3/4" = 1'-0"



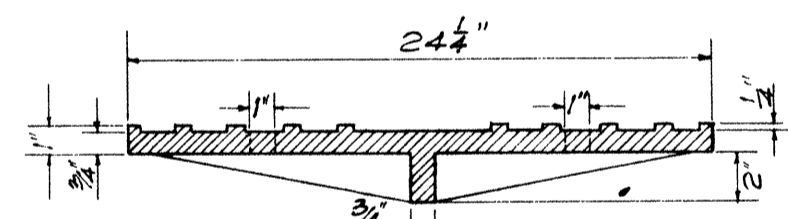
SECTION "A-A"  
SCALE 3" = 1'-0"



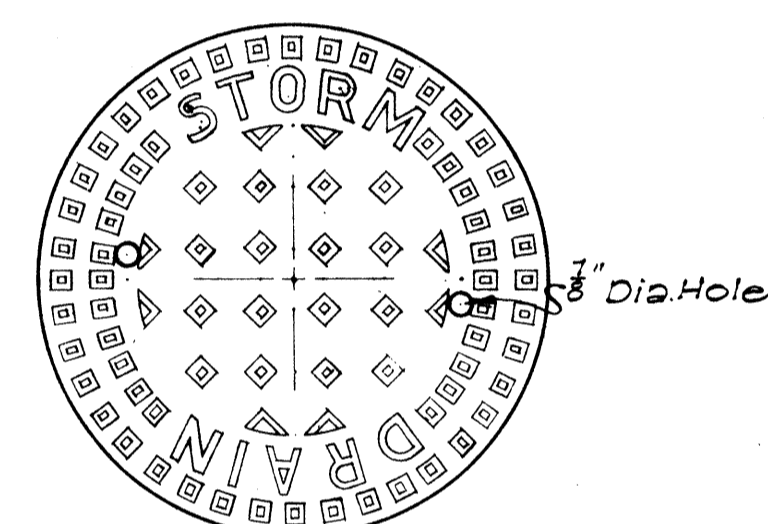
BOTTOM VIEW OF COVER



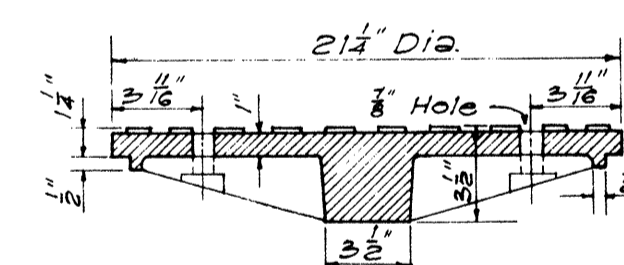
TOP VIEW OF COVER



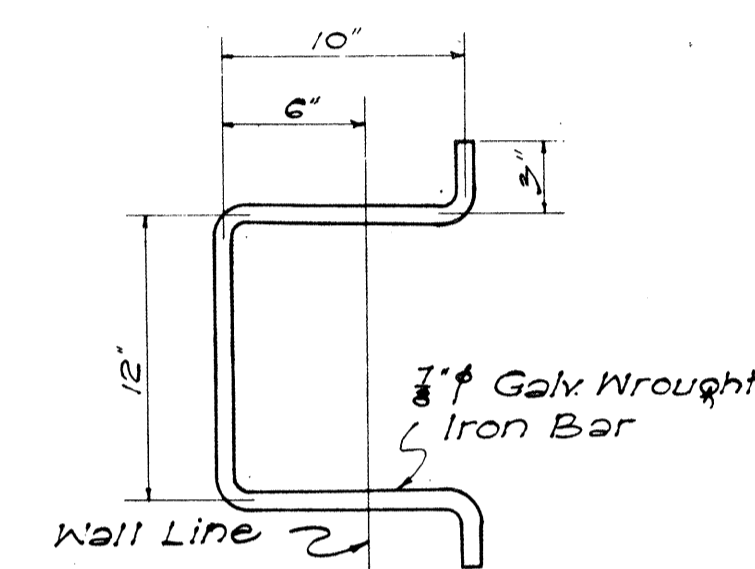
SECTION



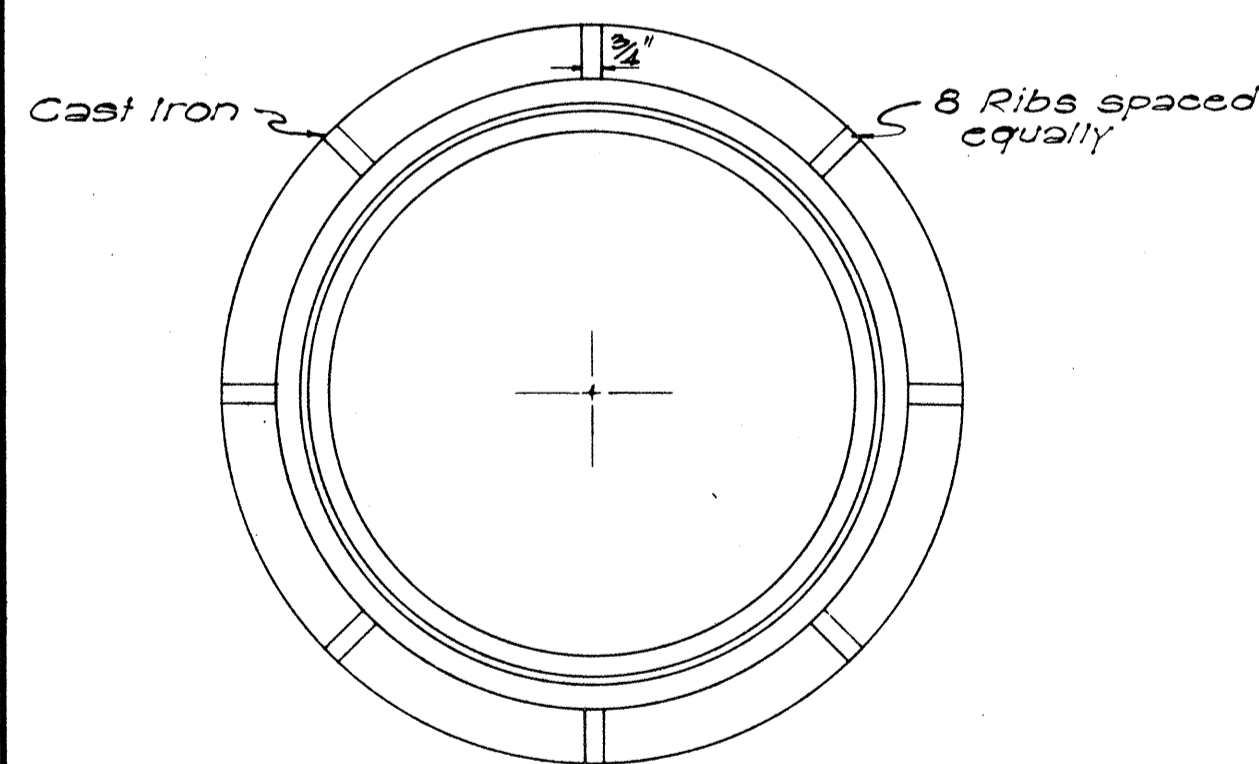
TOP VIEW OF COVER



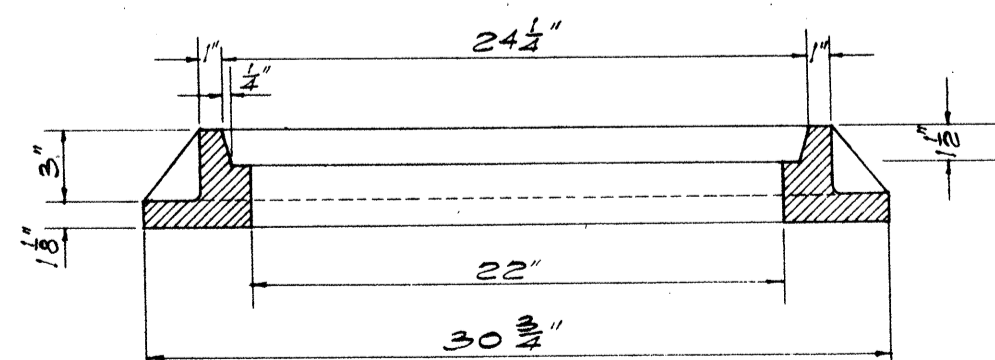
SECTION



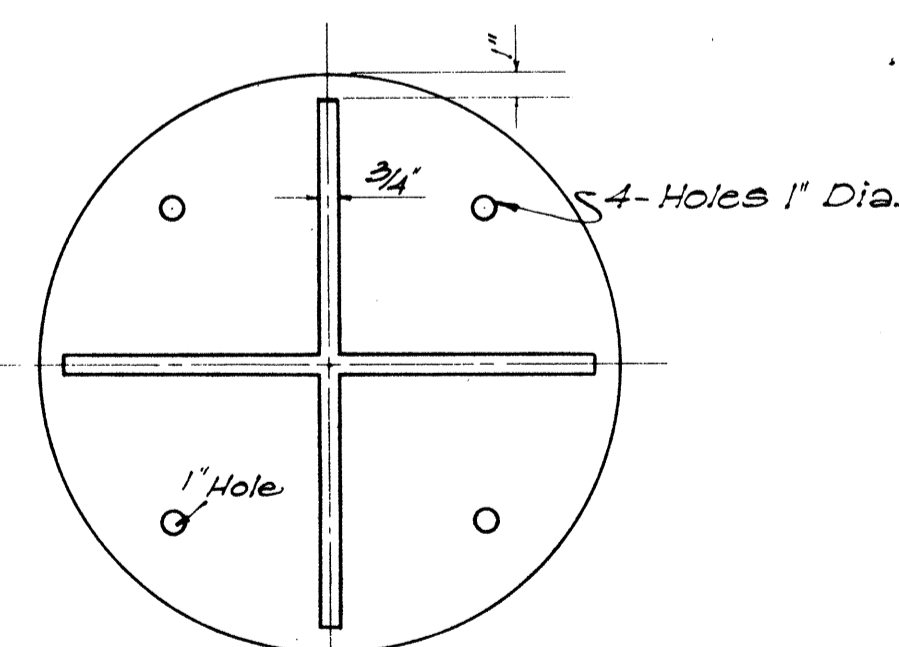
MANHOLE RUNG  
SCALE: 1-1/2" = 1'-0"



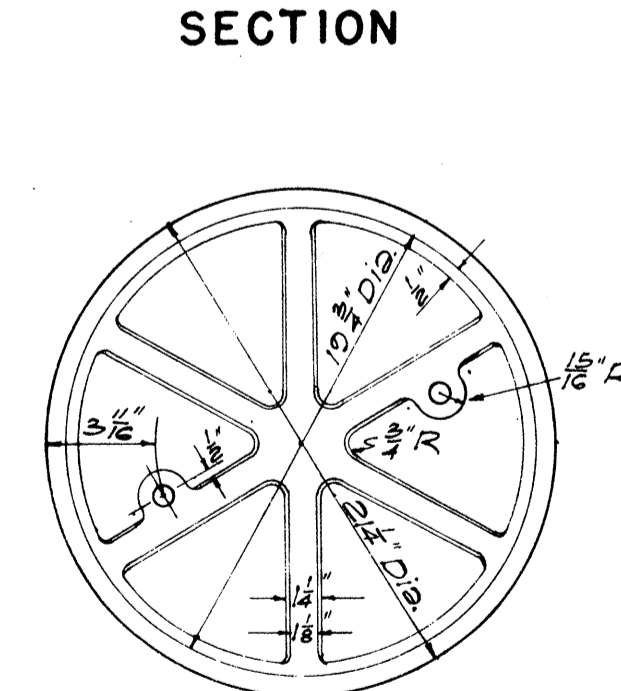
PLAN OF RIM



SECTION OF RIM  
DETAILS OF TYPE "C"  
MANHOLE CASTINGS  
SCALE: 1-1/2" = 1'-0"



BOTTOM VIEW OF COVER  
DETAILS OF TYPE "B"  
CATCH BASIN CASTINGS  
SCALE: 1-1/2" = 1'-0"



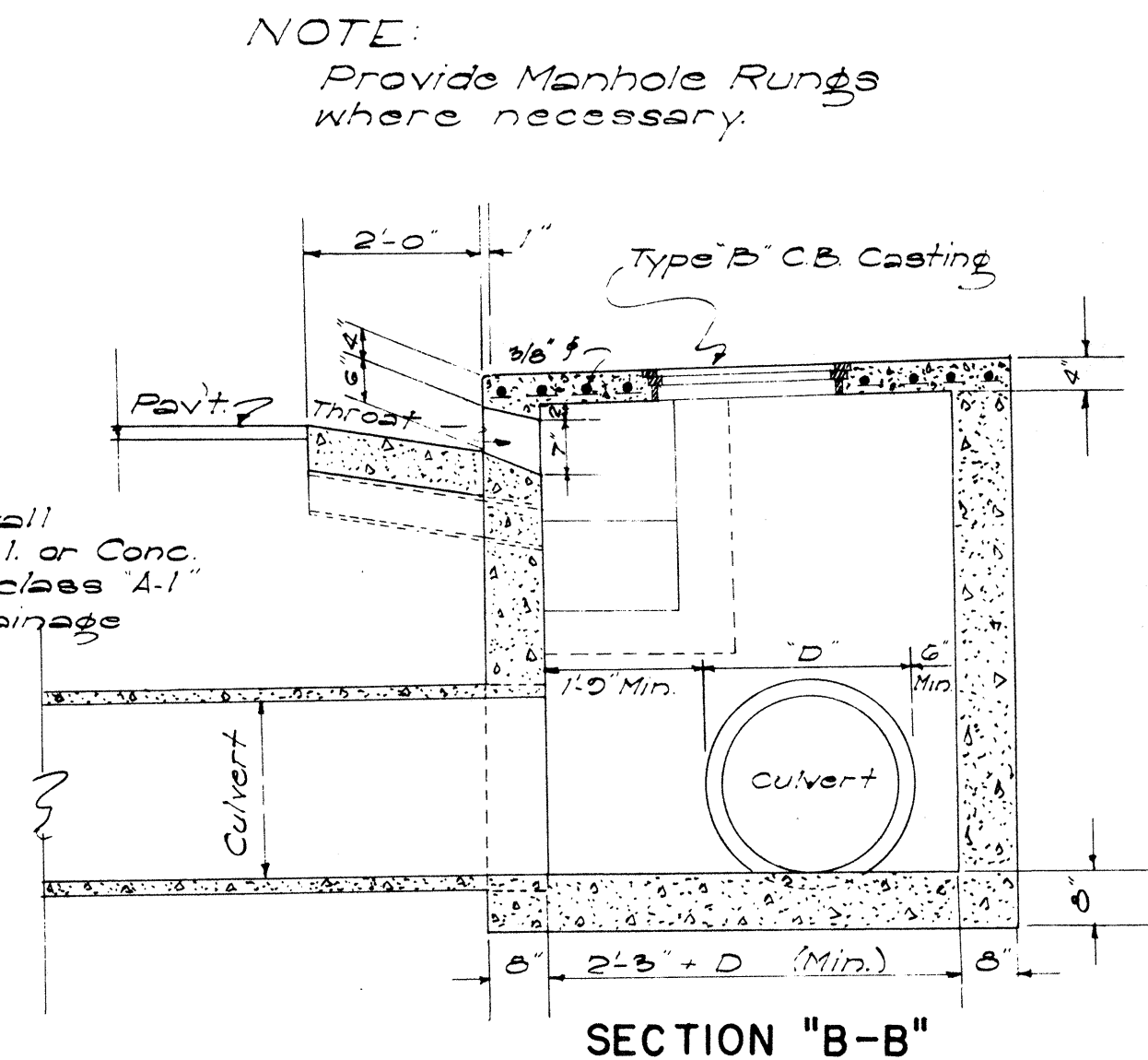
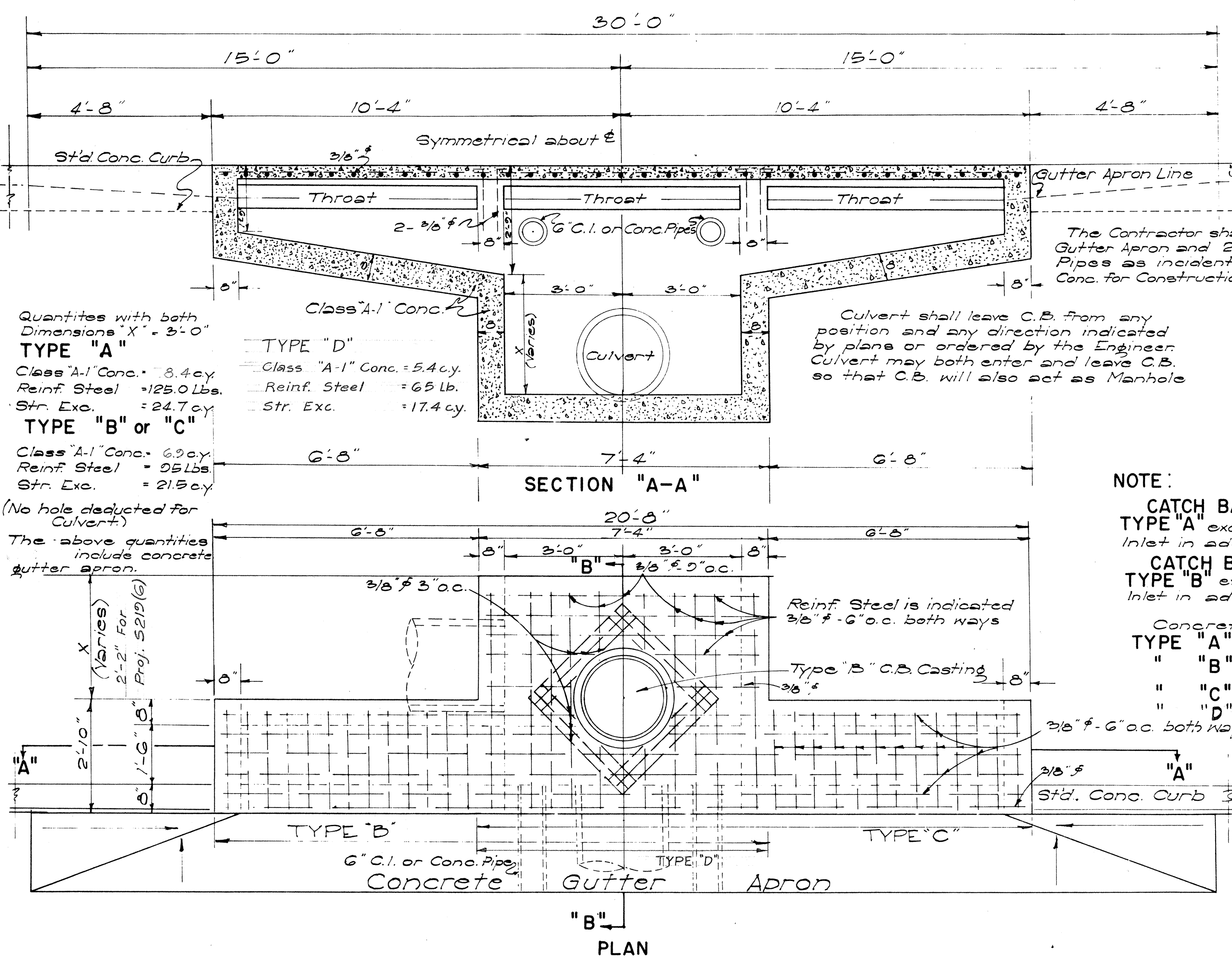
BOTTOM VIEW OF COVER  
DETAILS OF TYPE "A"  
MANHOLE CASTINGS  
SCALE: 1-1/2" = 1'-0"

REVISIONS  
DATE  
DESIGNED BY  
DRAWN BY  
CHECKED BY  
NO. 1  
NO. 2  
NO. 3  
NO. 4  
NO. 5  
NO. 6  
NO. 7  
NO. 8  
NO. 9  
NO. 10

APPROVED: DATE 6-23-54  
TERRITORIAL HIGHWAY ENGINEER

TERRITORIAL HIGHWAY DEPARTMENT  
TERRITORY OF HAWAII  
STANDARD DETAILS  
CATCH BASIN AND  
MANHOLE CASTINGS  
SCALES AS NOTED  
SHEET NO 3 OF 6 SHEETS

5697.9



Note:  
Top slab of catch basins shall be sloped to the finished grades of sidewalk, shoulder or median strip

NOTE:  
CATCH BASIN TYPE "B" similar to TYPE "A" except it has only Left Side Inlet in addition to the Main Box.  
 CATCH BASIN TYPE "C" similar to TYPE "B" except it has only Right Side Inlet in addition to the Main Box.

Concrete Gutter Length:  
 TYPE "A" = 30'-0"  
 " "B" = 23'-4"  
 " "C" = 23'-4"  
 " "D" = 16'-8"

Quantities with both Dimensions "X" = 3'-0"

**TYPE "A"**  
 Class "A-1" Conc. = 8.4 cy  
 Reinf. Steel = 125.0 Lbs.  
 Str. Exc. = 24.7 cy

**TYPE "B" or "C"**  
 Class "A-1" Conc. = 6.9 cy  
 Reinf. Steel = 95 Lbs.  
 Str. Exc. = 21.9 cy

**TYPE "D"**  
 Class "A-1" Conc. = 5.4 cy  
 Reinf. Steel = 65 Lbs.  
 Str. Exc. = 17.4 cy

(No hole deducted for Culvert)  
 The above quantities include concrete gutter apron.

DETAIL OF CONCRETE CATCH BASIN TYPE "A"  
 SCALE: 1/2" = 1'-0"

DATE: .....

DESIGNED BY: .....

DRAWN BY: .....

TRACED BY: .....

QUANTITIES BY: .....

CHECKED BY: .....

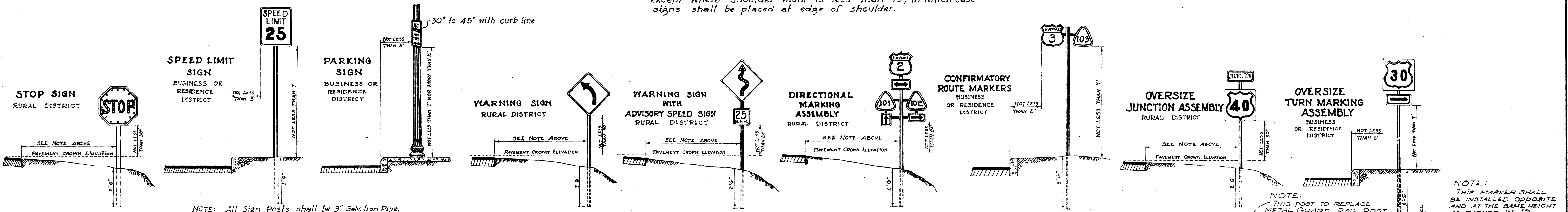
NO. ....

APPROVED: *Ben C. Hunter*  
 TERRITORIAL HIGHWAY ENGINEER

TERRITORIAL HIGHWAY DEPARTMENT  
 TERRITORY OF HAWAII  
 STANDARD DETAILS  
 CATCH BASINS  
 SCALES AS NOTED  
 SHEET NO. 4 OF 6 SHEETS

5697.10

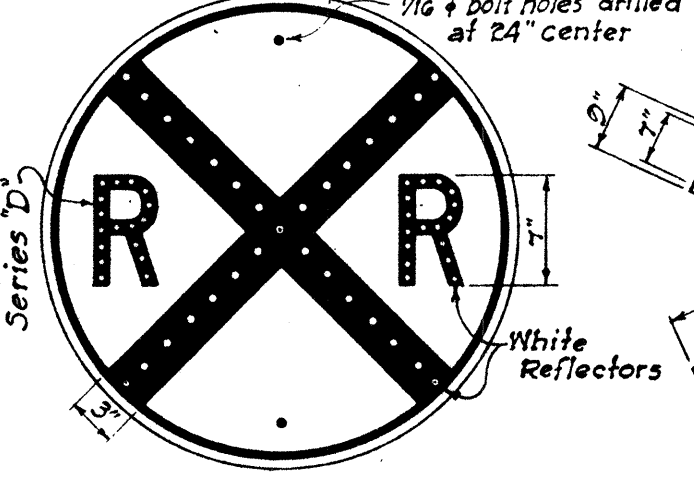
NOTE: All signs shall be placed 10' from edge of pavement except where shoulder width is less than 10', in which case signs shall be placed at edge of shoulder.



HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS  
 Scale: 1" = 3'-0"

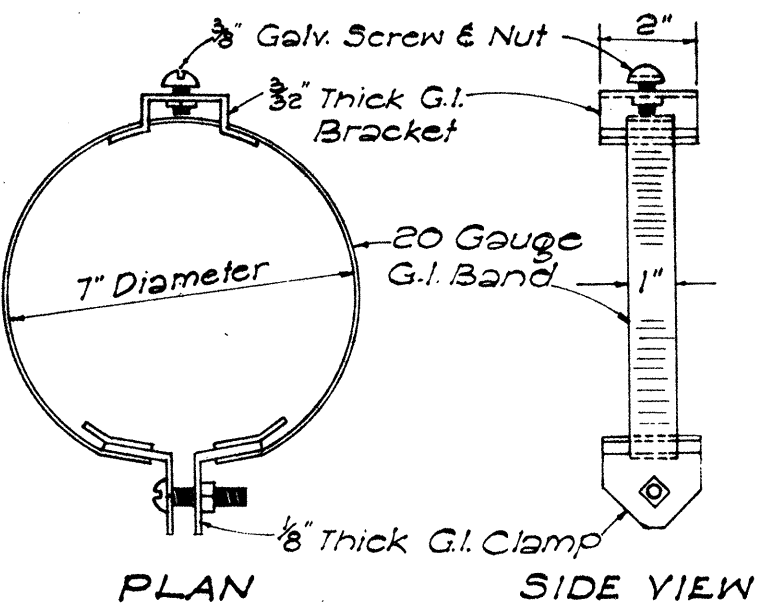
NOTE: All Sign Posts shall be 3" Galv. Iron Pipe. Two (2) 3/8" bolts drilled at location shown. Two (2) 3/8" bolts with leather washers against face and back of metal sign.

Black letter and crossbar on "Highway Yellow" background. 1/8" bolts drilled at 24" center.



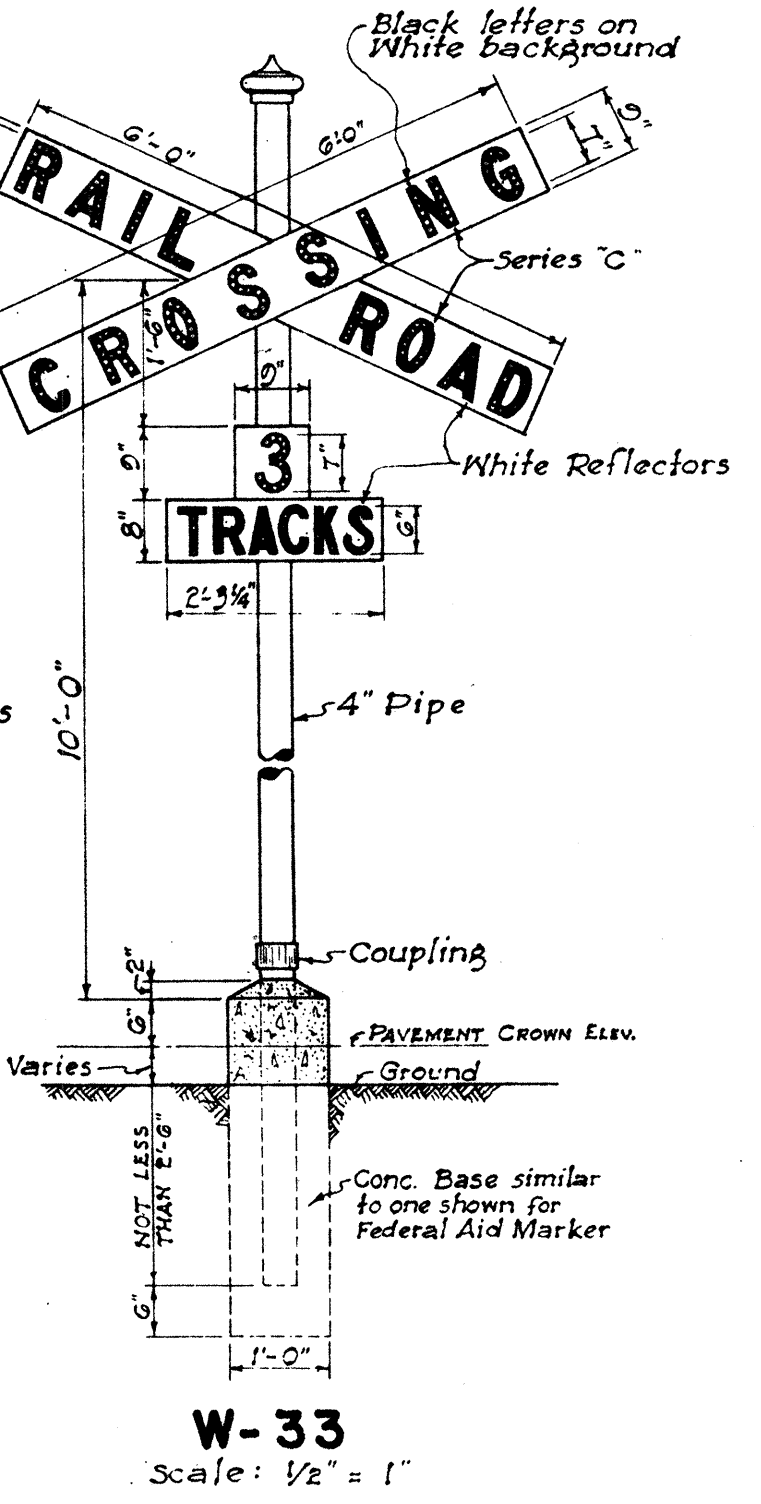
W-32  
 30" Diameter  
 Scale: 1" = 1'-0"

NOTE: This sign shall be placed from 300 to 500 feet from R. R. intersections in rural areas and a minimum distance of 100 feet from R. R. intersections in Residence or Business districts.

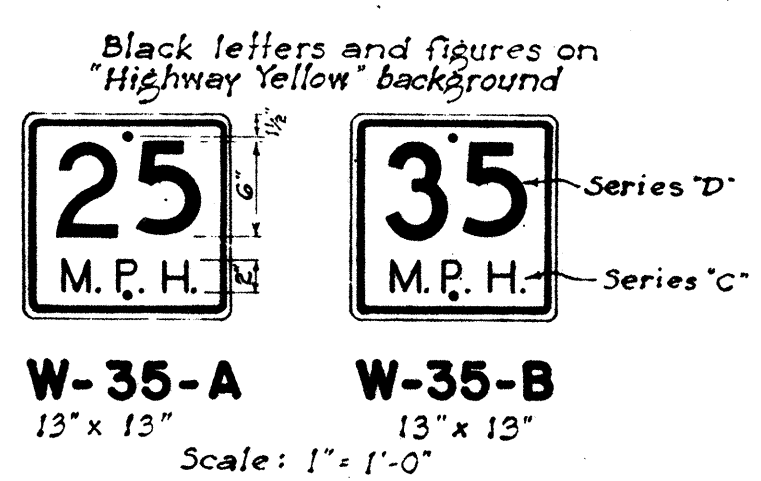


ADJUSTABLE BAND BRACKET FOR SUPPORTING TRAFFIC SIGNS ON MONOTUBE LIGHTING STANDARDS  
 Scale: 3" = 1'-0"

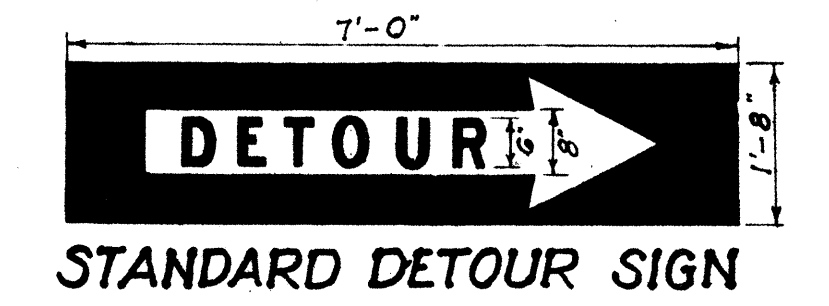
This product to be as shown in Catalogue No. 48 of Calphote Corp or equal.



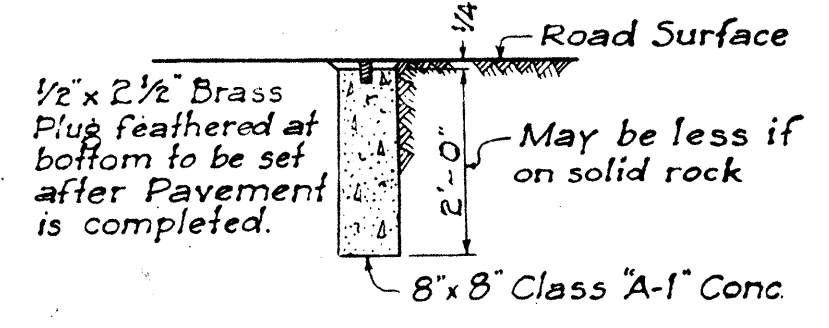
W-33  
 Scale: 1/2" = 1'-0"



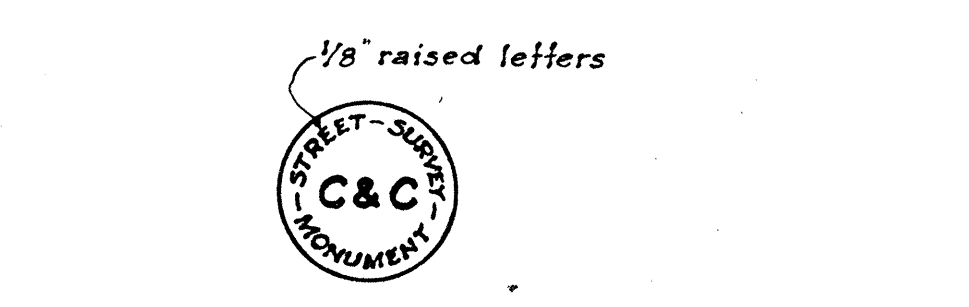
W-35-A W-35-B  
 13" x 13" 13" x 13"  
 Scale: 1" = 1'-0"



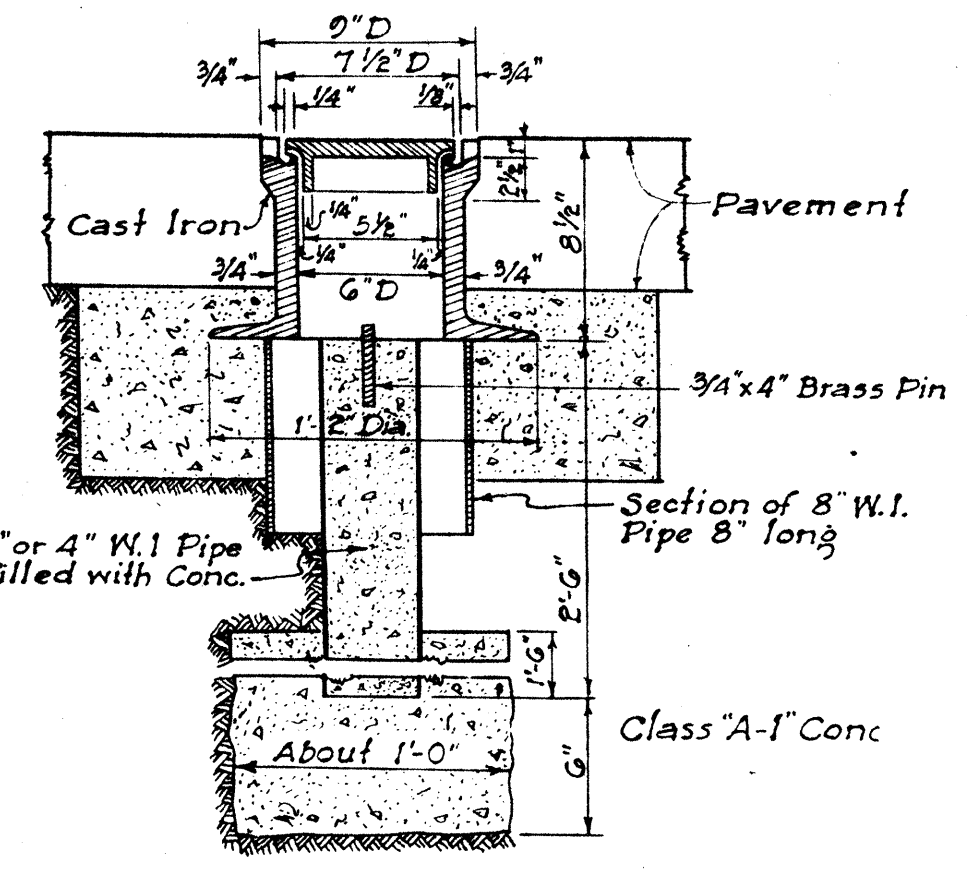
STANDARD DETOUR SIGN  
 Scale: 1/2" = 1'-0"



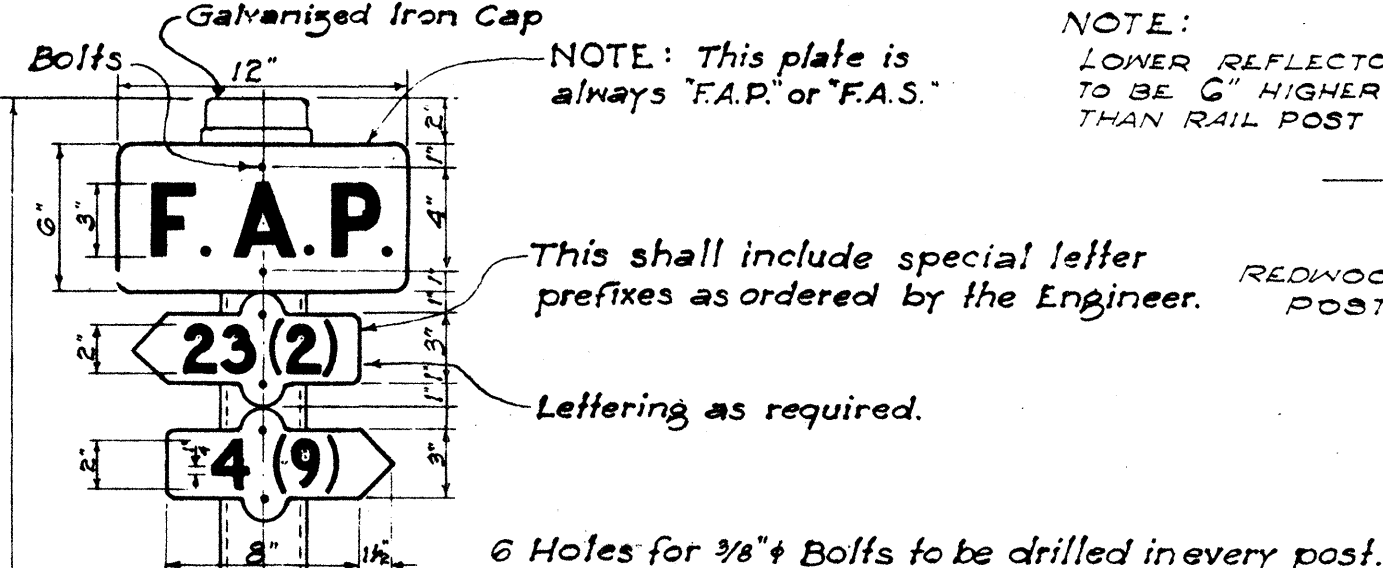
CENTER LINE MONUMENT  
 Scale: 1/2" = 1'-0"



PLAN OF TOP  
 Scale: 1/2" = 1'-0"

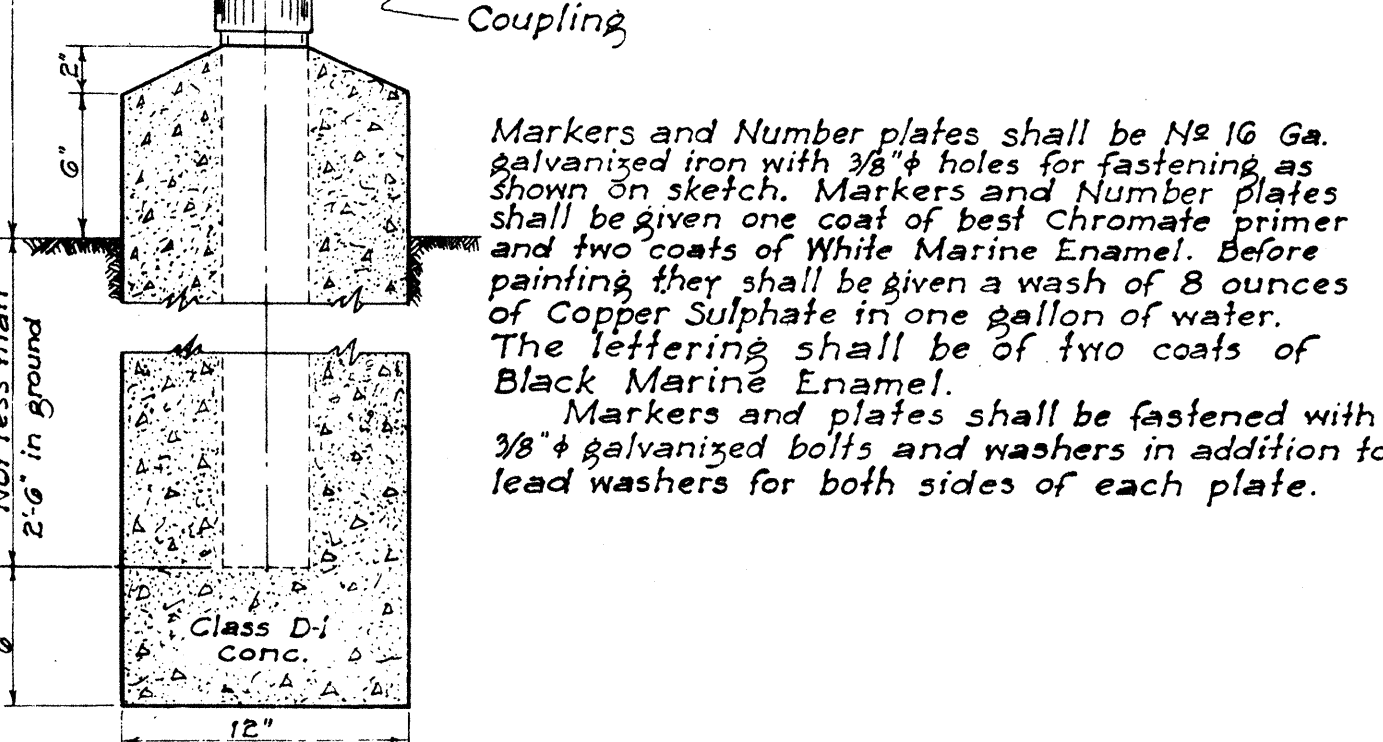


STANDARD C&C STREET SURVEY MONUMENT  
 Scale: 1/2" = 1'-0"



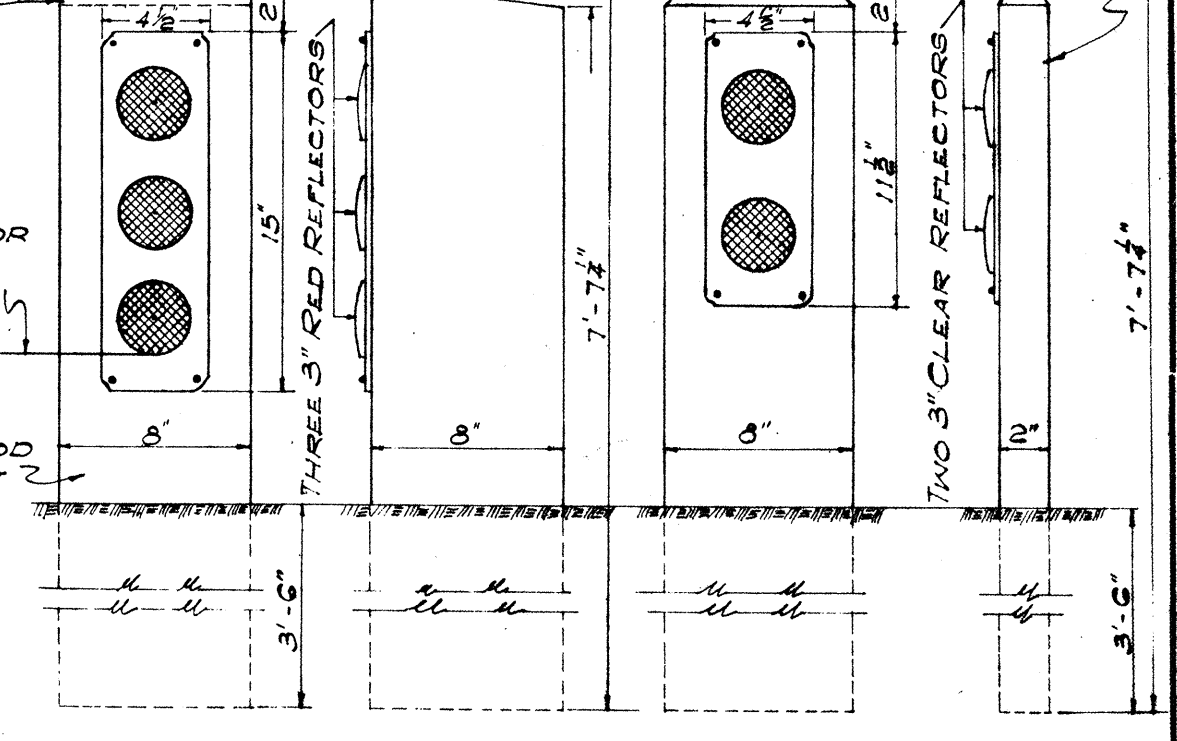
ARRANGEMENT OF MARKERS  
 Scale: 1/2" = 1'-0"

NOTE: This plate is always 'F.A.P.' or 'F.A.S.'  
 NOTE: LOWER REFLECTOR TO BE 6" HIGHER THAN RAIL POST.  
 This shall include special letter prefixes as ordered by the Engineer.  
 Lettering as required.  
 6 Holes for 3/8" Bolts to be drilled in every post.  
 One F.A.P. Marker and one plate shall be placed at the beginning and end of each isolated F.A. Project. Where two F.A. Projects adjoin, a single marker and two Number plates shall be placed, each Number plate pointing in the direction of the project to which it refers.  
 Post in place, complete with one F.A.P. Marker plate and its respective Number plate will be paid for as one item. Each additional Number plate will be paid for separately.

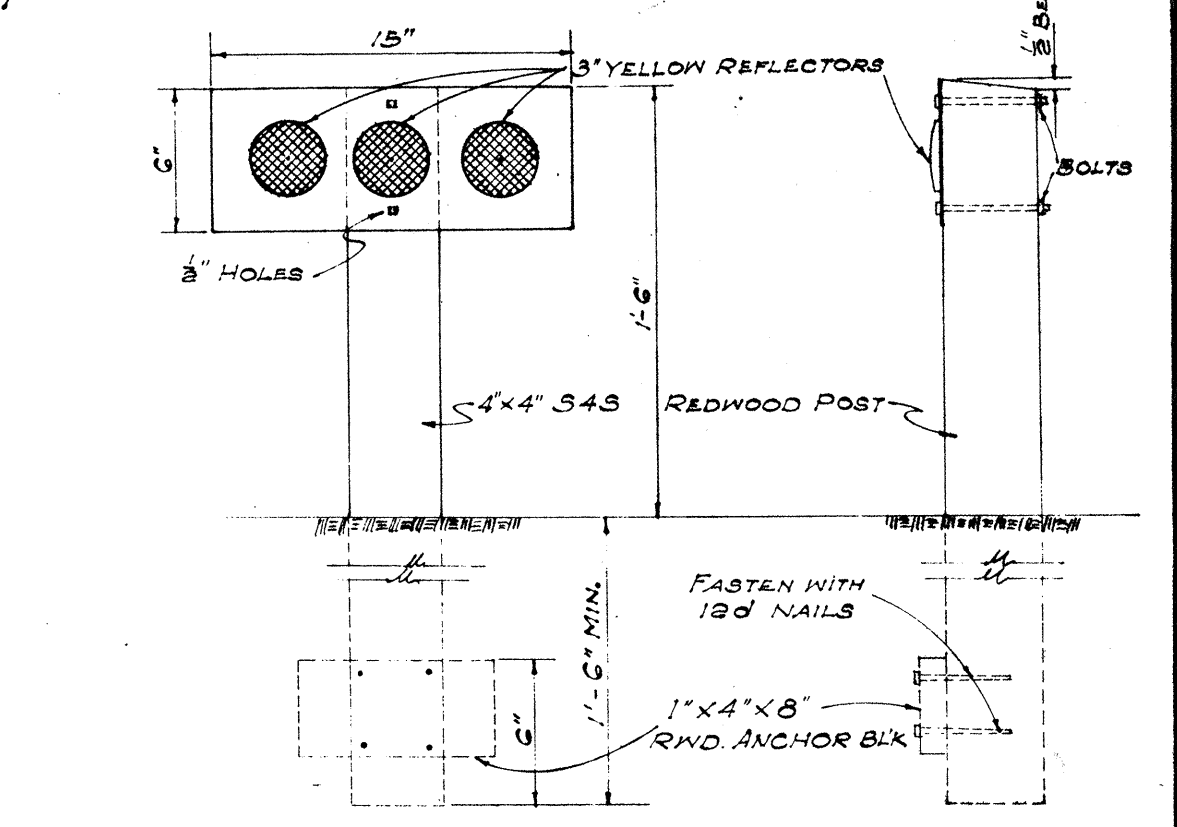


FEDERAL AID MARKER  
 Scale: 1 1/2" = 1'-0"

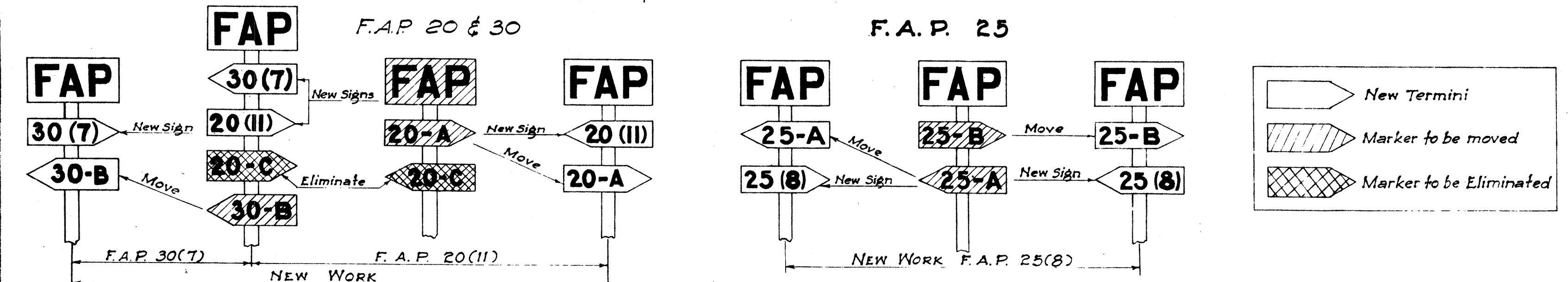
NOTE: THIS MARKER SHALL BE INSTALLED OPPOSITE AND AT THE SAME HEIGHT AS MARKER W-12. CHAMFER 1" REDWOOD POST.



W-42 W-43  
 Scale: 1/2" = 1'-0"

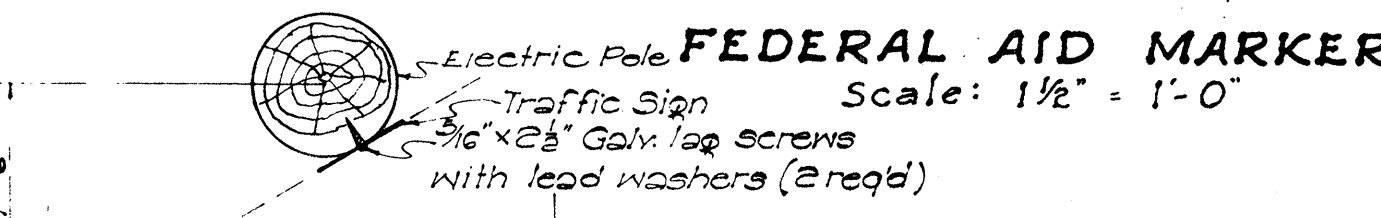


W-41  
 DETAIL OF SIGNS  
 SCALE: 1 1/2" = 1'-0"



NOTE: Federal Aid Markers should be placed at the terminus of suffix designated sections. Intermediate letter designated markers of adjacent sections located within the limits of new improvements should be moved to the terminus of the new work. The same procedure would be followed on each successive improvement until all markers for letter designated sections are eventually eliminated.

METHOD OF MARKING F.A. PROJECTS AT OVERLAPS  
 (USING NUMBER SUFFIX ON NEW WORK)

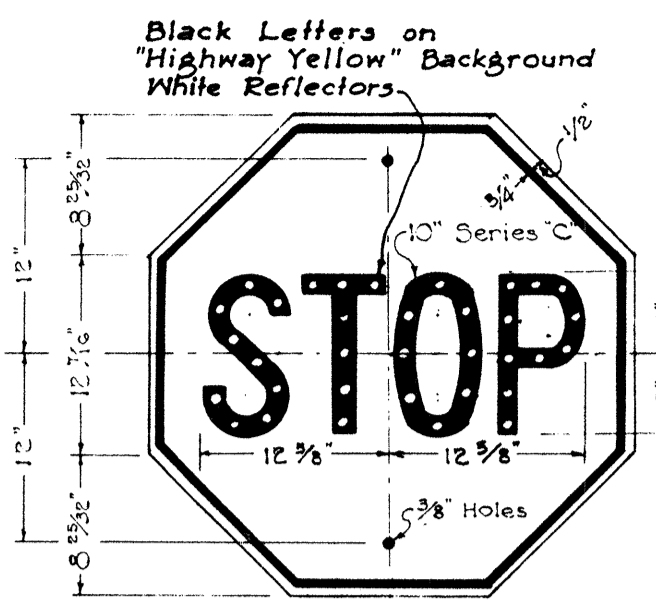


DETAIL SHOWING ANGLE OF TRAFFIC SIGNS AND CURB LINE  
 Scale: 1" = 1'-0"

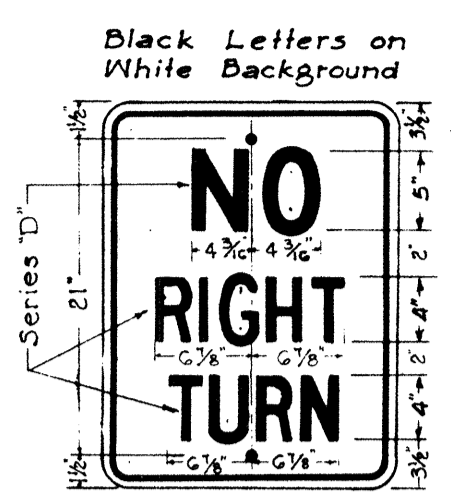
Above detail applies to 'R-18' and 'R-18A' only.

APPROVED: DATE: 6-23-58  
 TERRITORIAL HIGHWAY ENGINEER

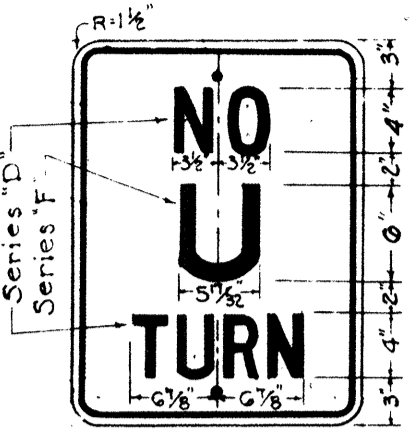
TERRITORIAL HIGHWAY DEPARTMENT  
 TERRITORY OF HAWAII  
 STANDARD DETAILS  
 F.A. MARKERS, MONUMENTS  
 SIGNS & LOCATION OF SIGNS  
 SCALES AS NOTED



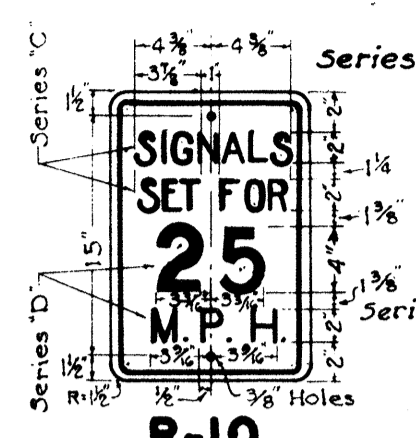
R-1  
30" x 30"



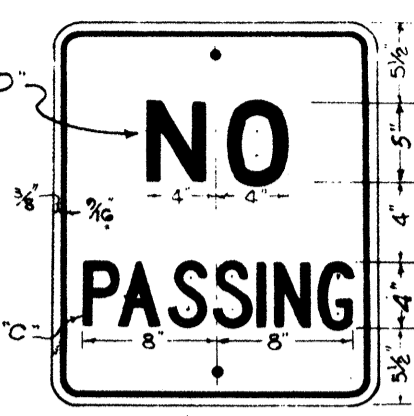
R-6  
18" x 24"



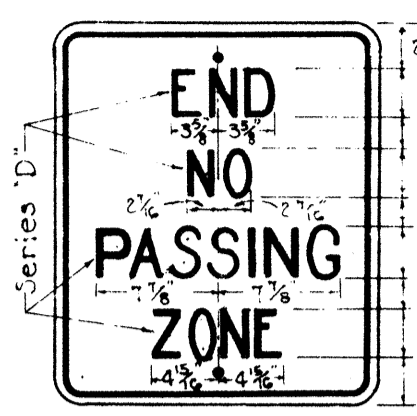
R-8  
18" x 24"



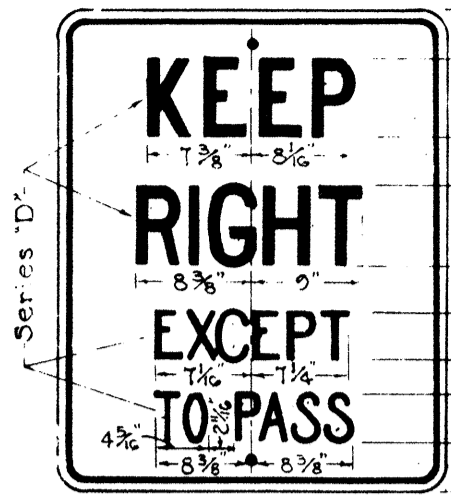
R-10  
12" x 18"



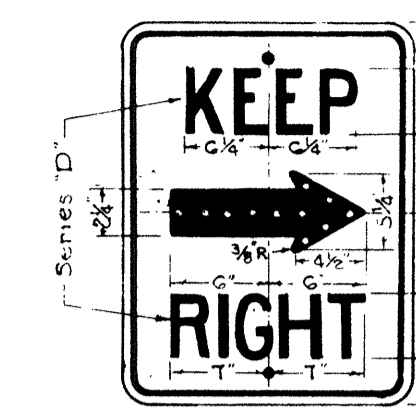
R-11  
20" x 24"



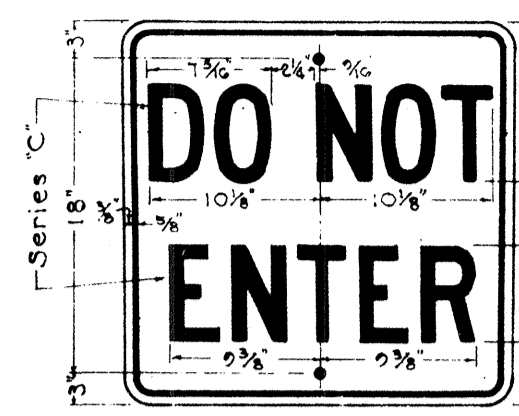
R-12  
20" x 24"



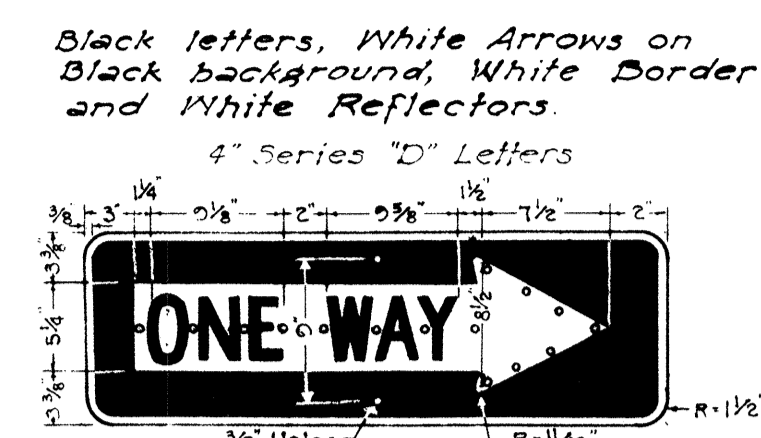
R-13  
24" x 30"



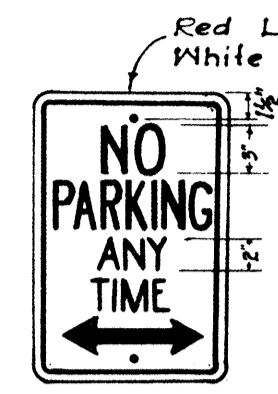
R-14  
18" x 24"



R-15  
24" x 24"



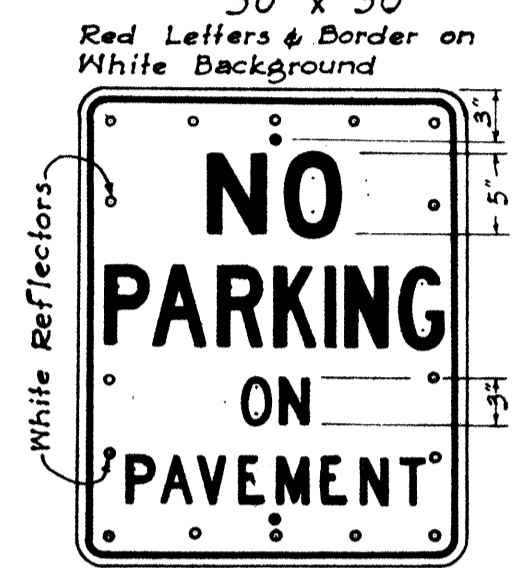
R-16-R  
R-16-L  
36" x 12"



R-18  
12" x 18"



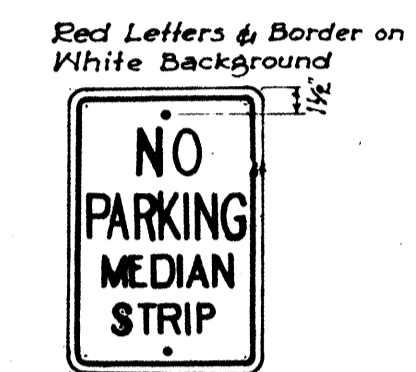
R-26  
12" x 18"



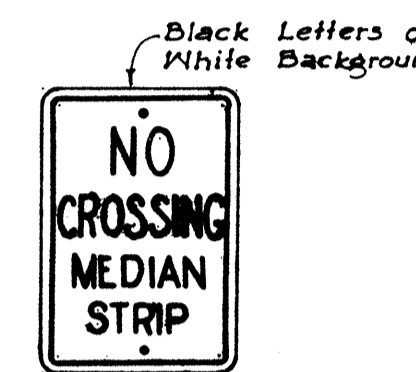
R-29  
24" x 30"



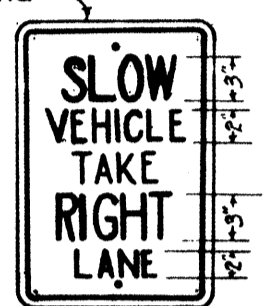
R-41-S  
24" x 24"



R-42-S  
12" x 18"



R-43-S  
12" x 18"



R-44-S  
12" x 18"



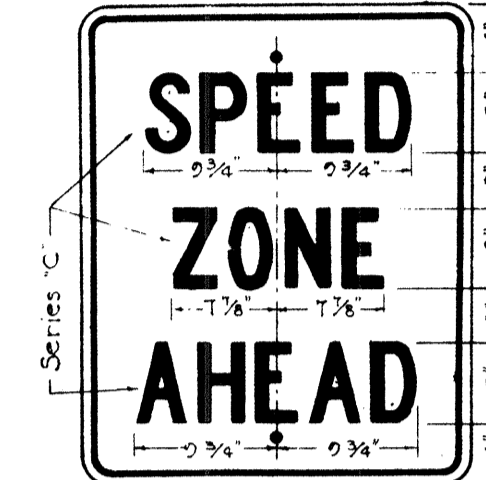
R-102-A  
24" x 30"



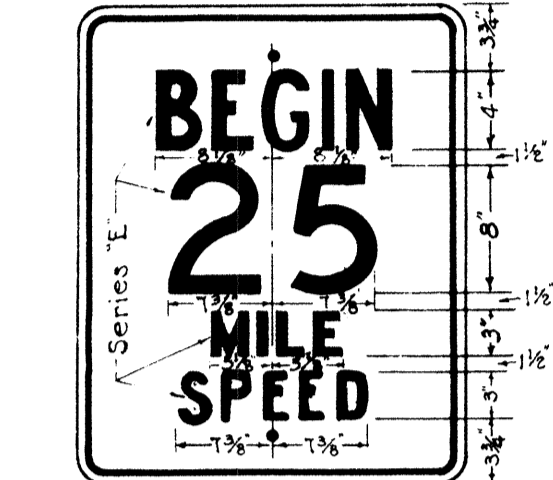
R-102-B  
24" x 30"



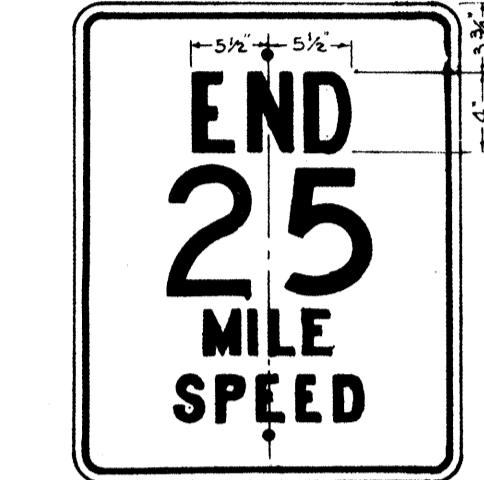
R-102-C  
24" x 30"



R-104  
24" x 30"



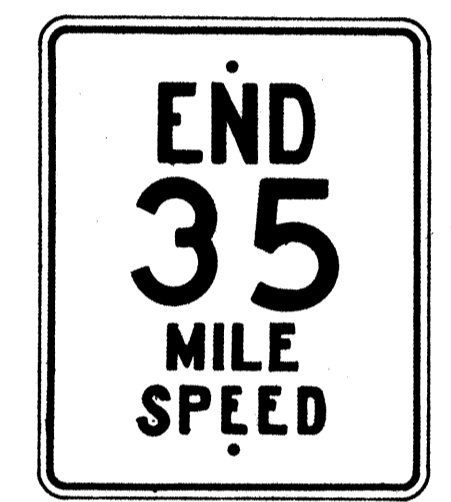
R-105-A  
24" x 30"



R-105-B  
24" x 30"



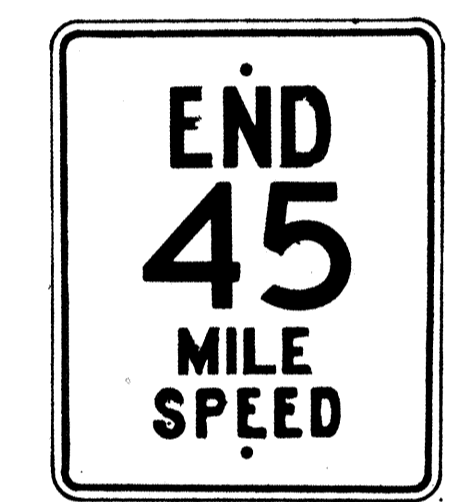
R-105-C  
24" x 30"



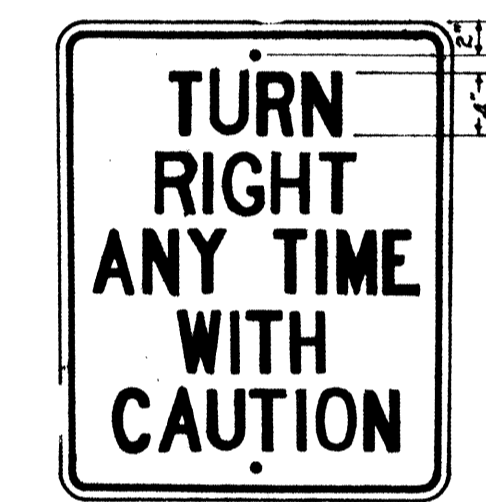
R-105-D  
24" x 30"



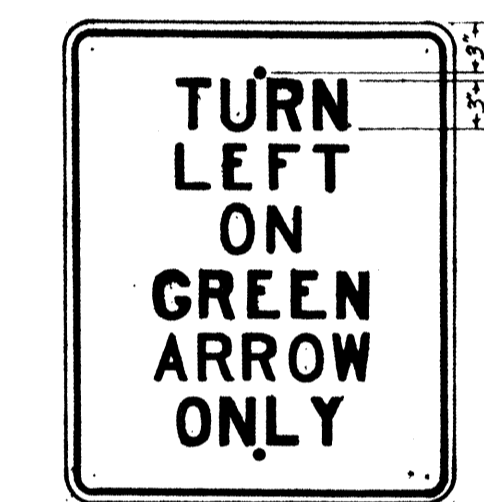
R-105-E  
24" x 30"



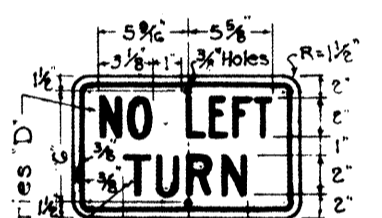
R-105-F  
24" x 30"



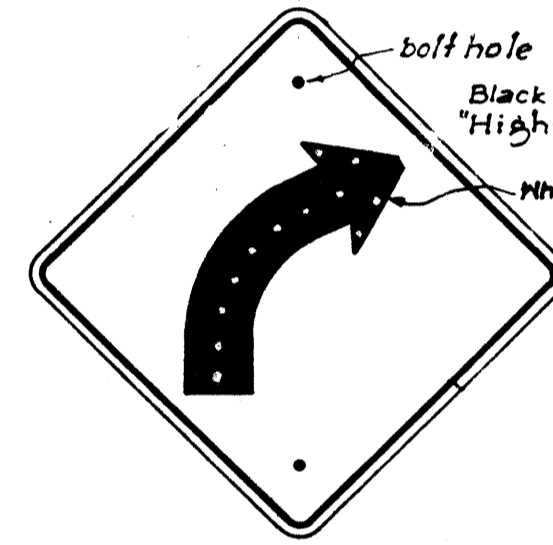
R-106  
24" x 30"



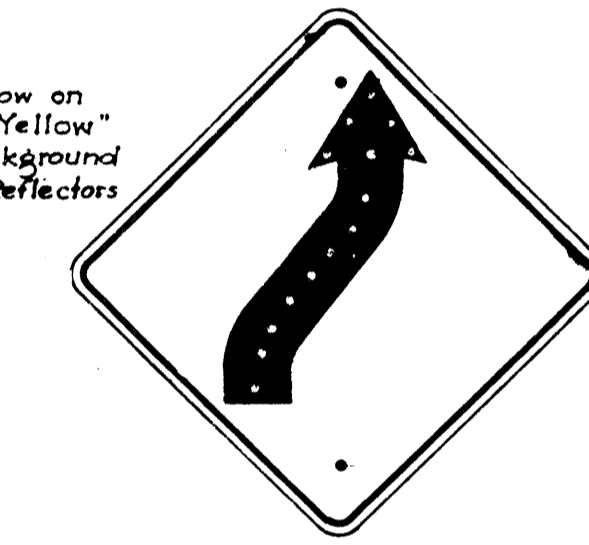
R-107-A  
24" x 30"



R-107  
14" x 9"



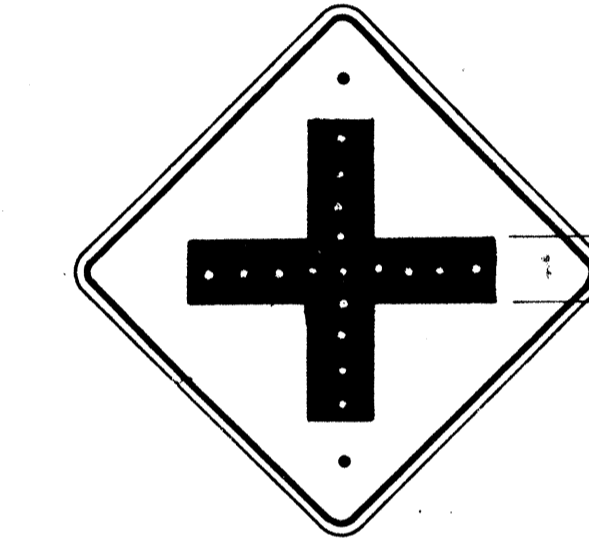
W-2-R  
\*W-2-L  
24" x 24"



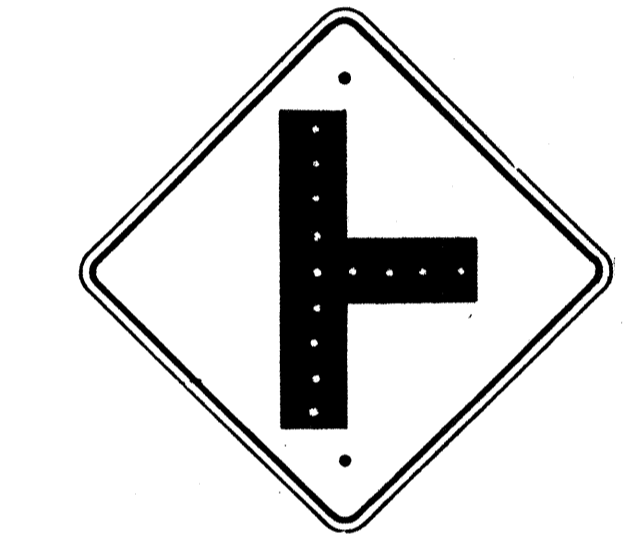
W-4-R  
\*W-4-L  
24" x 24"



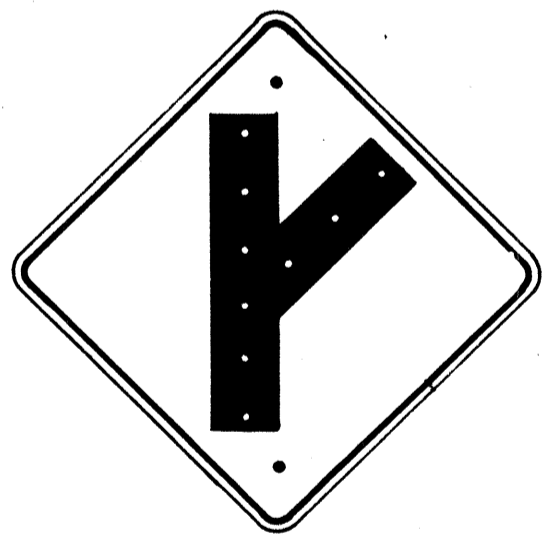
W-5-R  
\*W-5-L  
24" x 24"



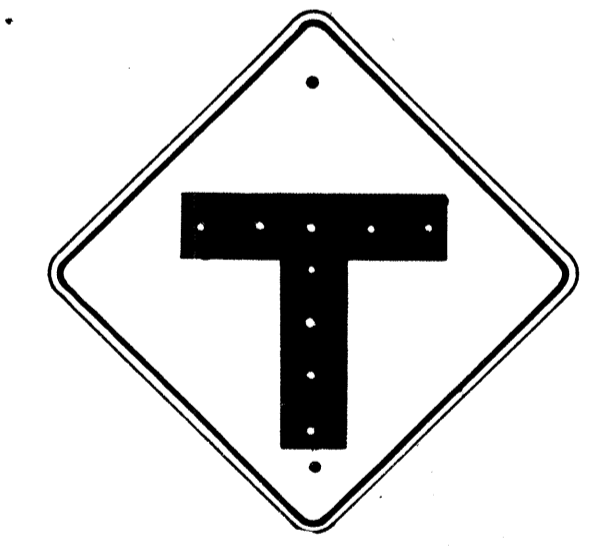
W-6  
24" x 24"



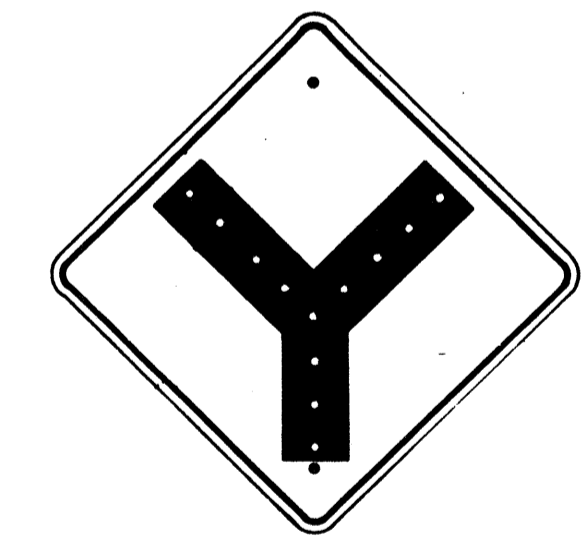
W-7  
24" x 24"



W-8-R  
\*W-8-L  
24" x 24"



W-9  
24" x 24"



W-10  
24" x 24"



W-13  
24" x 24"



W-14  
24" x 24"



W-14-A  
24" x 24"



W-19  
30" x 30"



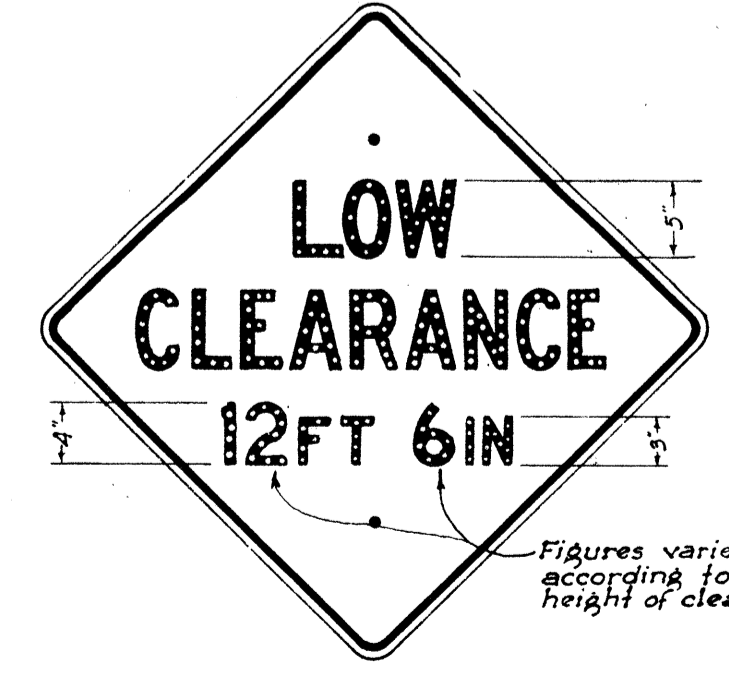
W-20  
30" x 30"



W-21  
30" x 30"



W-22  
24" x 24"



W-24  
30" x 30"



W-25  
24" x 24"



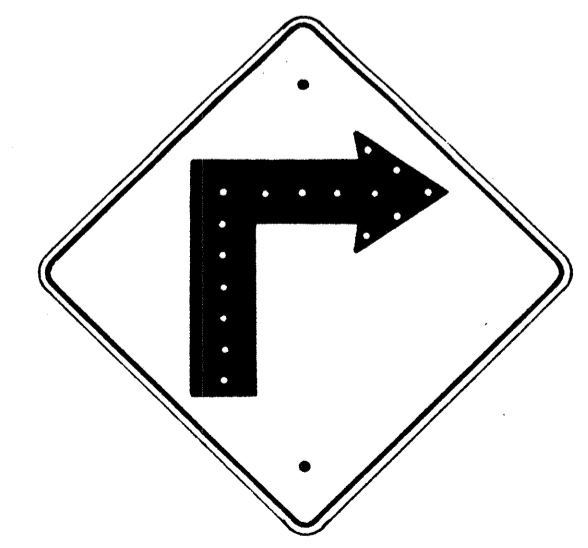
W-29  
24" x 24"



W-38  
24" x 24"



W-39  
24" x 24"



W-1-R  
\*W-1-L  
24" x 24"

All letters and figures shall be of size and design shown and shall conform with "Standard Alphabets for Highway Signs" as set forth by the Public Roads Administration, Federal Works Agency. Series "C" letters and Series "D" numerals shall be used except where noted.

Note: All Regulatory (R) signs shall have black letters on a white background except where noted. All Warning (W) signs shall have black letters or figures on a "Highway Yellow" background. \*Signs shall be similar but opposite in direction. See Specifications for Materials and Finish.

TERRITORIAL HIGHWAY DEPARTMENT  
TERRITORY OF HAWAII  
REGULATORY & WARNING SIGNS  
Scale: 1" = 1'  
APPROVED: *B. E. Nuttle*  
TERRITORIAL HIGHWAY ENGINEER  
JUNE 23, 1953

DATE \_\_\_\_\_  
SURVEY PLOTTED BY \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
TRACED BY T. Tokunaga  
QUANTITIES BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_