

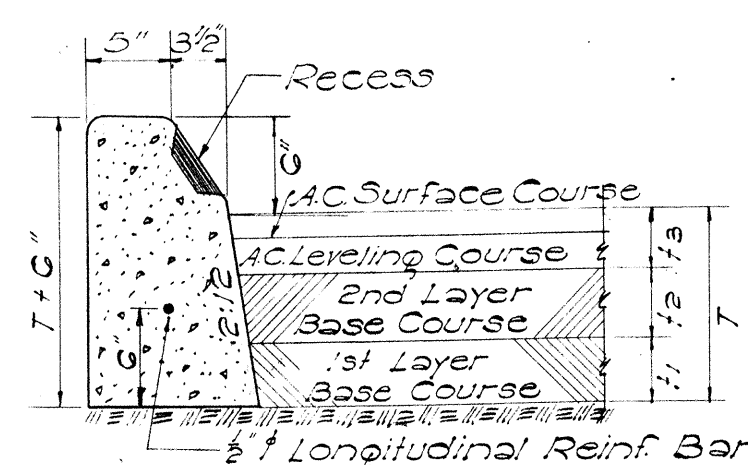
2/17/59
9/22/61

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-090-10	1964	58	177

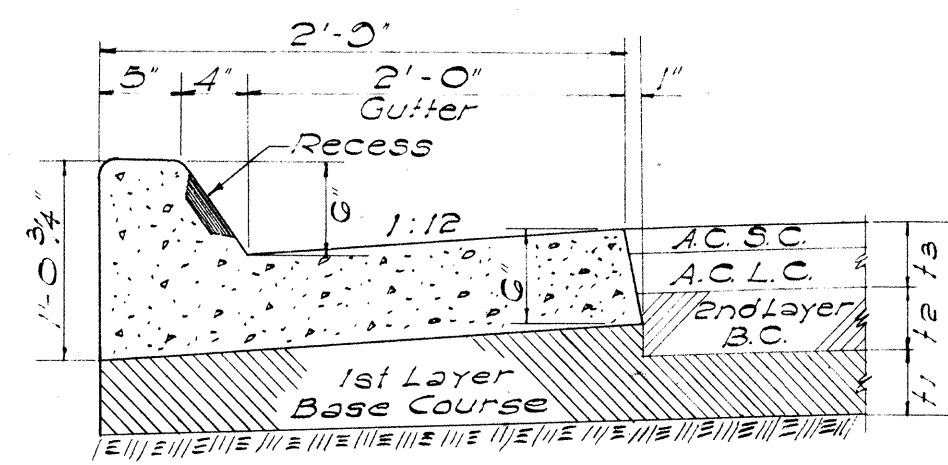
AUG. 1957

NOTE:

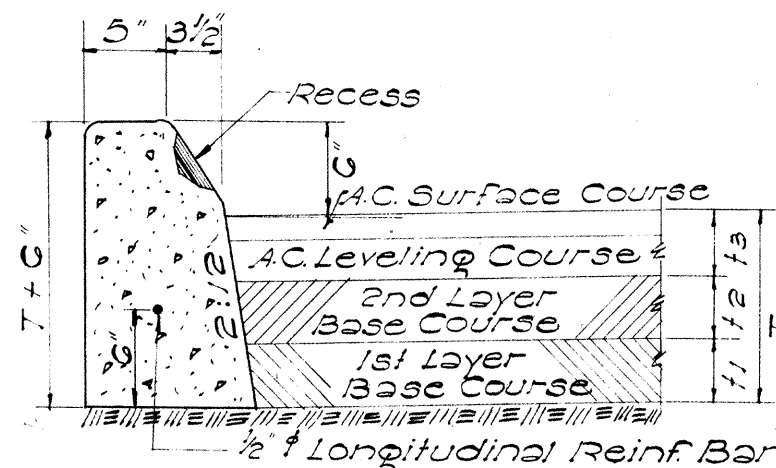
Modified Curbs and Gutters are similar to Standard Curbs and Gutters, except the Gutter slope shall follow the superelevation of the road.



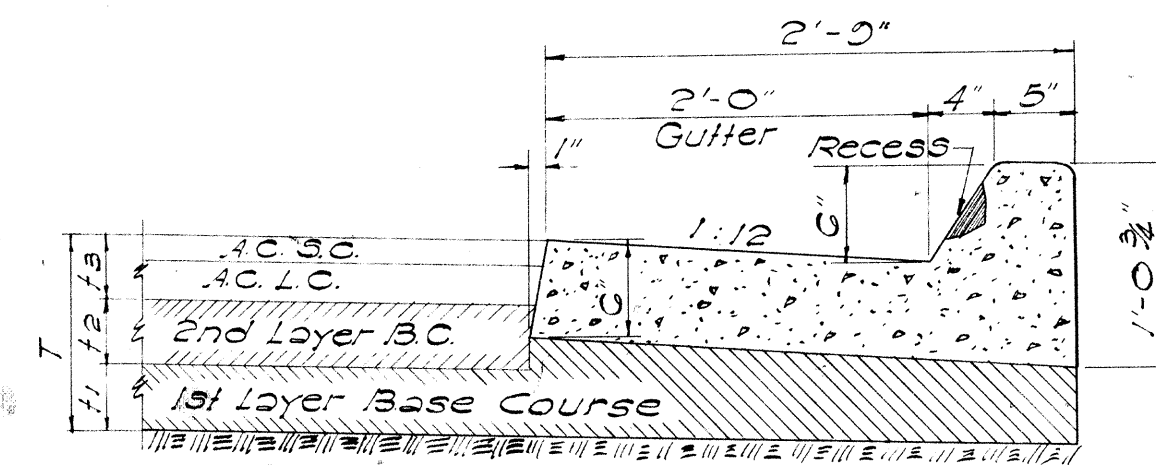
TYPE "A" & "B" CURB
SCALE: 1" = 1'-0"



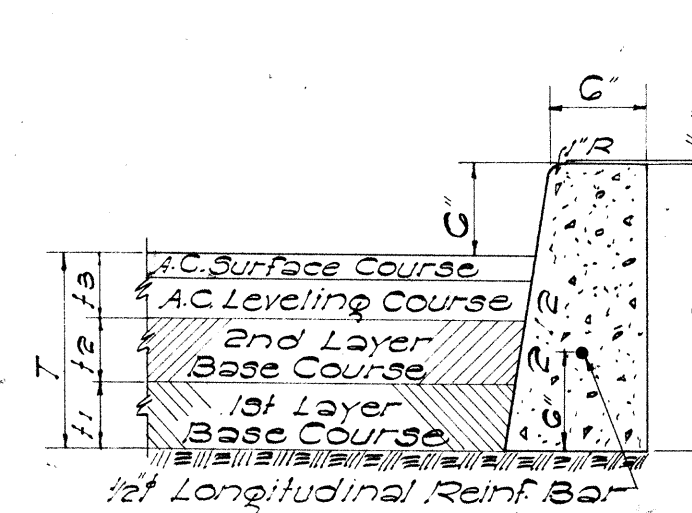
TYPE "AG" & "BG" CURB & GUTTER
SCALE: 1" = 1'-0"



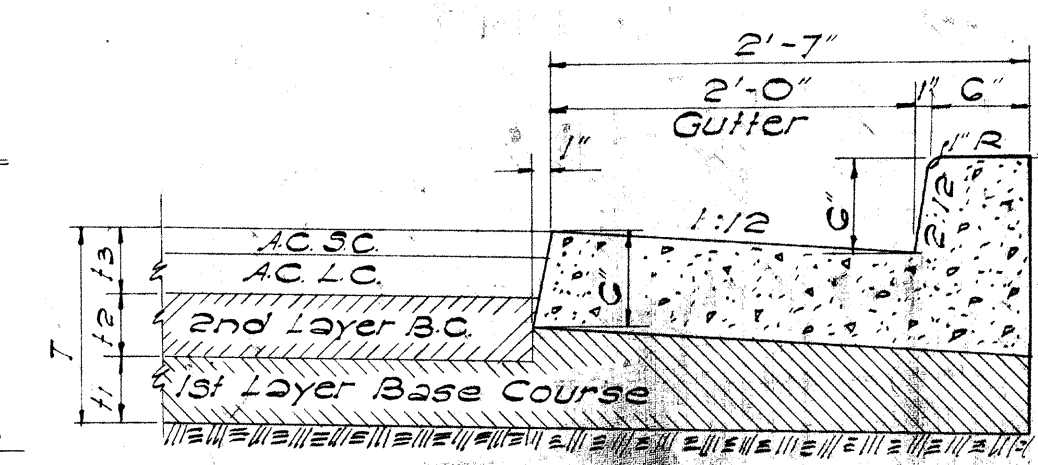
TYPE "C" CURB
SCALE: 1" = 1'-0"



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

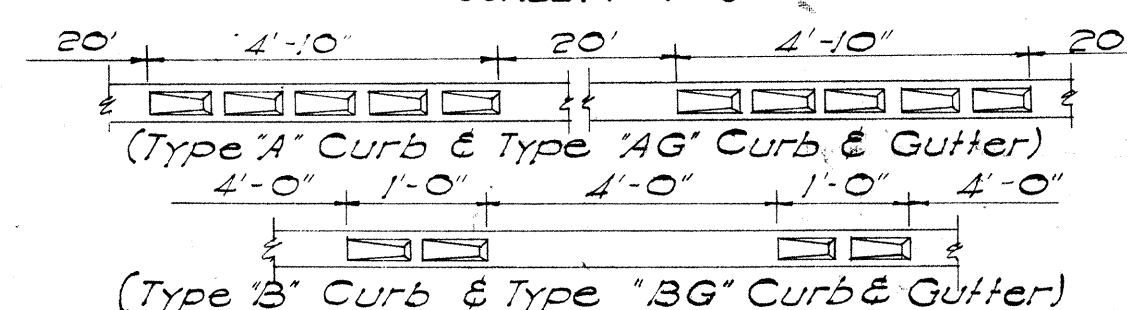


TYPE "D" CURB
SCALE: 1" = 1'-0"

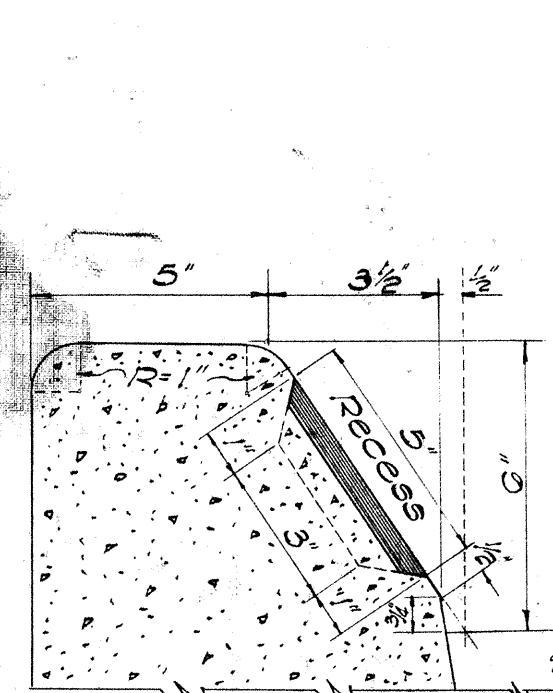


TYPE "DG" CURB & GUTTER
SCALE: 1" = 1'-0"

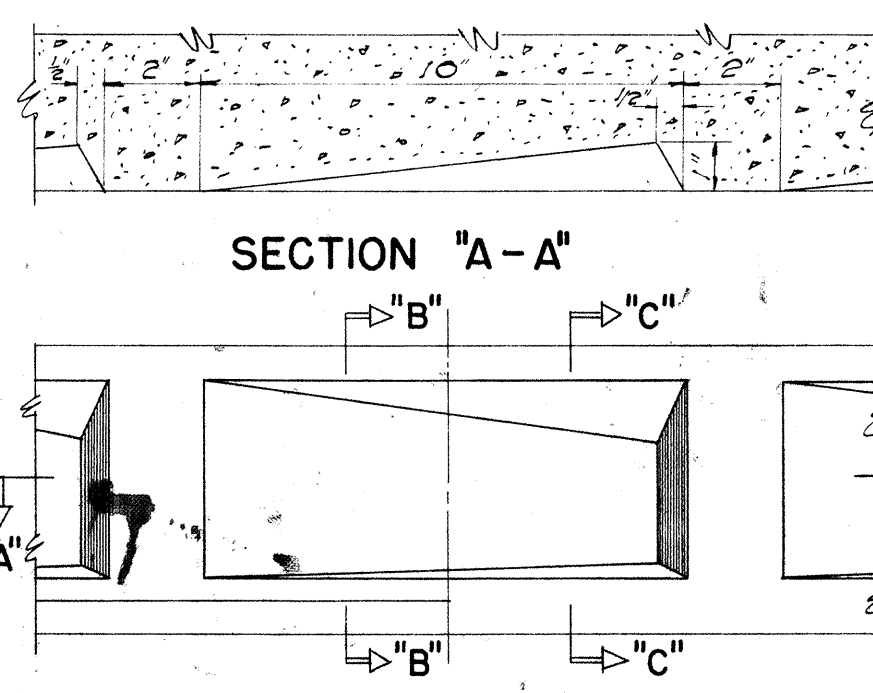
General Note Covering All Types of Curbs:
Occasionally curb rests on first layer of base course. See typical sections.



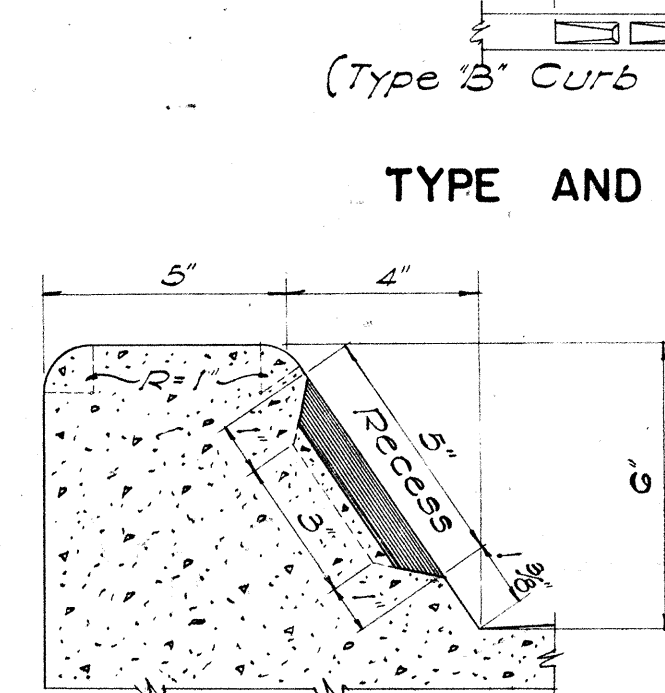
TYPE AND SPACING OF RECESSES



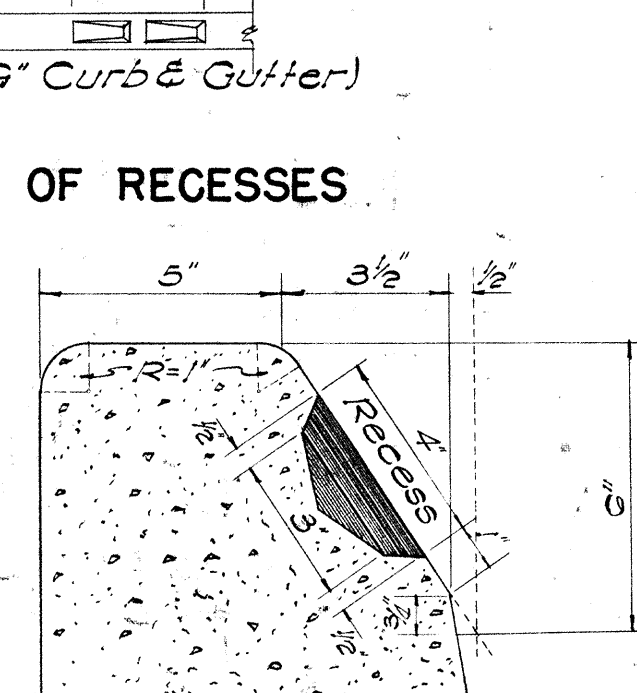
SECTION "B-B"
TYPE "A" & "B" CURB



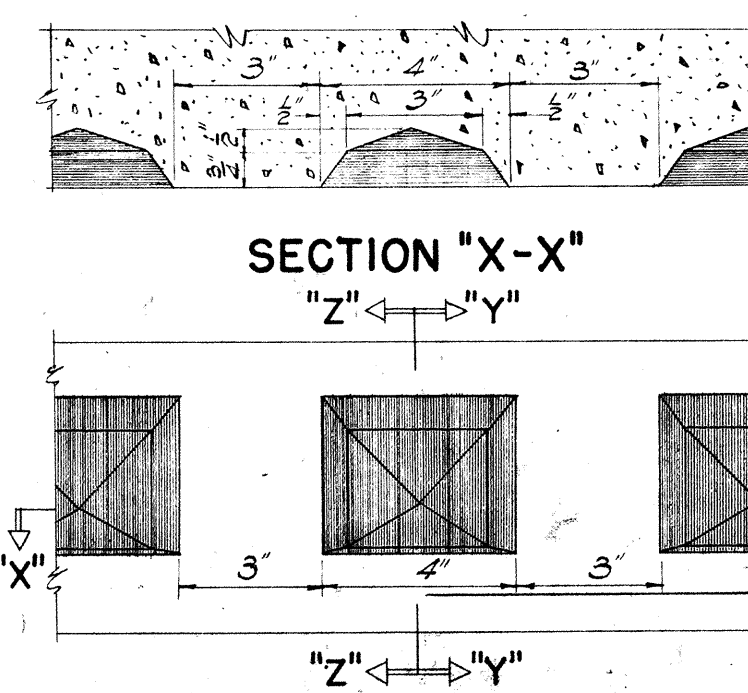
ELEVATION
SCALE: 3" = 1'-0"



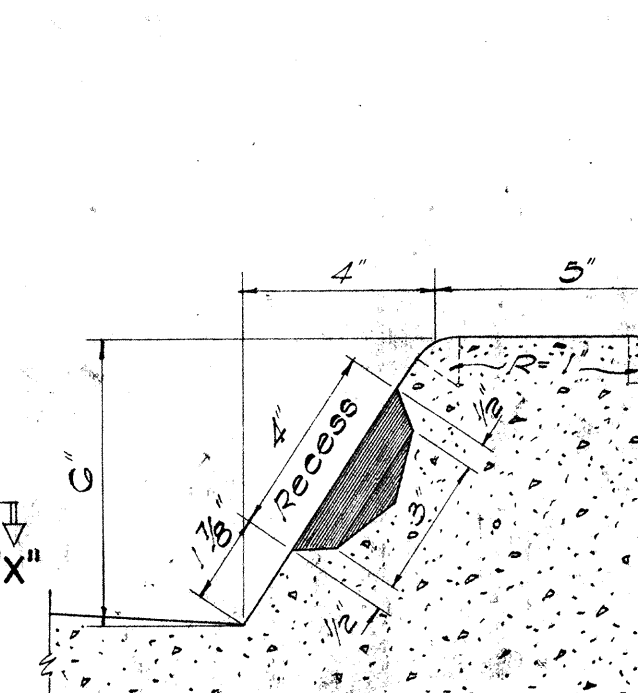
SECTION "C-C"
TYPE "AG" & "BG" CURB



SECTION "Y-Y"
TYPE "C" CURB

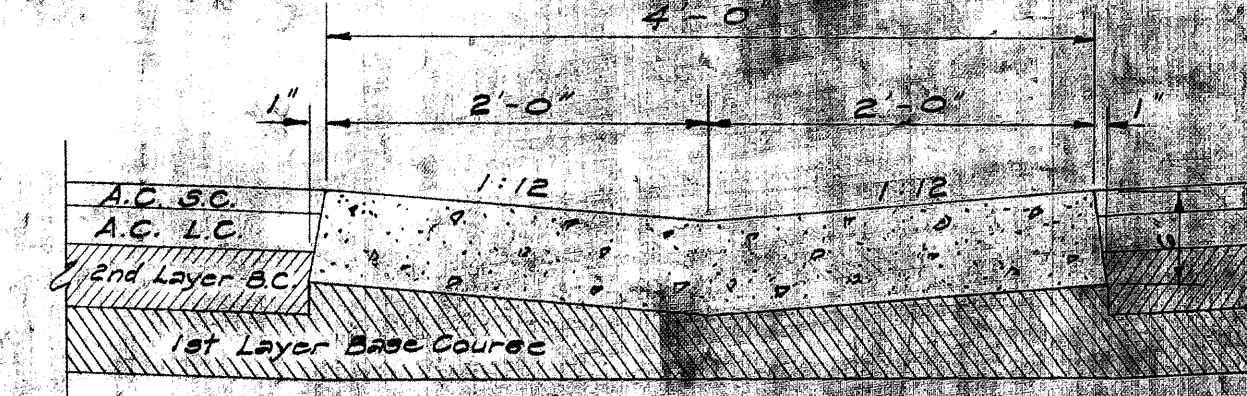


ELEVATION
SCALE: 3" = 1'-0"



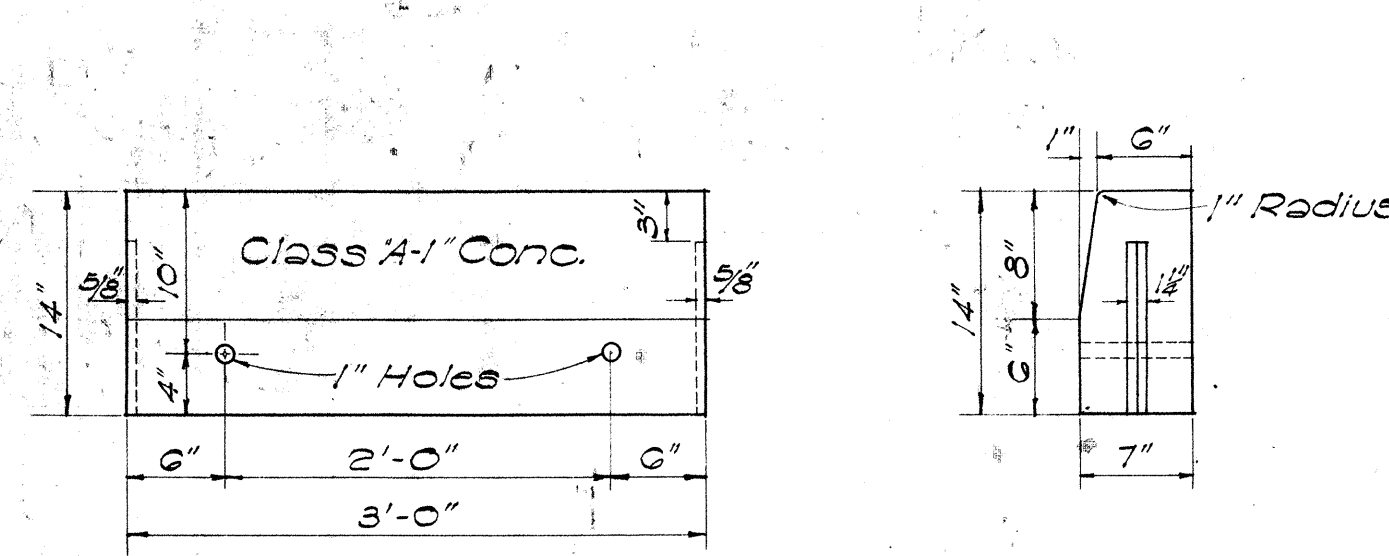
SECTION "Z-Z"
TYPE "CG" CURB

- 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.

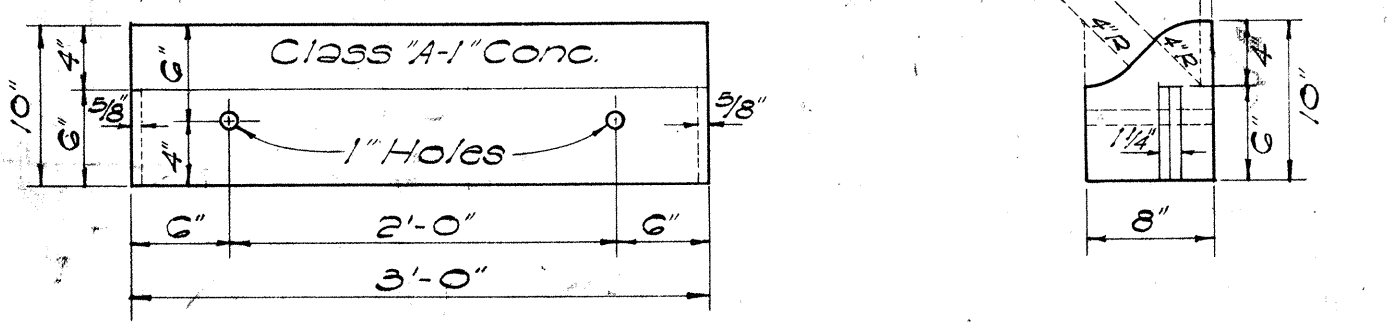


TYPE "G" GUTTER
SCALE: 1" = 1'-0"

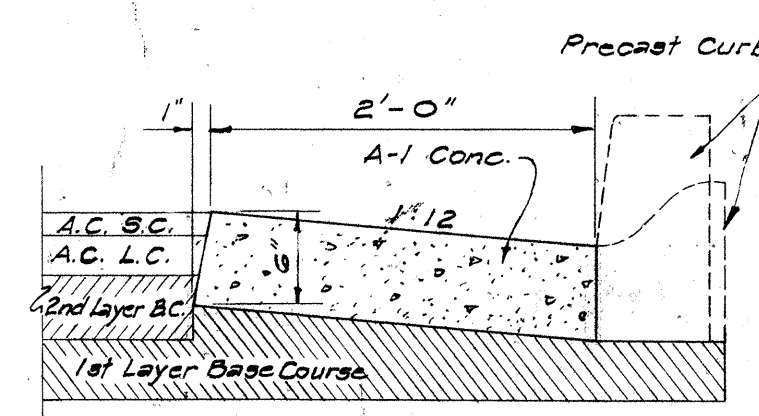
DETAILS OF CAST-IN-PLACE CONC. CURBS AND GUTTERS



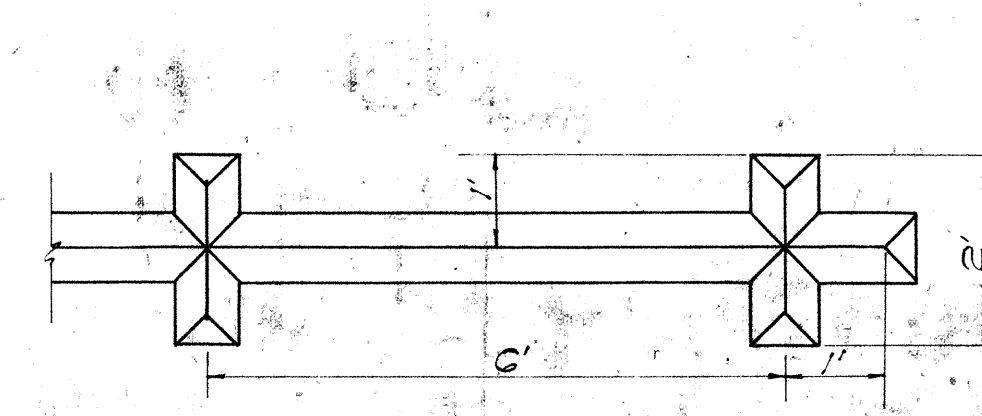
FRONT ELEV. END ELEV.
PRECAST CONC. CURB
SCALE: 1" = 1'-0"



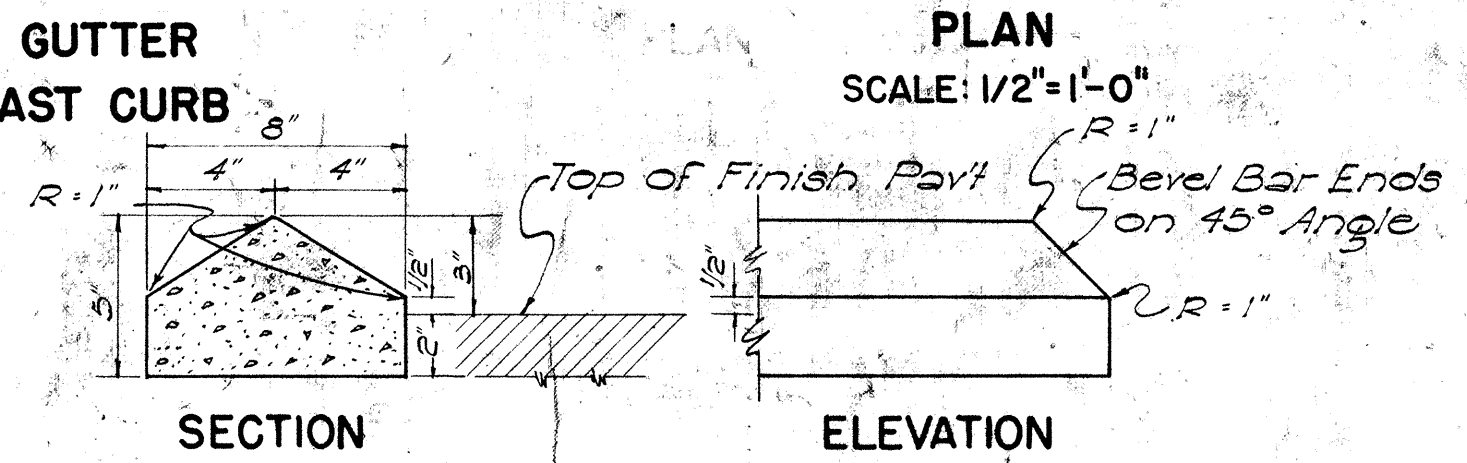
FRONT ELEV. END ELEV.
PRECAST CONC. ROLL CURB
SCALE: 1" = 1'-0"



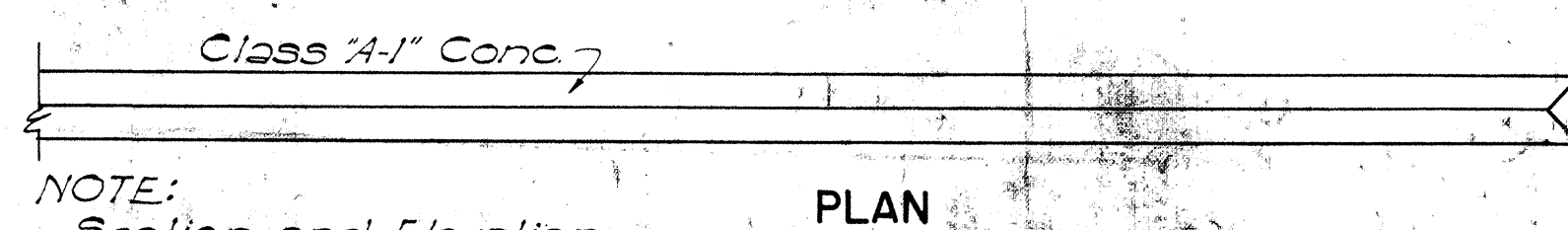
TYPE "F" GUTTER
FOR PRECAST CURB



PLAN
SCALE: 1/2" = 1'-0"

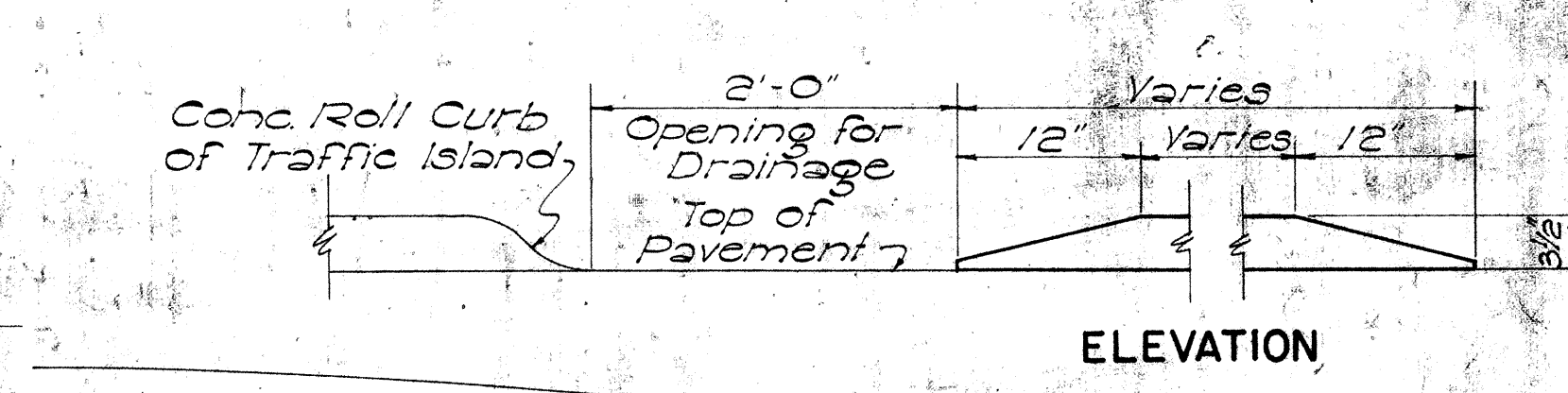


SECTION
RAISED TRAFFIC BARS
SCALE: 2" = 1'-0"

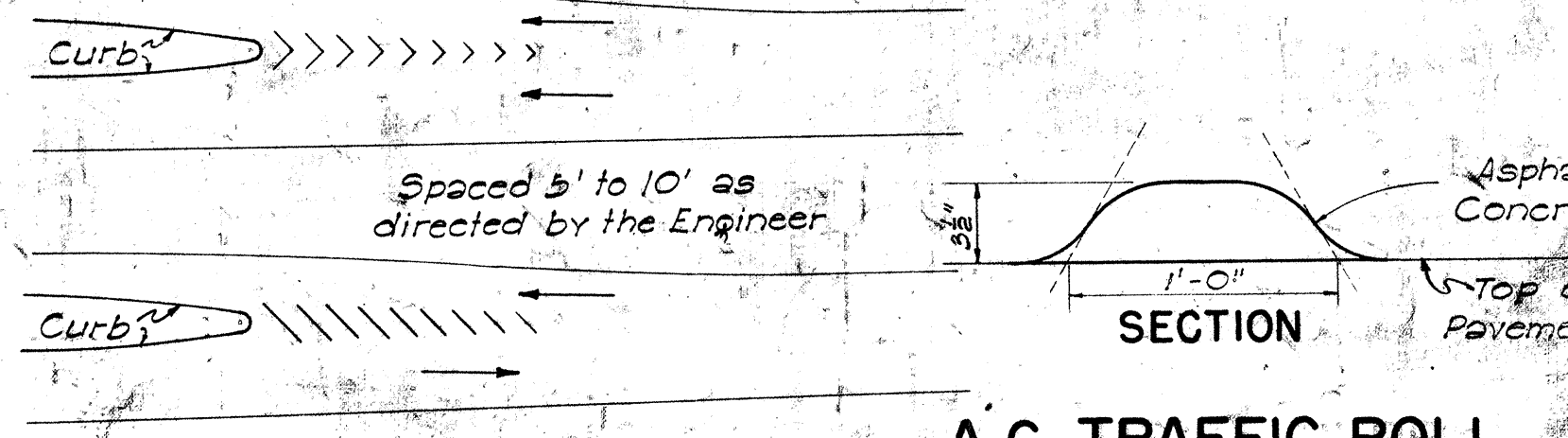


PLAN
RAISED JIGGLE BARS
SCALE: 1/2" = 1'-0"

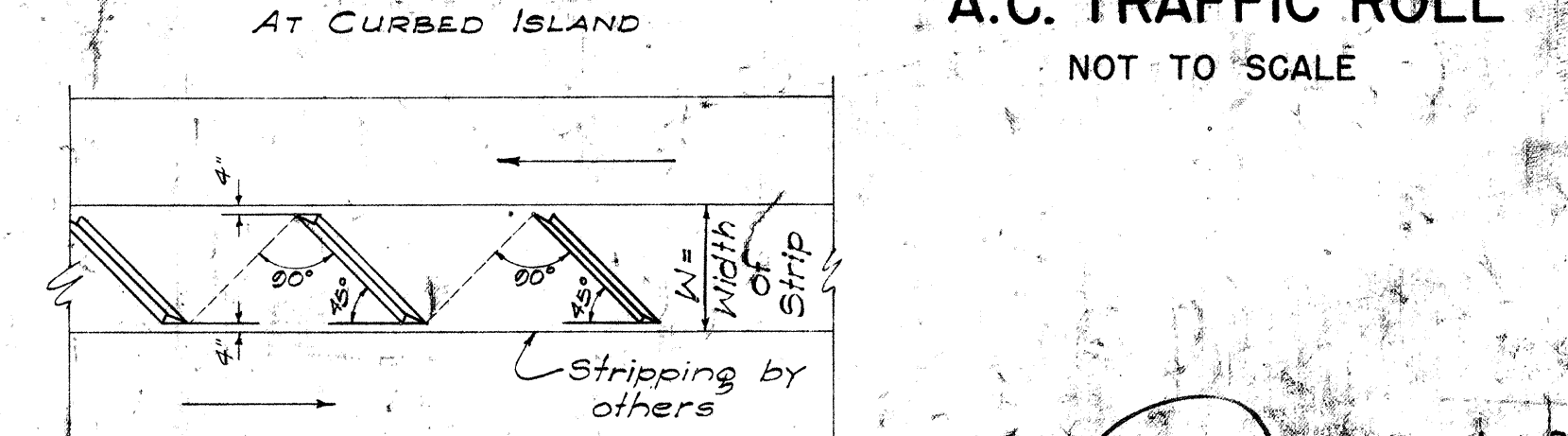
NOTE:
Section and Elevation for Jiggle Bars are same as the Traffic Bars.



ELEVATION



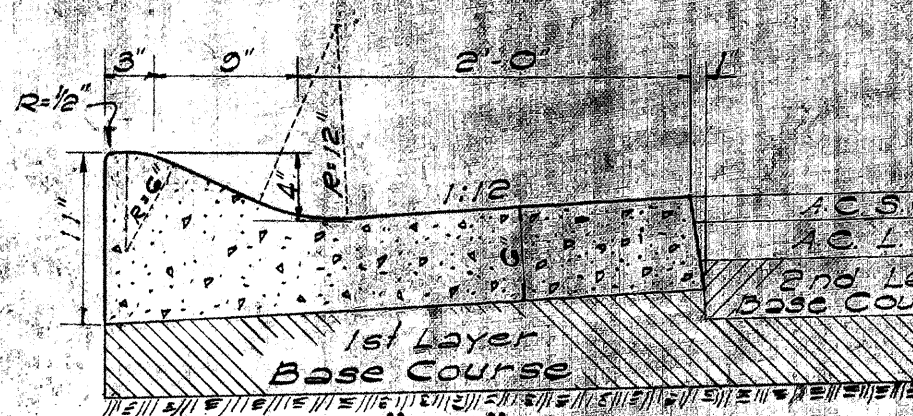
SECTION
A.C. TRAFFIC ROLL
NOT TO SCALE



AT CURBED ISLAND
MEDIAN STRIP
LAYOUT OF JIGGLE BARS
NOT TO SCALE



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



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

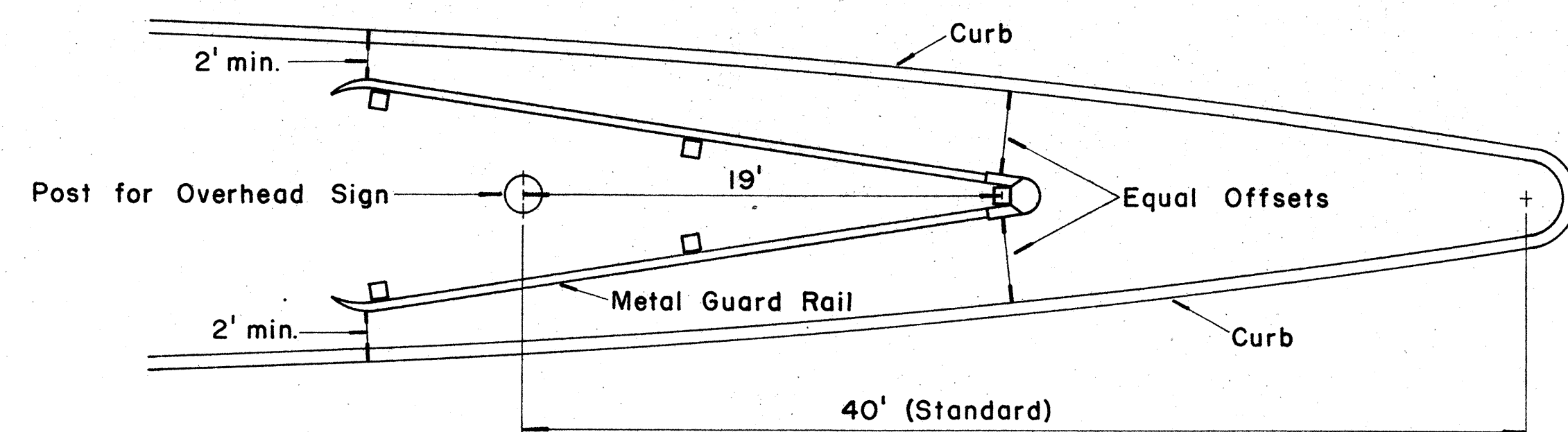
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
CONCRETE CURBS,
CONCRETE CURBS & GUTTERS
SCALES AS NOTED

SHEET NO. OF SHEETS

"E" and "EG" Curbs have been revised 7-25-57
"G" and "F" Gutters have been added 9-22-61

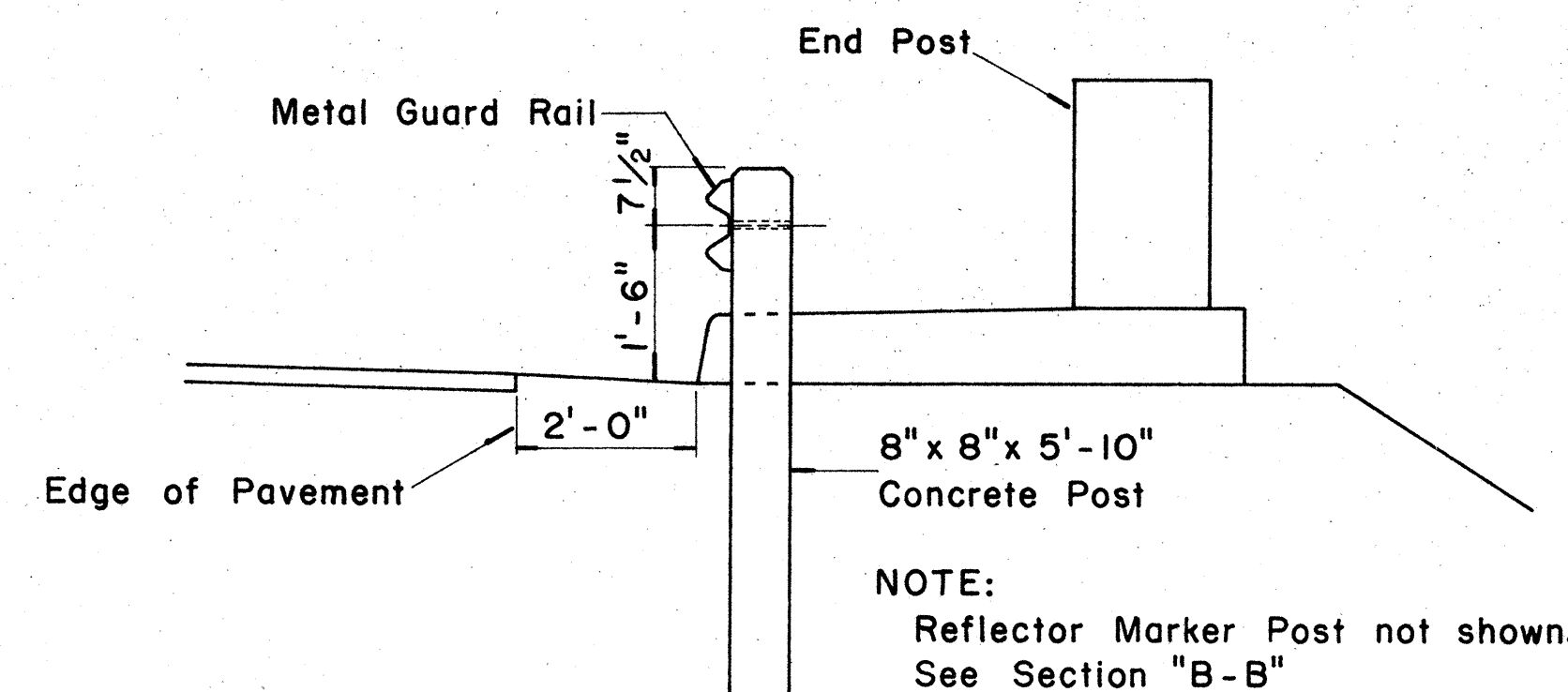
DESIGNED BY: [blank]
CHECKED BY: [blank]
DATE: [blank]

APPROVED: [signature]
DATE: Aug. 25, 1957
STATE HIGHWAY ENGINEER



INSTALLATION OF METAL GUARD RAIL FOR OVERHEAD SIGNS

Scale: $\frac{3}{16}" = 1' - 0"$



SECTION "A-A"

Scale: $\frac{1}{2}" = 1' - 0"$

NOTE: 50' Minimum Flare

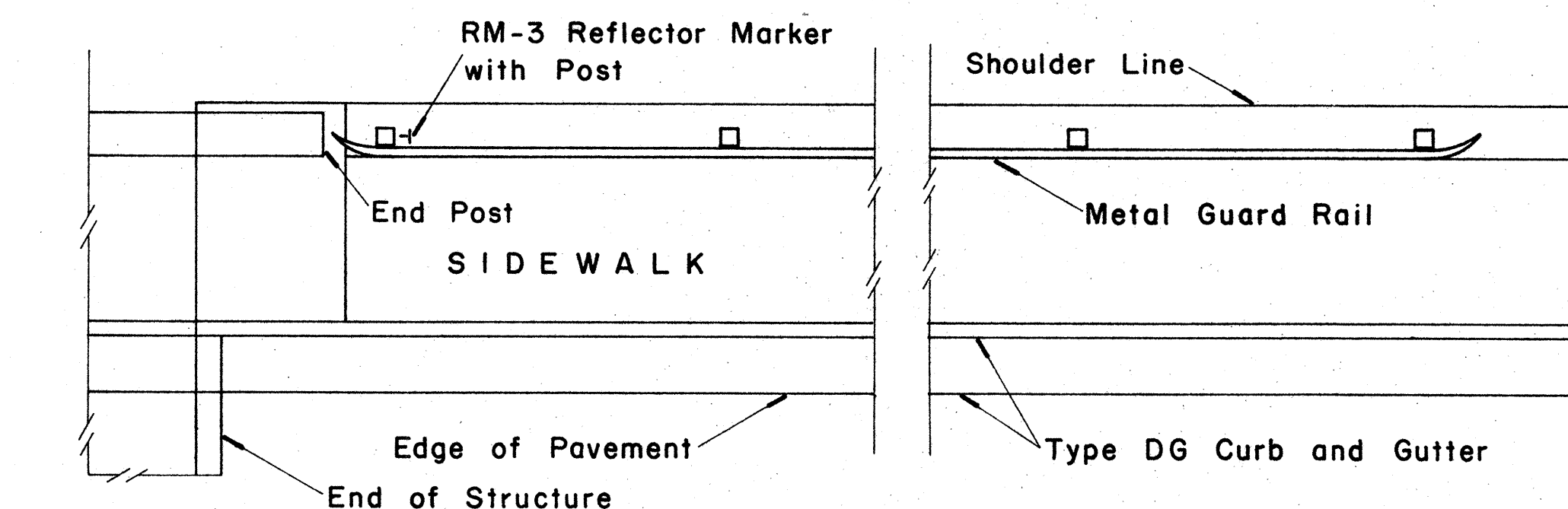
X	Y					
	W=3'	W=4'	W=5'	W=6'	W=7'	W=8'
12.5	0.19	0.16	0.14	0.12	0.09	0.08
25.0	0.75	0.64	0.55	0.49	0.35	0.32
37.5	1.69	1.44	1.25	1.10	0.78	0.72
50.0	3.00	2.56	2.22	1.96	1.38	1.28
62.5		4.00	3.47	3.06	2.16	2.00
75.0			5.00	4.41	3.11	2.85
87.5				6.00	4.23	3.92
100.0					5.53	5.12
112.5					7.00	6.48
125.0						8.00

W = GUARD RAIL FLARE

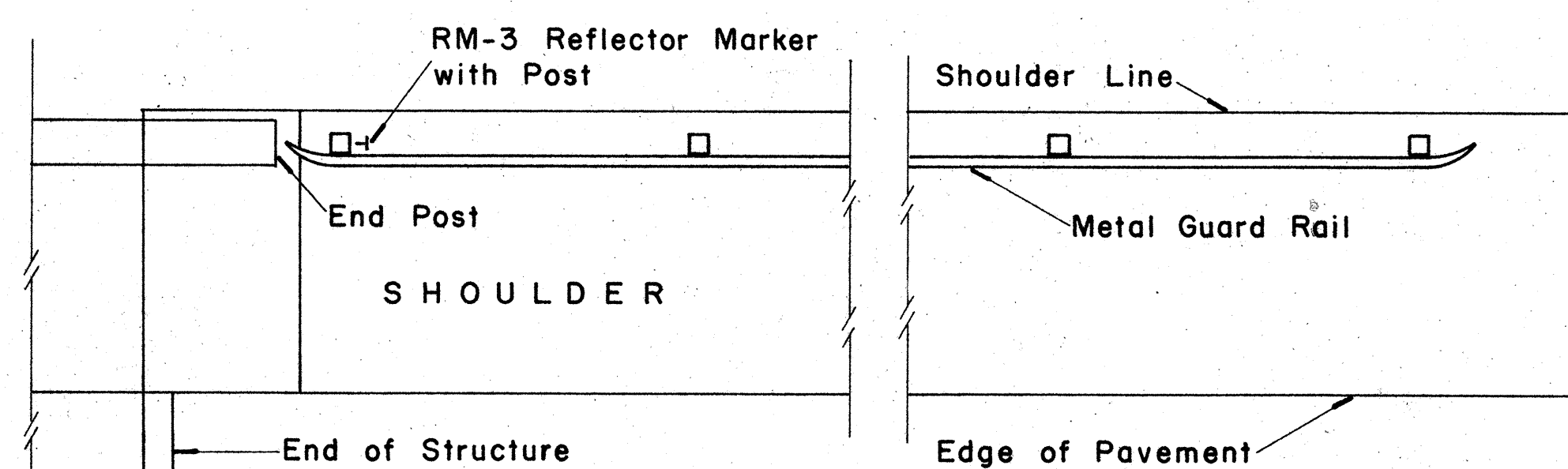
X = DISTANCE FROM POST AT BRIDGE TO OFFSET POINTS

Y = GUARD RAIL FLARE OFFSET

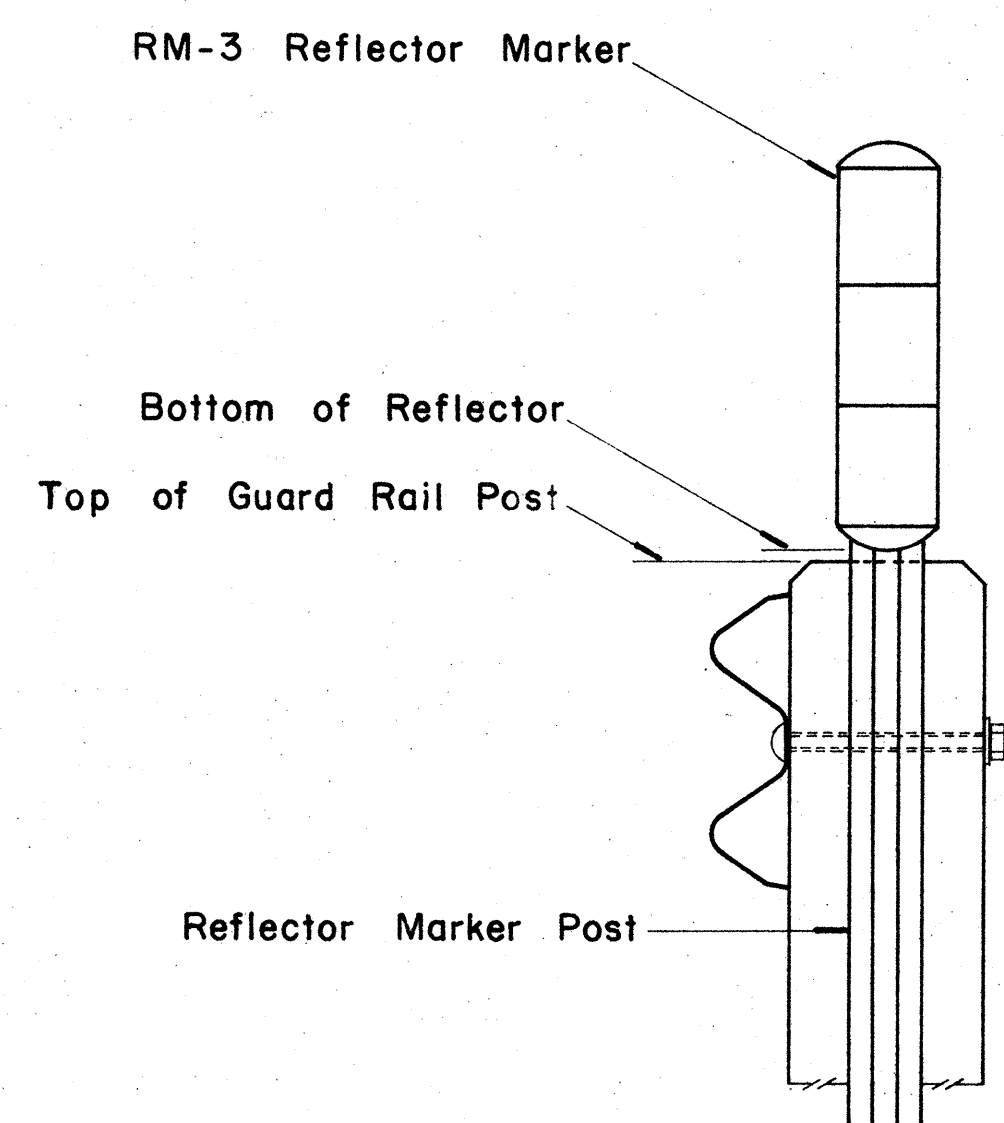
GUARD RAIL OFFSET



NON-MOUNTABLE CURB CARRIED THROUGH STRUCTURE



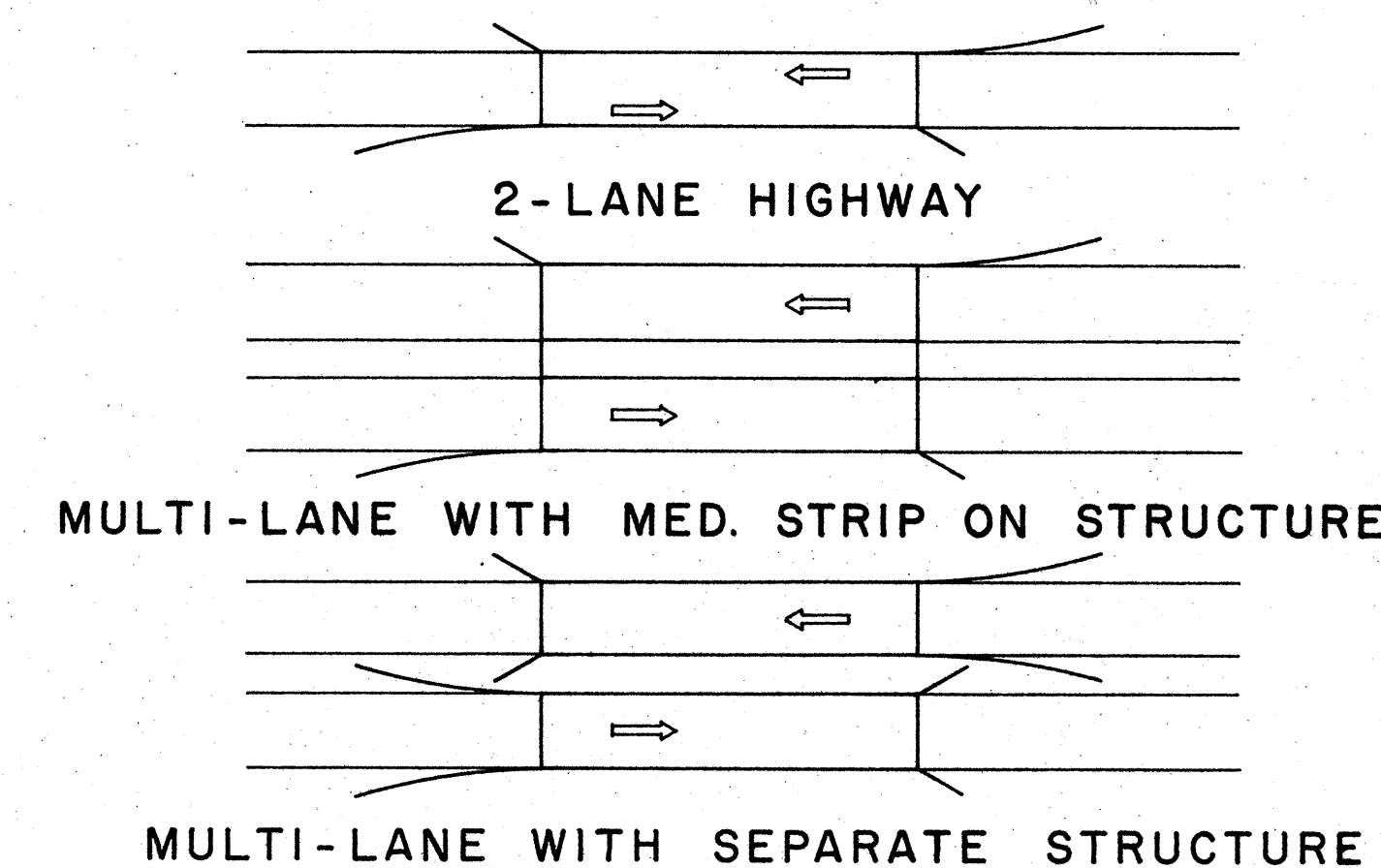
SHOULDER CARRIED THROUGH STRUCTURE



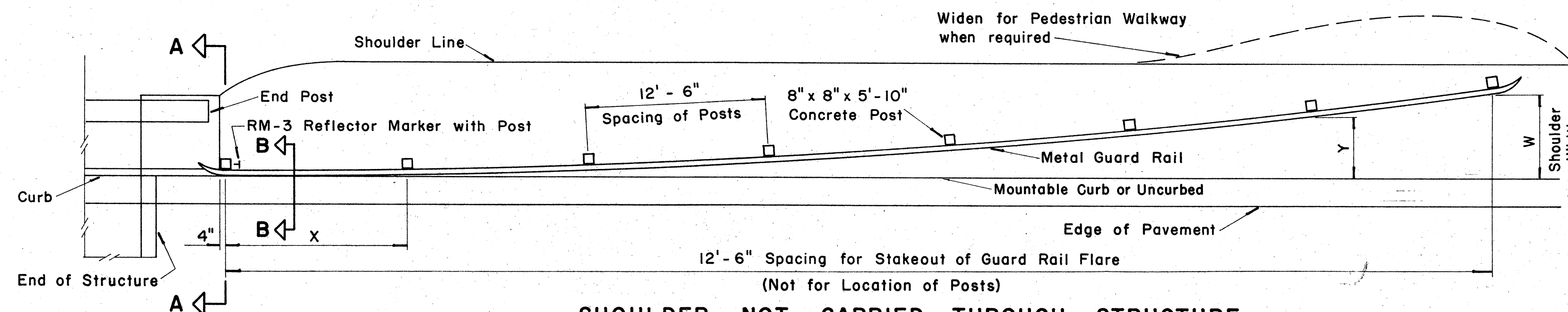
SECTION "B-B"

Scale: $1\frac{1}{2}" = 1' - 0"$

NOTE:
See F.A. Marker and Misc. Sign Detail sheet for details of RM-3 Reflector Marker with Post.



TYPICAL GUARD RAIL FLARES AT STRUCTURE APPROACHES

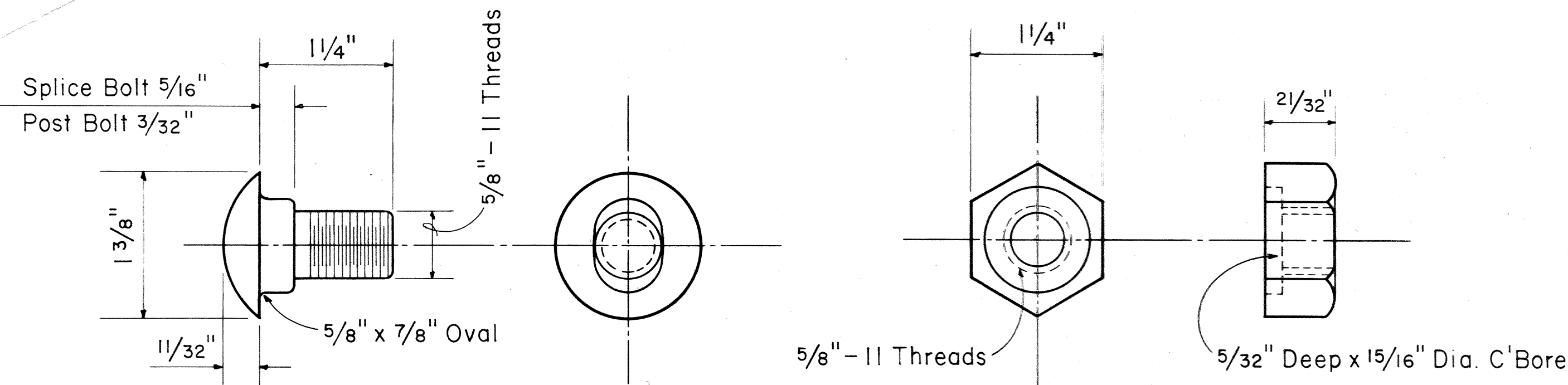


SHOULDER NOT CARRIED THROUGH STRUCTURE

INSTALLATION OF METAL GUARD RAIL FLARE AT STRUCTURES

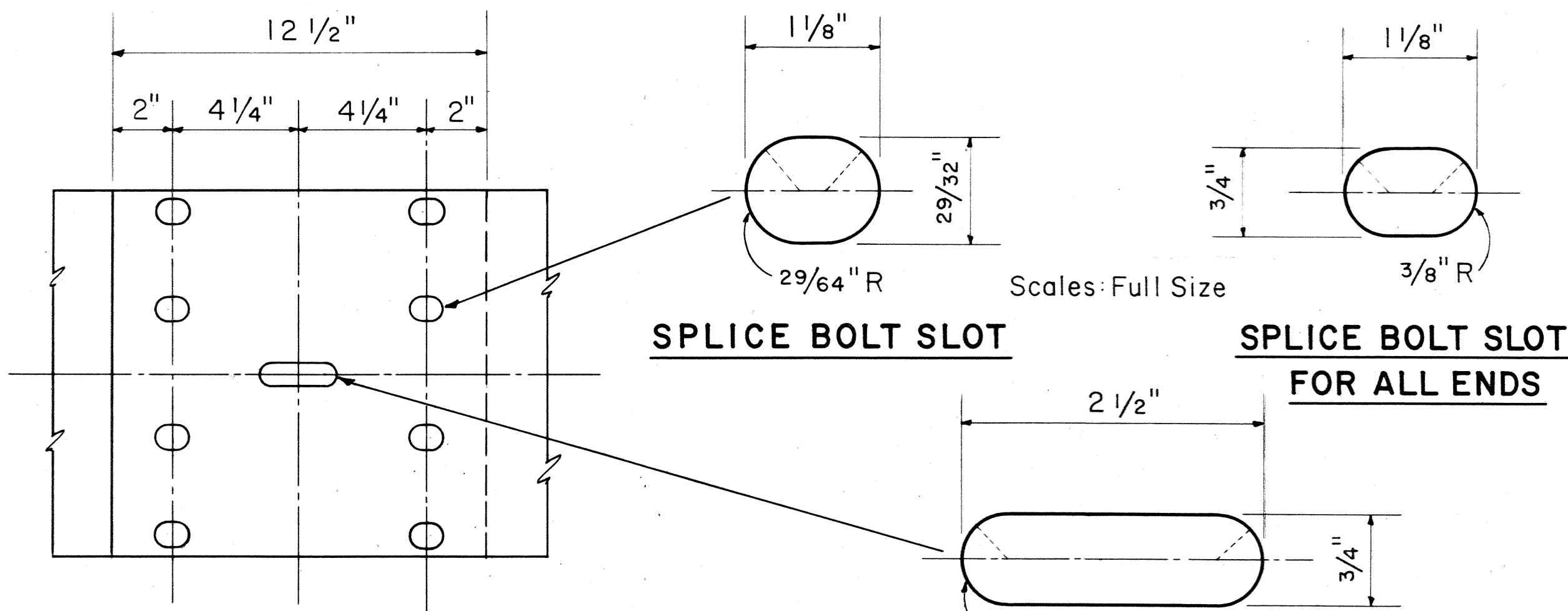
Scale: $\frac{3}{16}" = 1' - 0"$

FED. AID DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	F-090-1(4)	1964	60	177
		SU-0720(6)	1964		



SPLICE BOLT
POST BOLT (Same except for length)
Scale: Full Size

HEXAGON NUT
Scale: Full Size

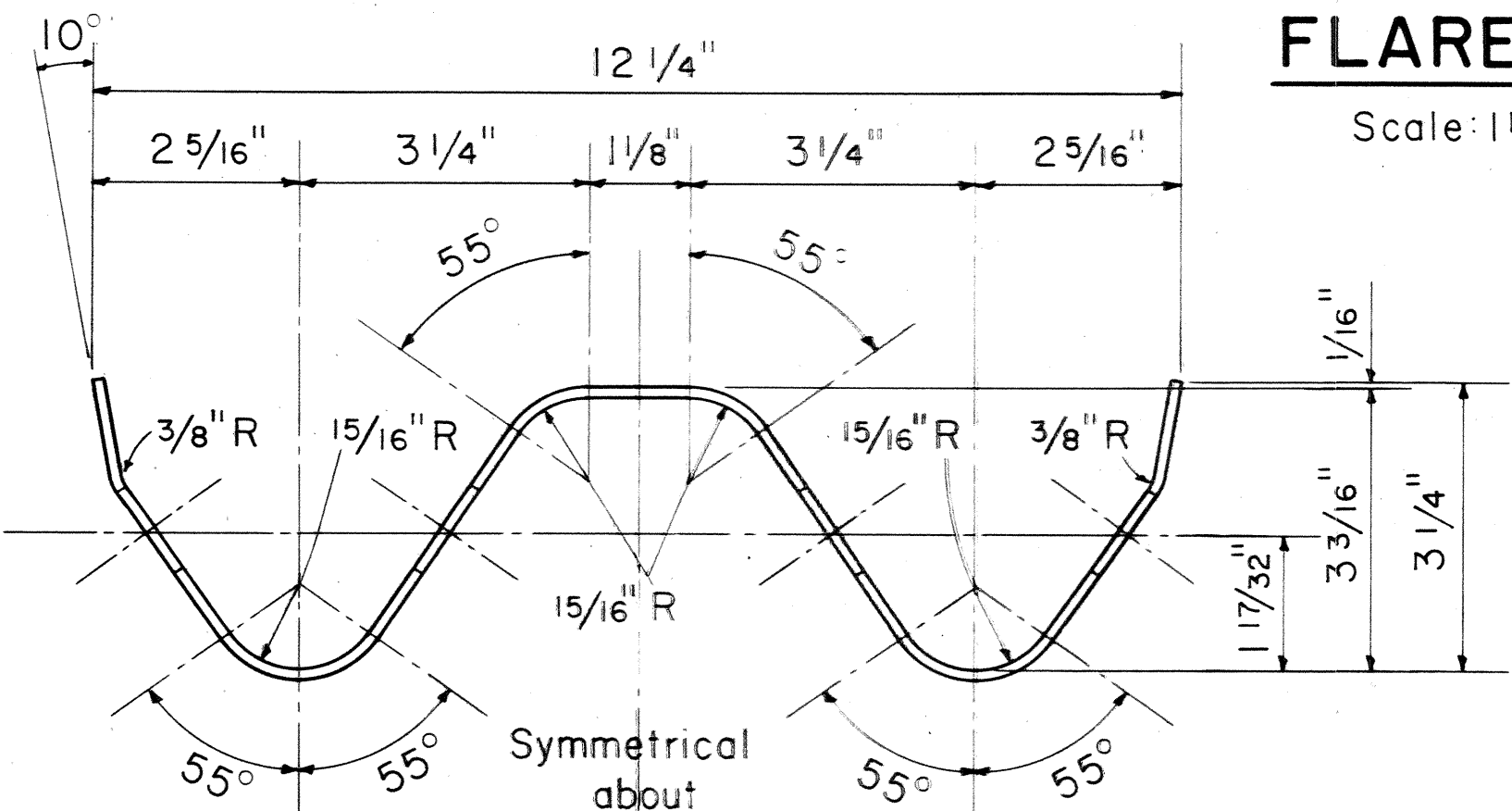


RAIL SPLICE
Scale: 3" = 1' - 0"

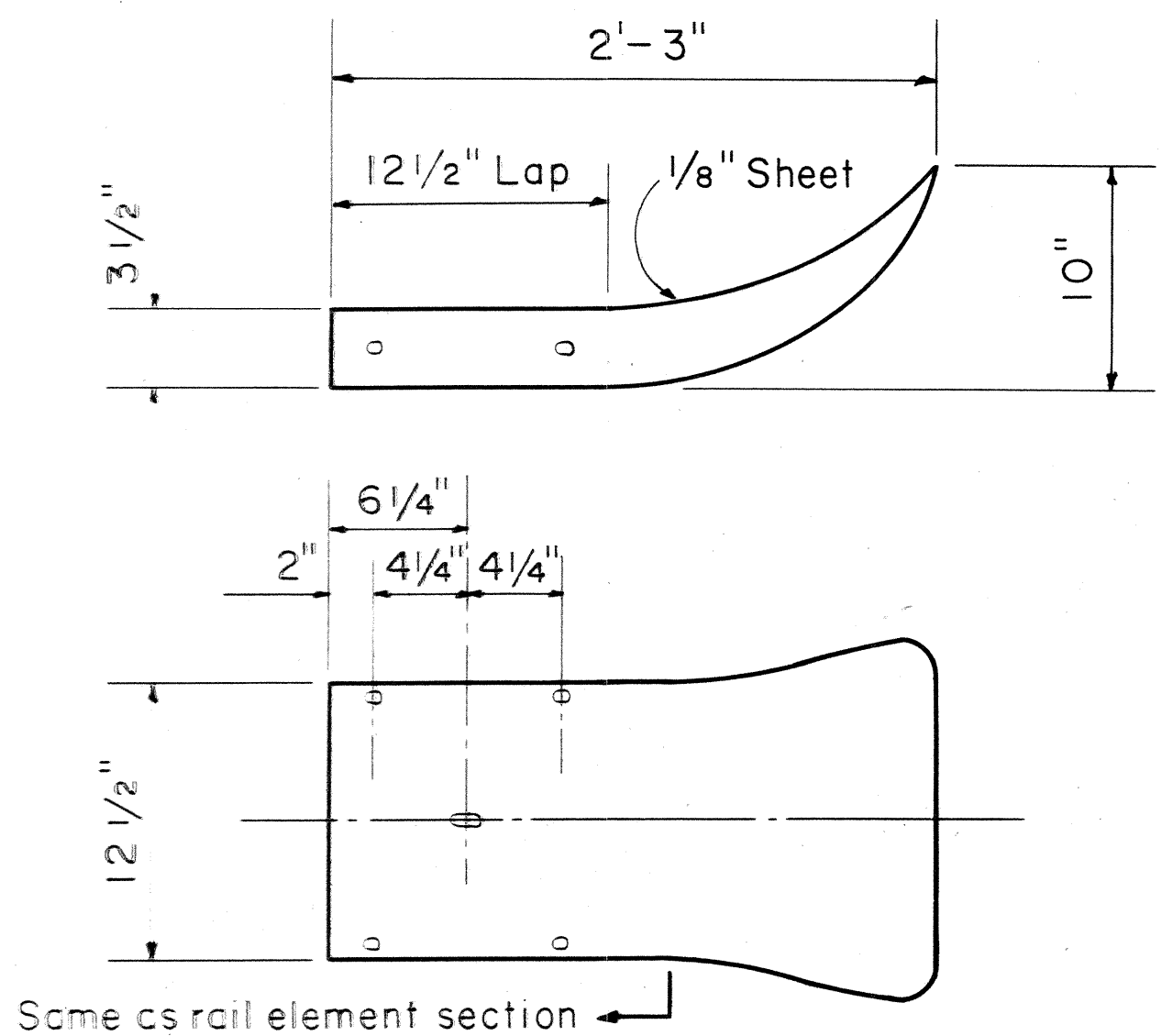
SPLICE BOLT SLOT

SPLICE BOLT SLOT FOR ALL ENDS

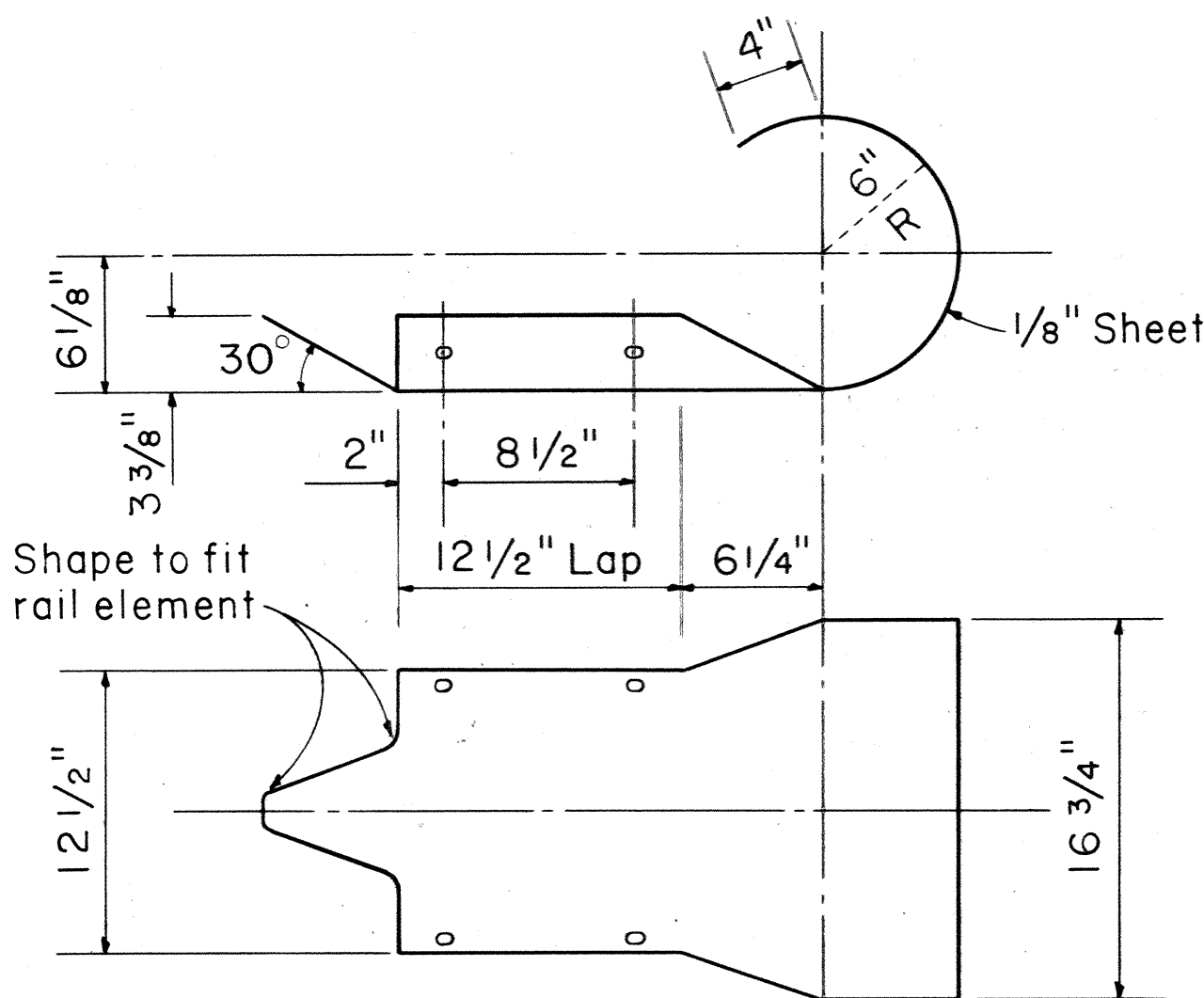
POST BOLT SLOT
Scale: Full Size



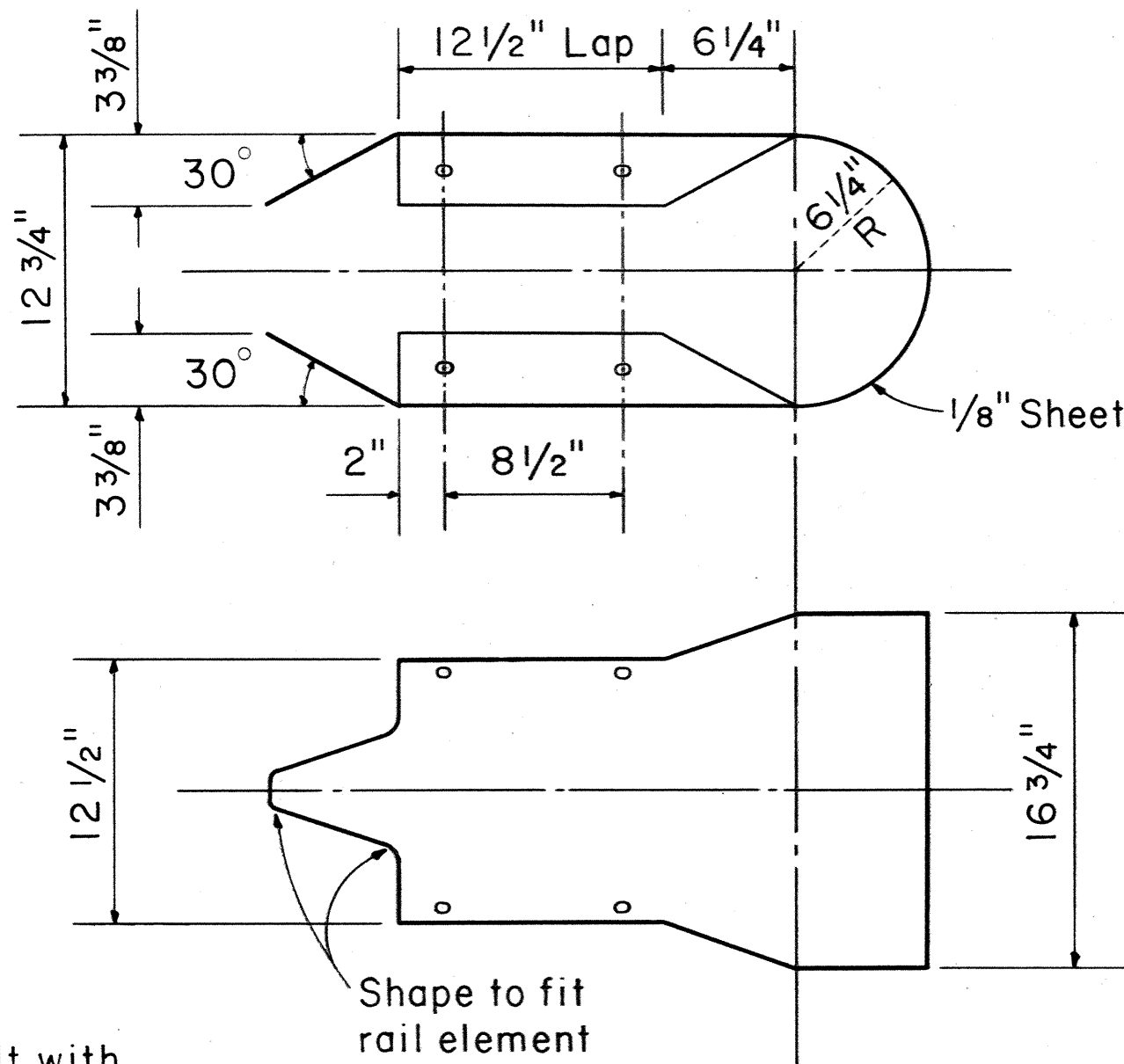
RAIL ELEMENT SECTION
Scale: Half Full Size



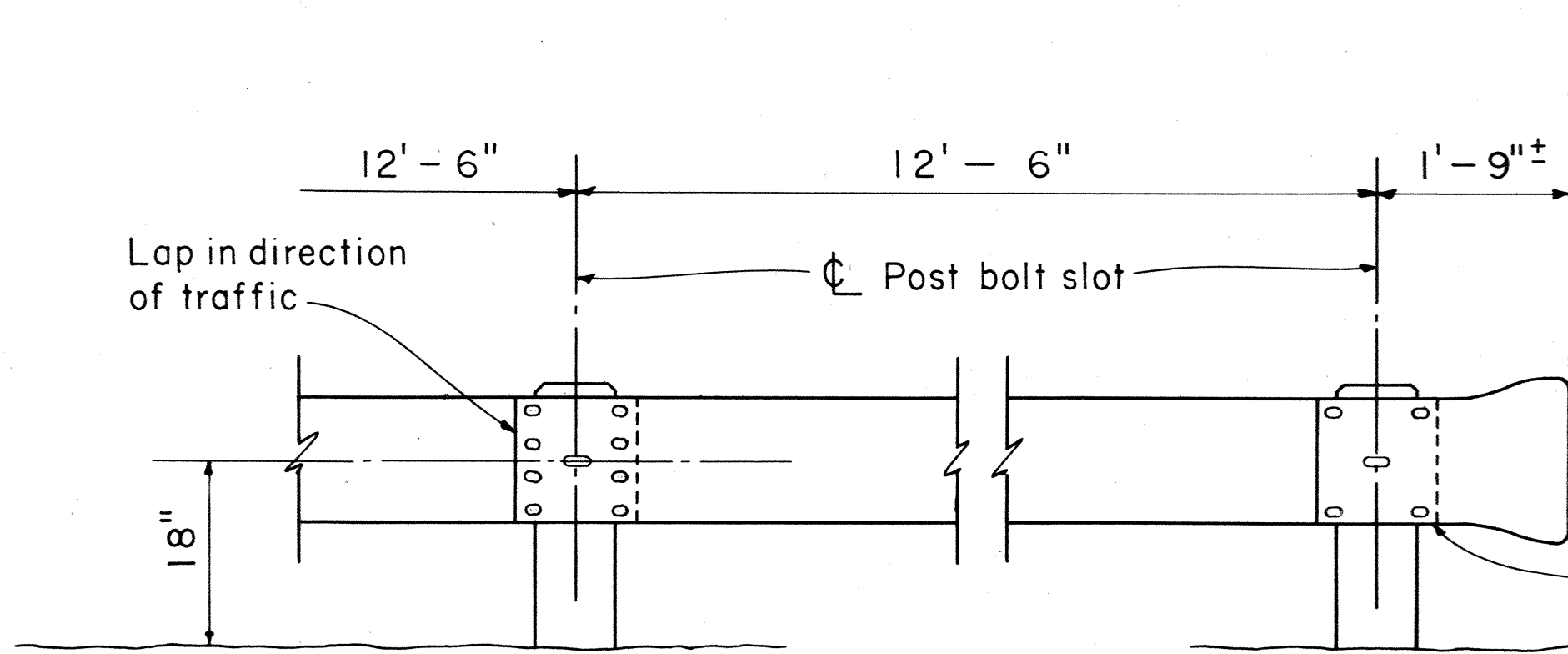
FLARED END
Scale: 1 1/2" = 1' - 0"



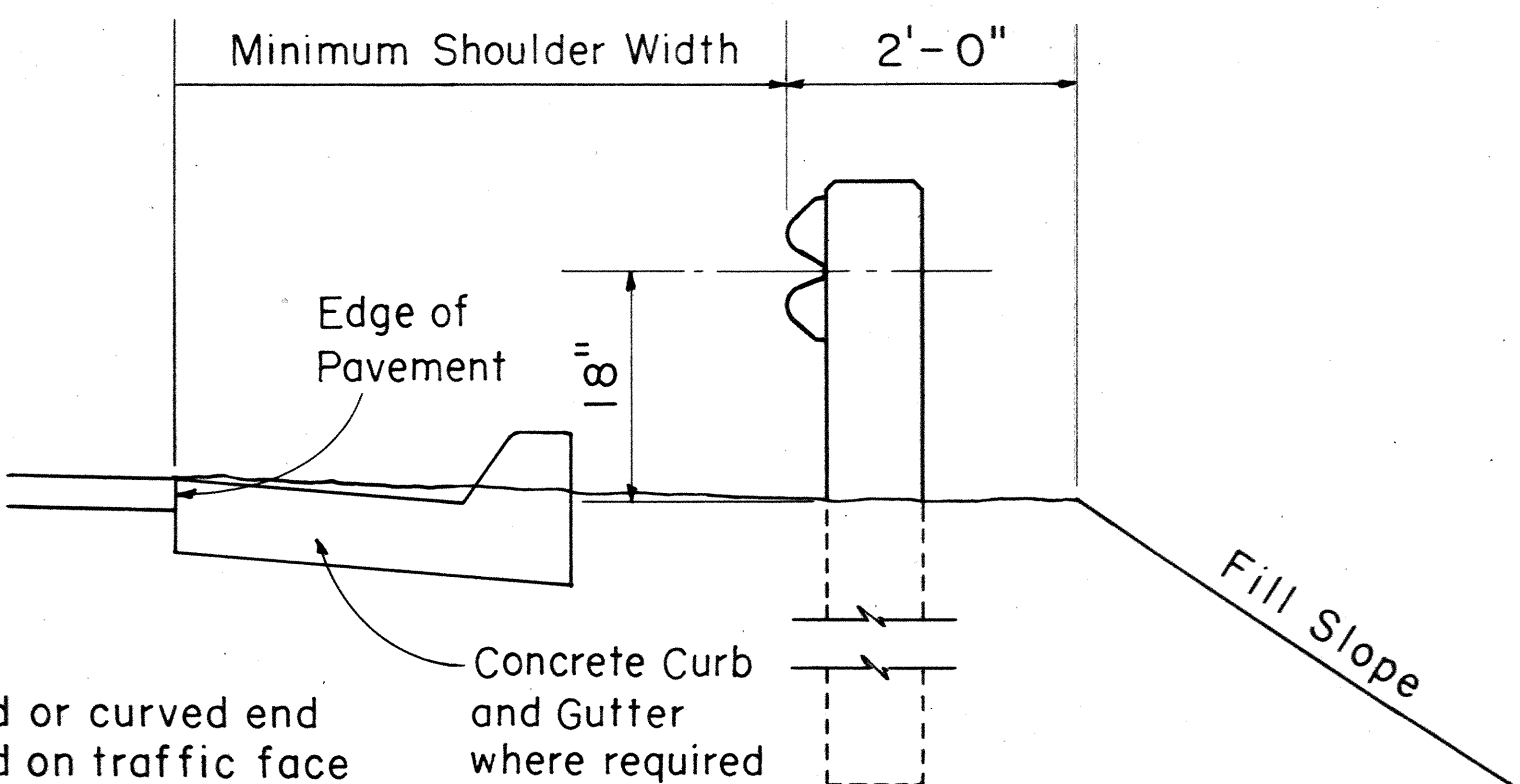
CURVED END
Scale: 1 1/2" = 1' - 0"



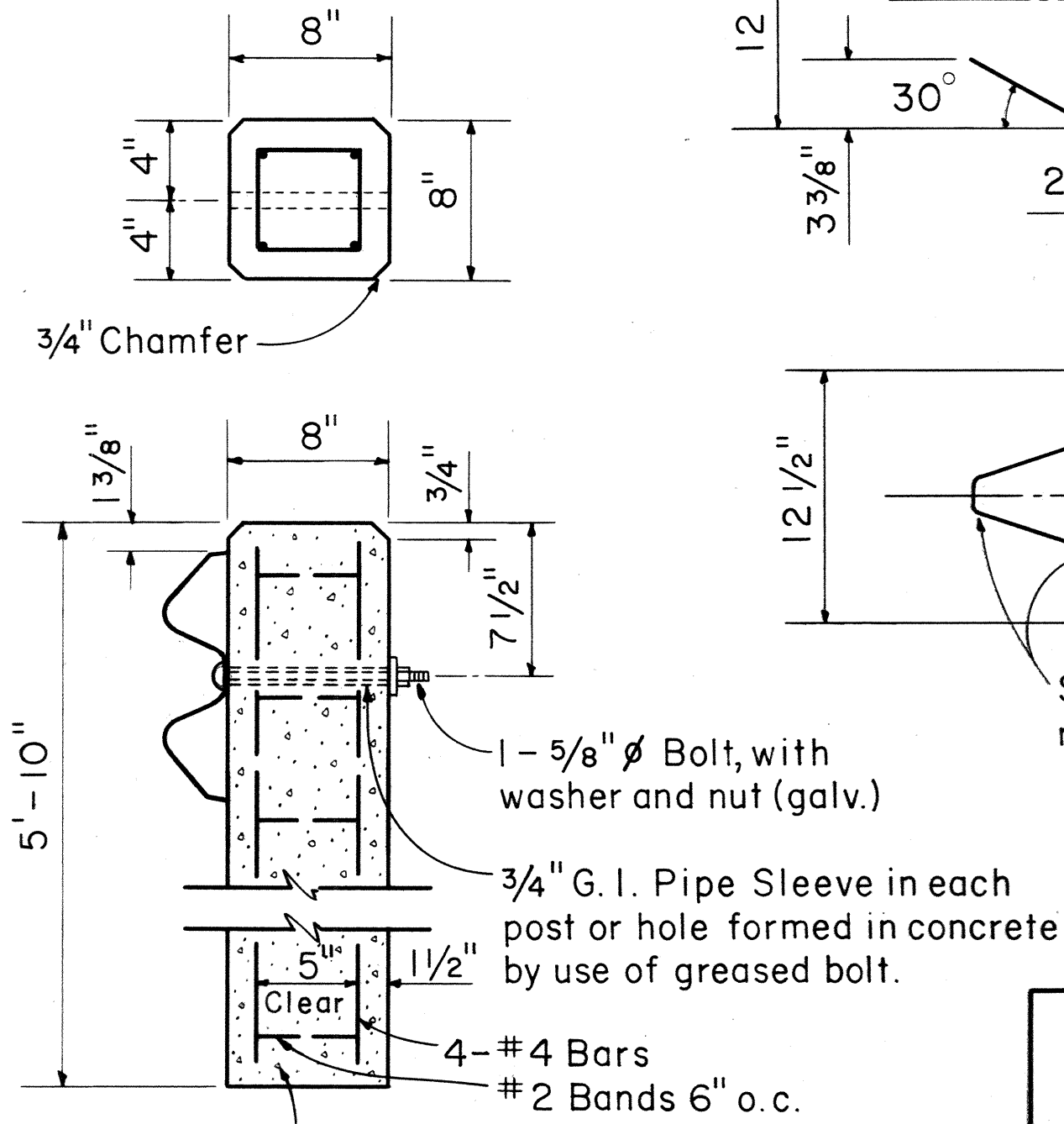
MEDIAN END
Scale: 1 1/2" = 1' - 0"



METAL GUARD RAIL
Scale: 3/4" = 1' - 0"



ELEVATION
Scale: 3/4" = 1' - 0"



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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
METAL GUARD RAIL

Scales: As Noted. Date Feb. 1964
SHEET NO. OF SHEETS

ORIGINAL PLAN	DATE
DESIGNED BY	TRACED BY
NOTED BY	QUANTITIES BY
CHECKED BY	