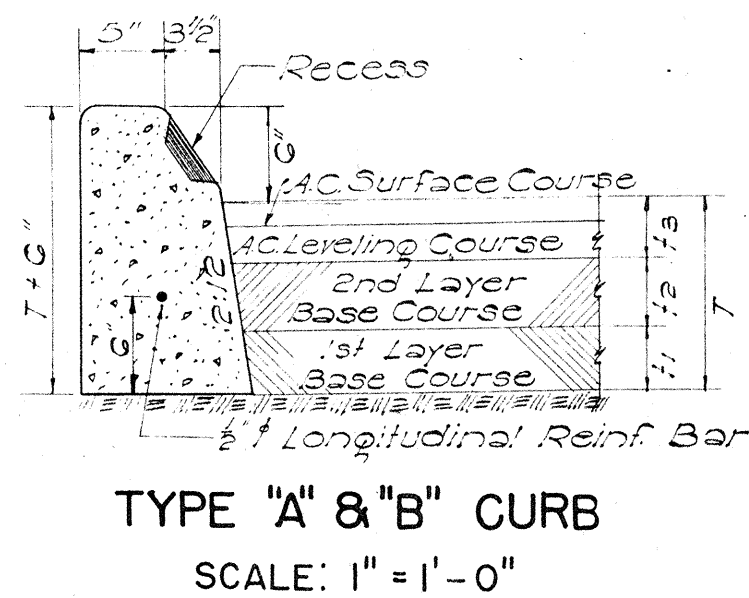
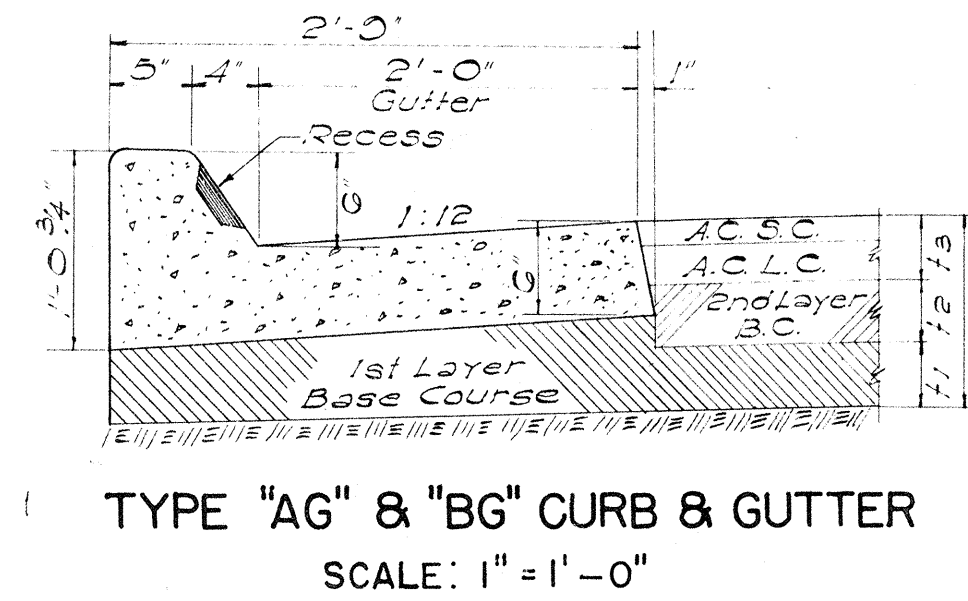


2/17/59

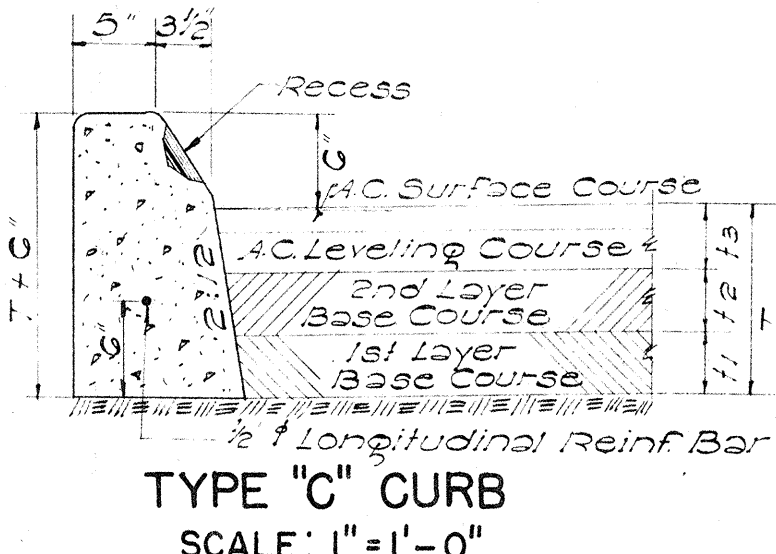
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-100	1953	26	48
		U-063-K1	1963	26	48



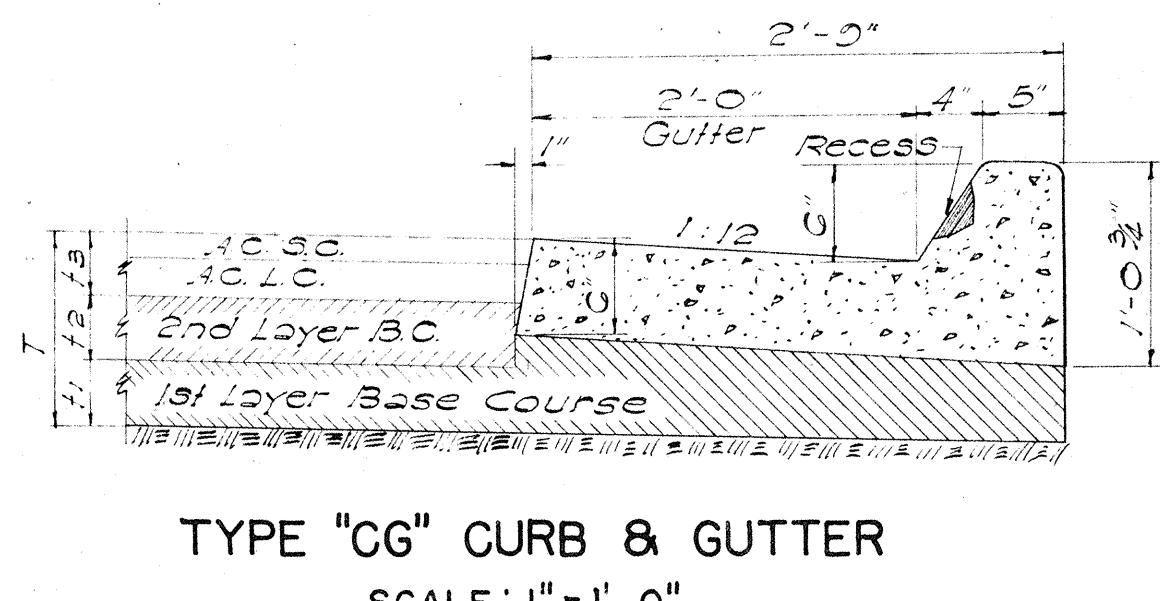
TYPE "A" & "B" CURB
SCALE: 1" = 1'-0"



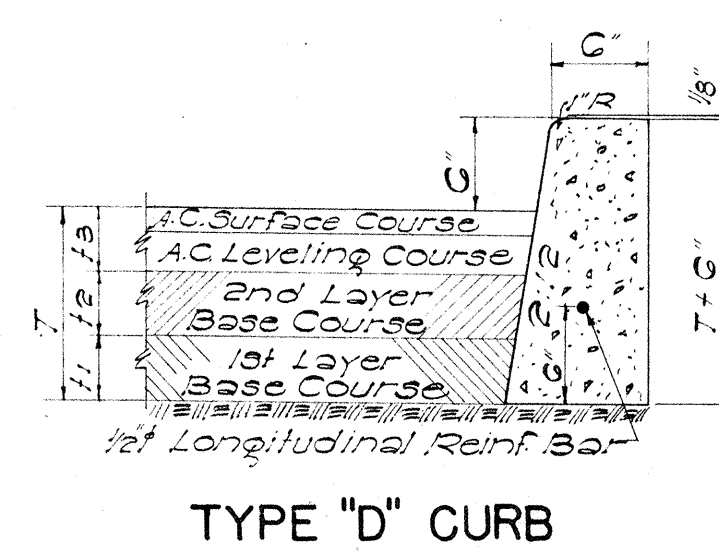
TYPE "AG" & "BG" CURB & GUTTER
SCALE: 1" = 1'-0"



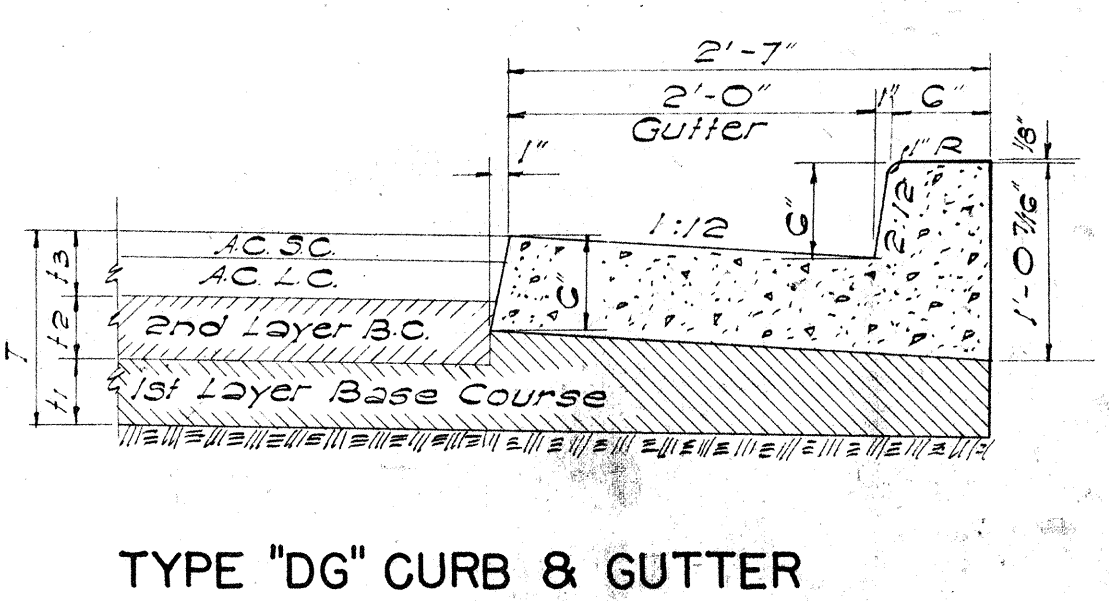
TYPE "C" CURB
SCALE: 1" = 1'-0"



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

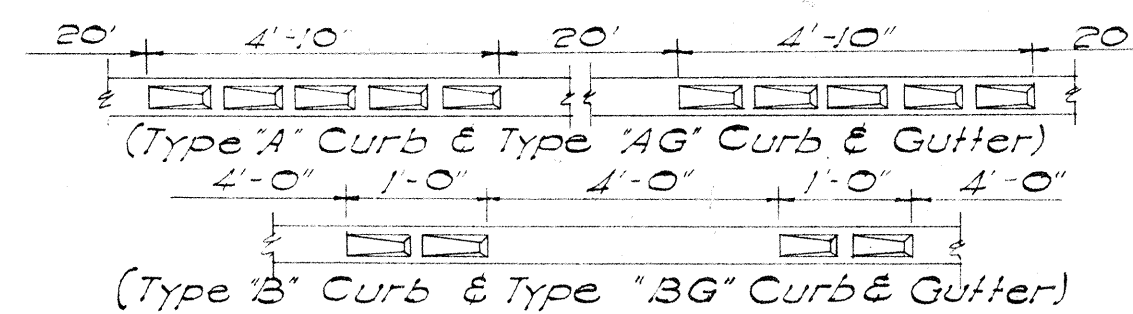


TYPE "D" CURB
SCALE: 1" = 1'-0"

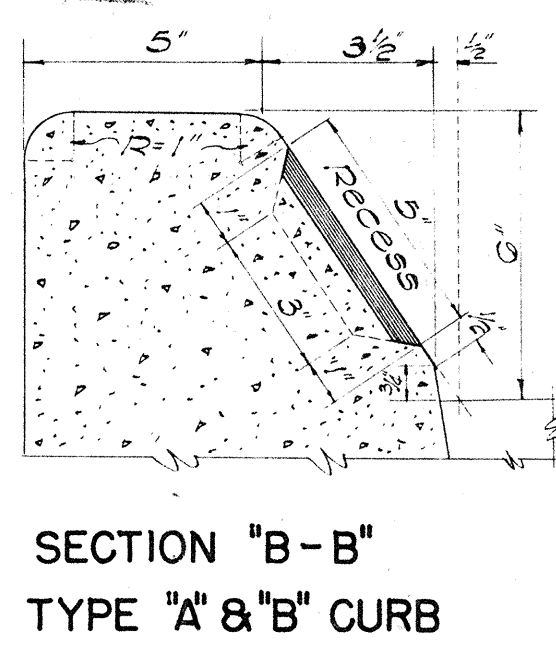


TYPE "DG" CURB & GUTTER
SCALE: 1" = 1'-0"

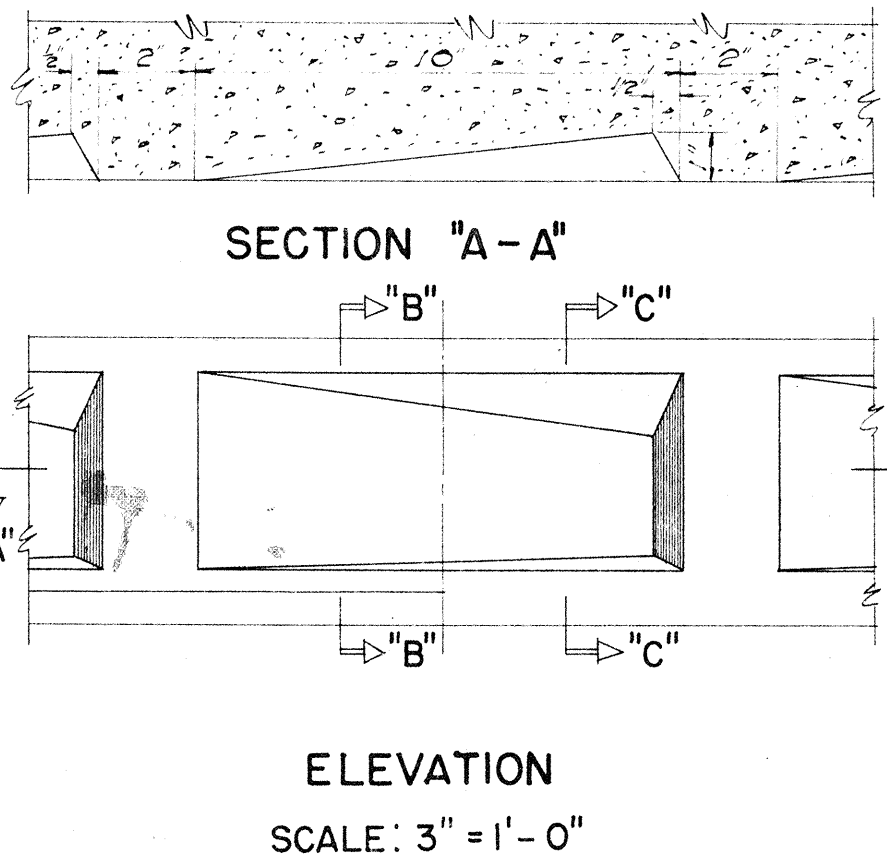
General Note Covering All Types of Curbs:
Occasionally curb rests on first layer
of base course. See typical sections.



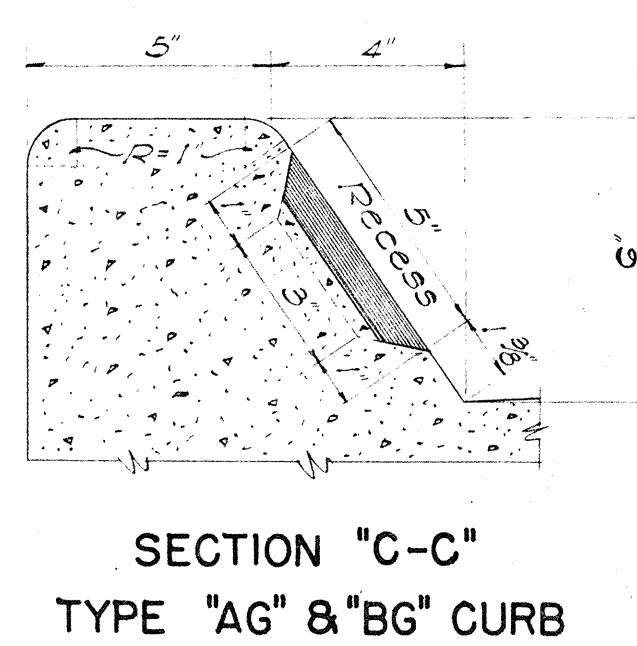
TYPE AND SPACING OF RECESSES



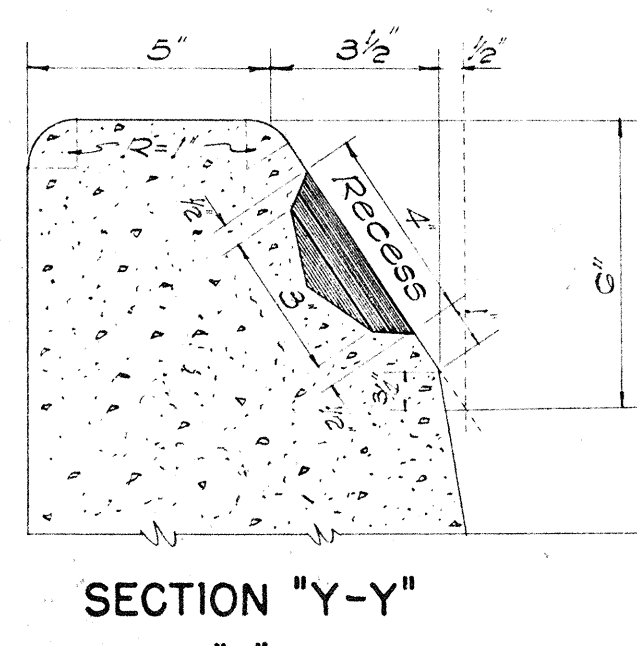
SECTION "B-B"
TYPE "A" & "B" CURB



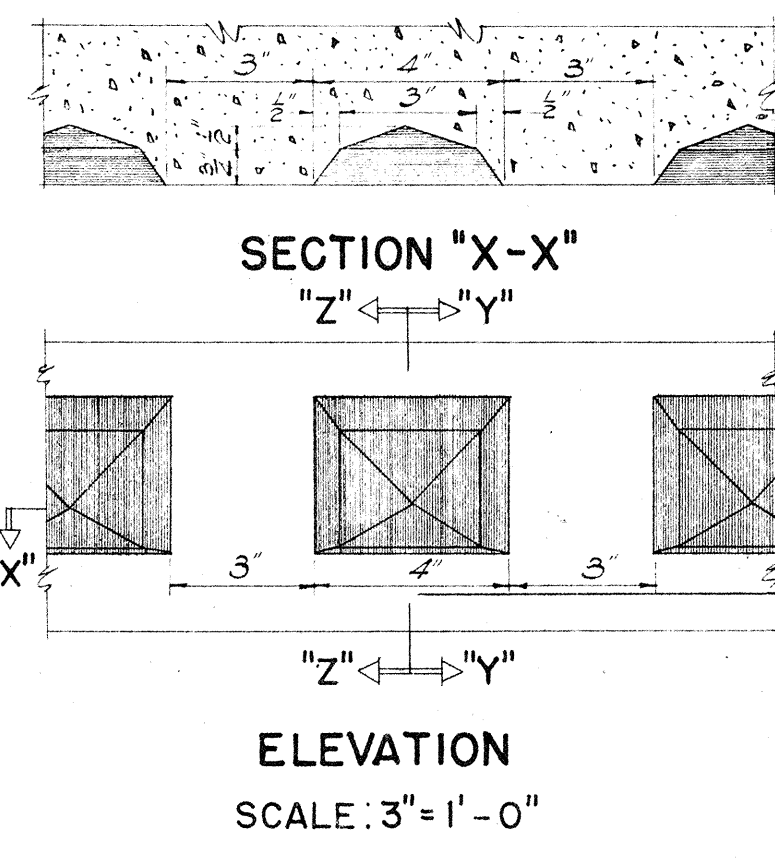
ELEVATION
SCALE: 3" = 1'-0"



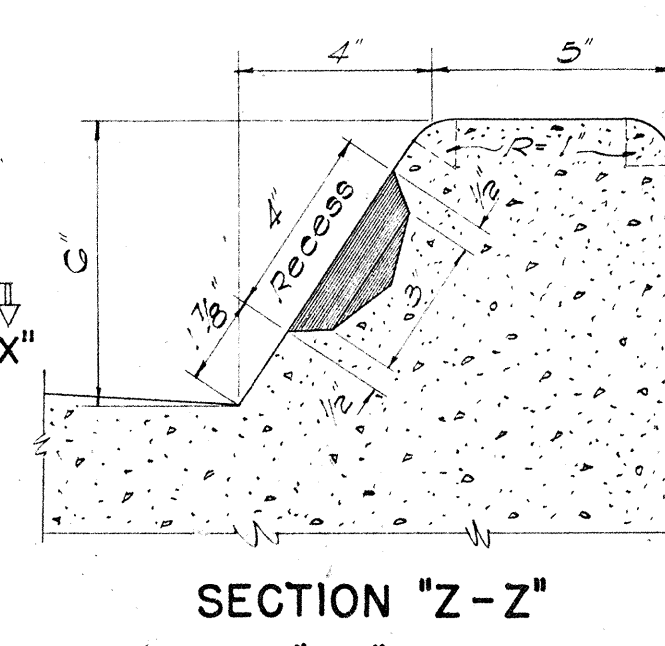
SECTION "C-C"
TYPE "AG" & "BG" CURB



SECTION "Y-Y"
TYPE "C" CURB



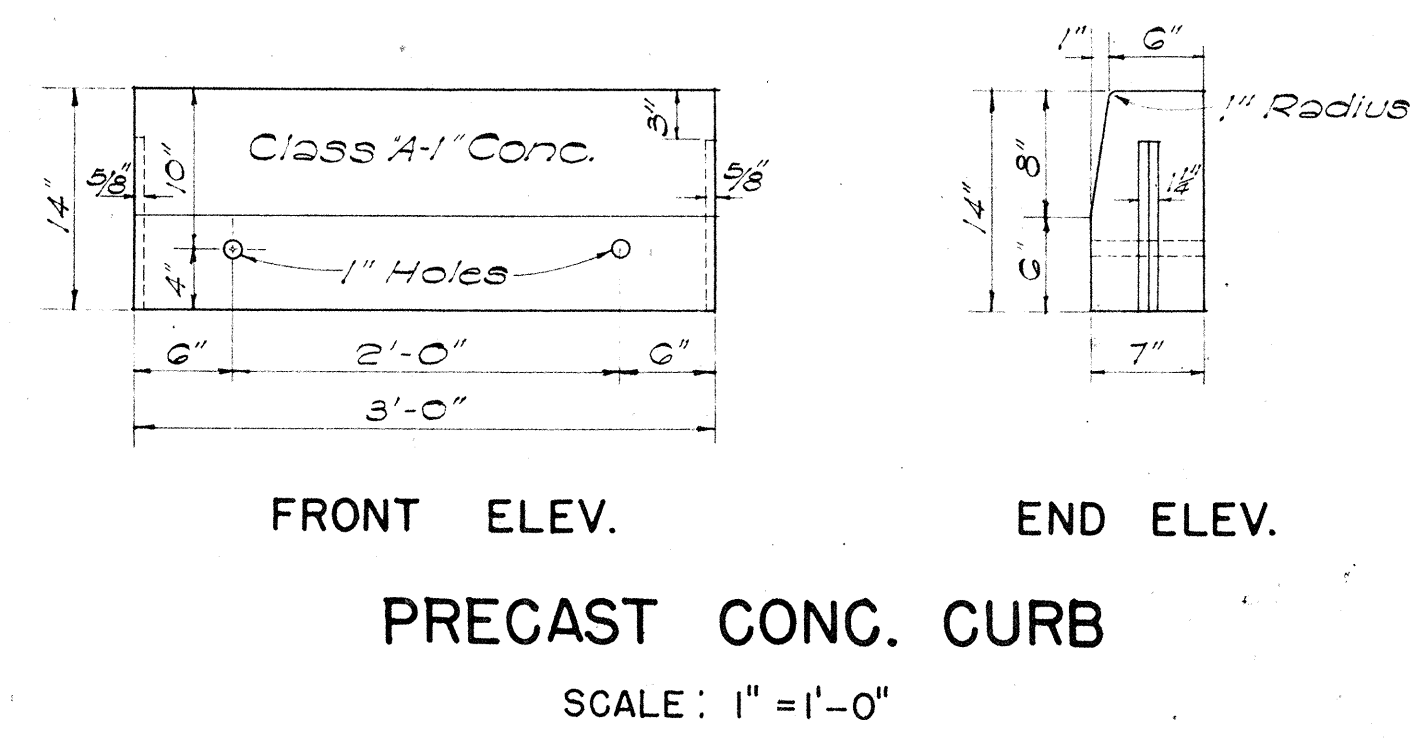
ELEVATION
SCALE: 3" = 1'-0"



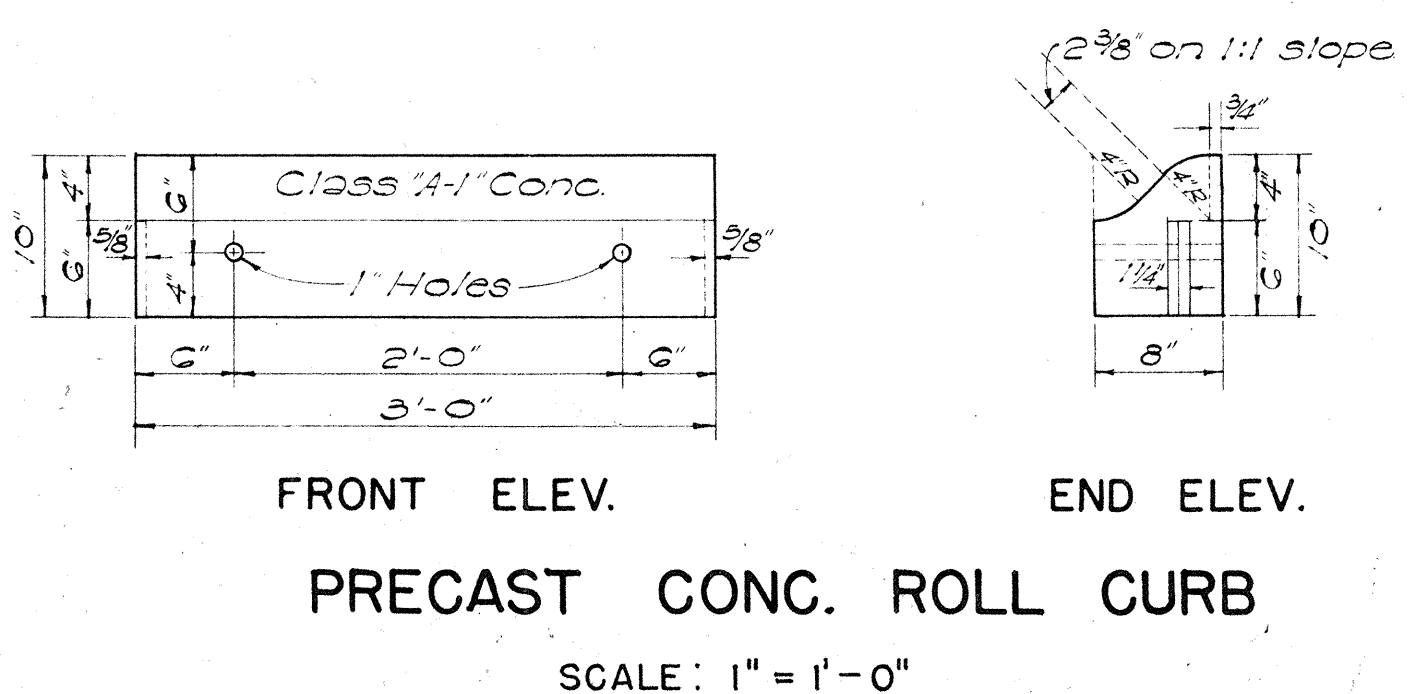
SECTION "Z-Z"
TYPE "CG" CURB

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.

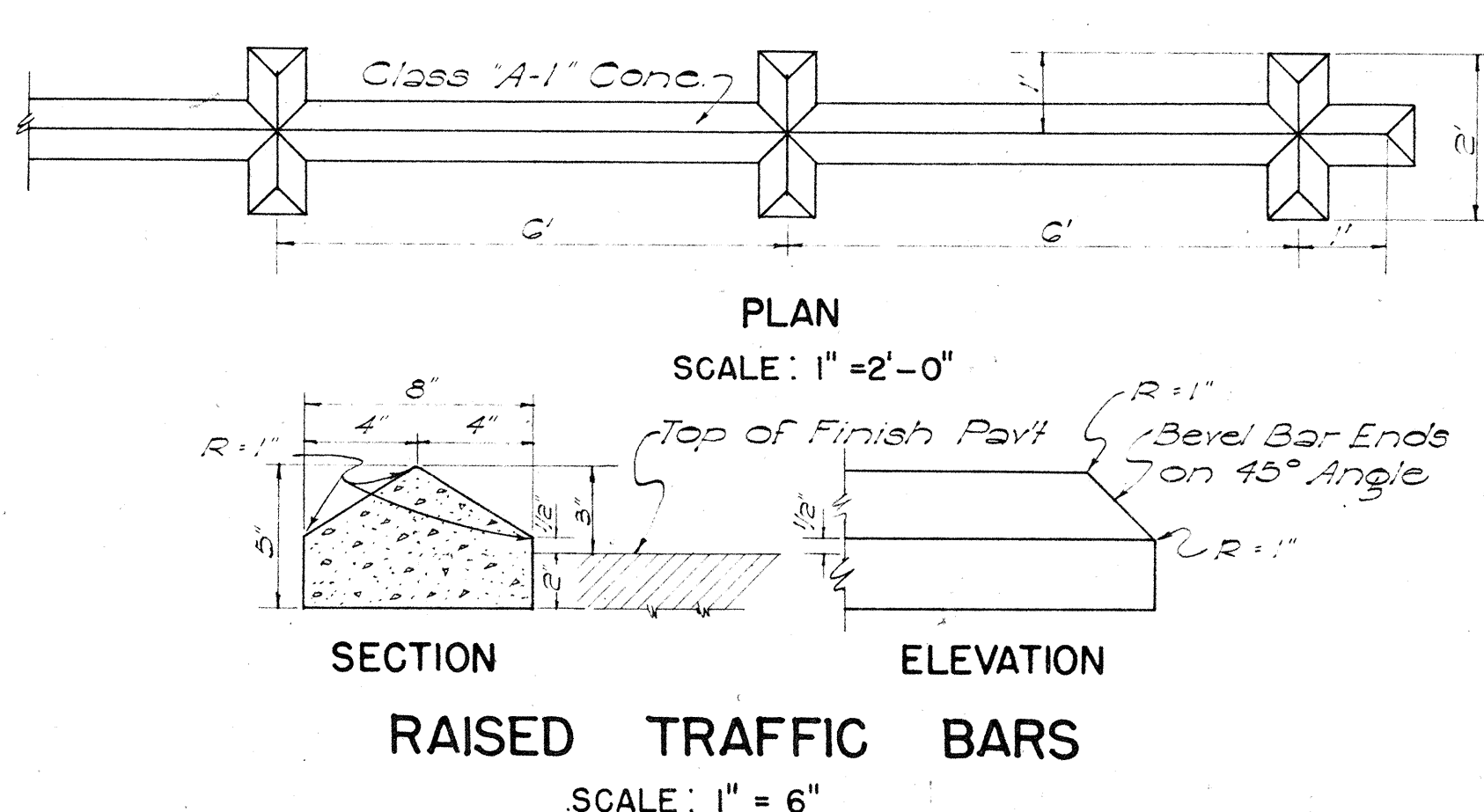
DETAILS OF CAST-IN-PLACE CONC. CURBS AND GUTTERS



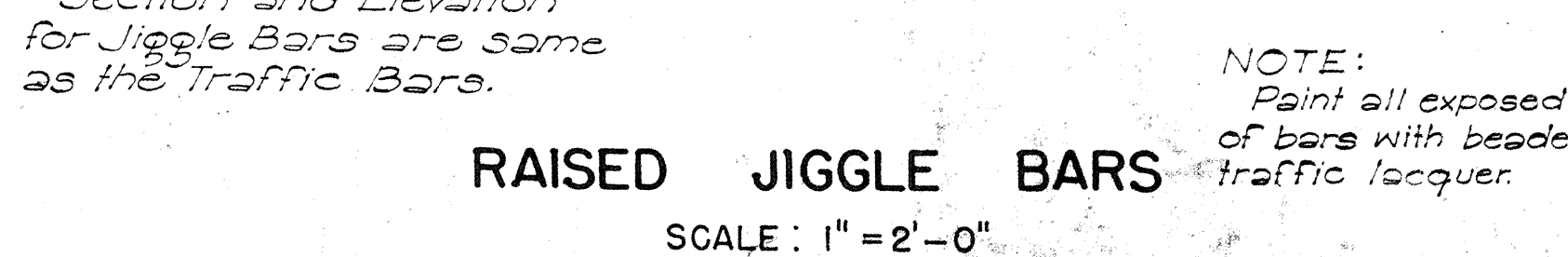
FRONT ELEV.
END ELEV.
PRECAST CONC. CURB
SCALE: 1" = 1'-0"



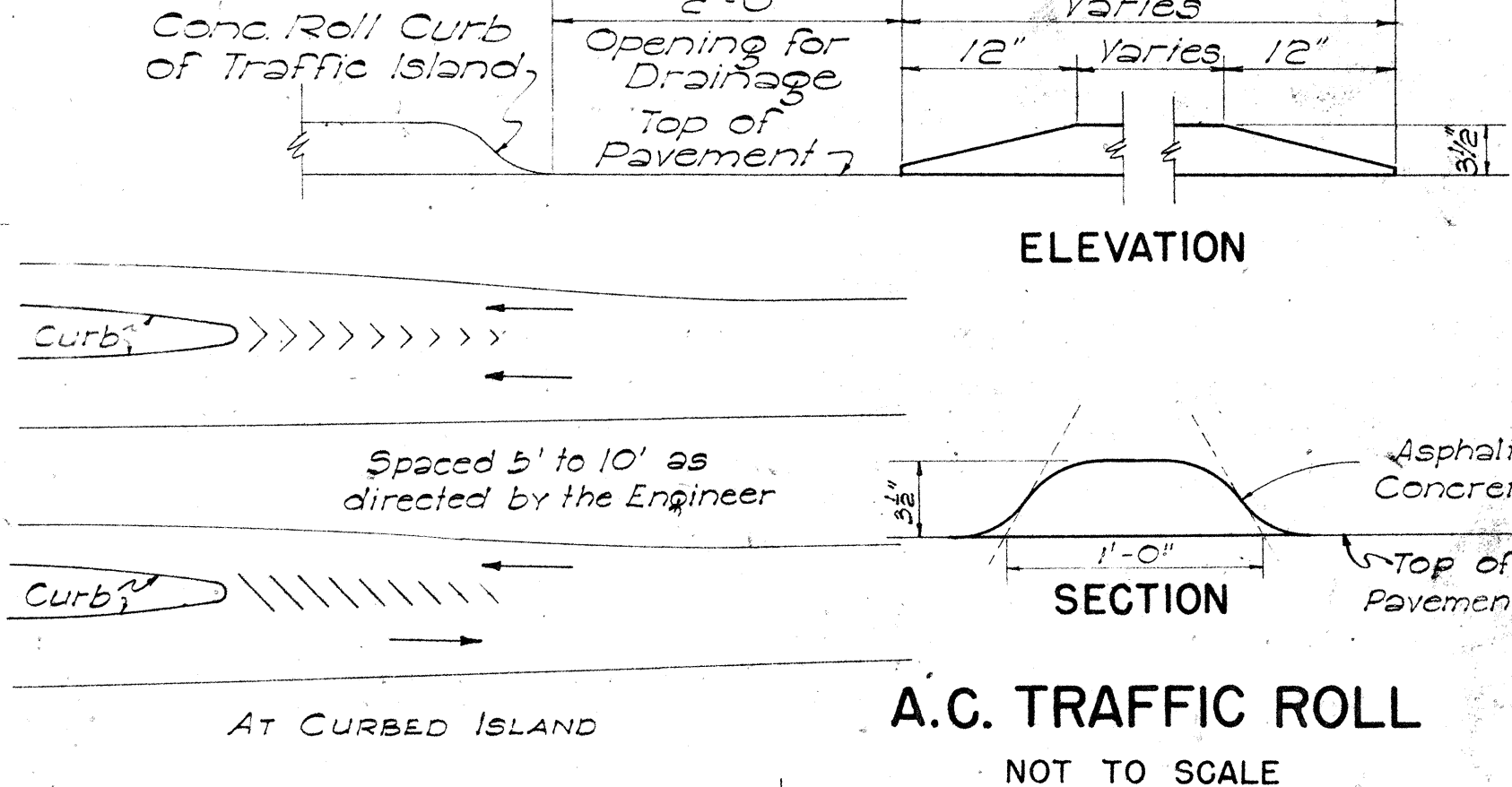
FRONT ELEV.
END ELEV.
PRECAST CONC. ROLL CURB
SCALE: 1" = 1'-0"



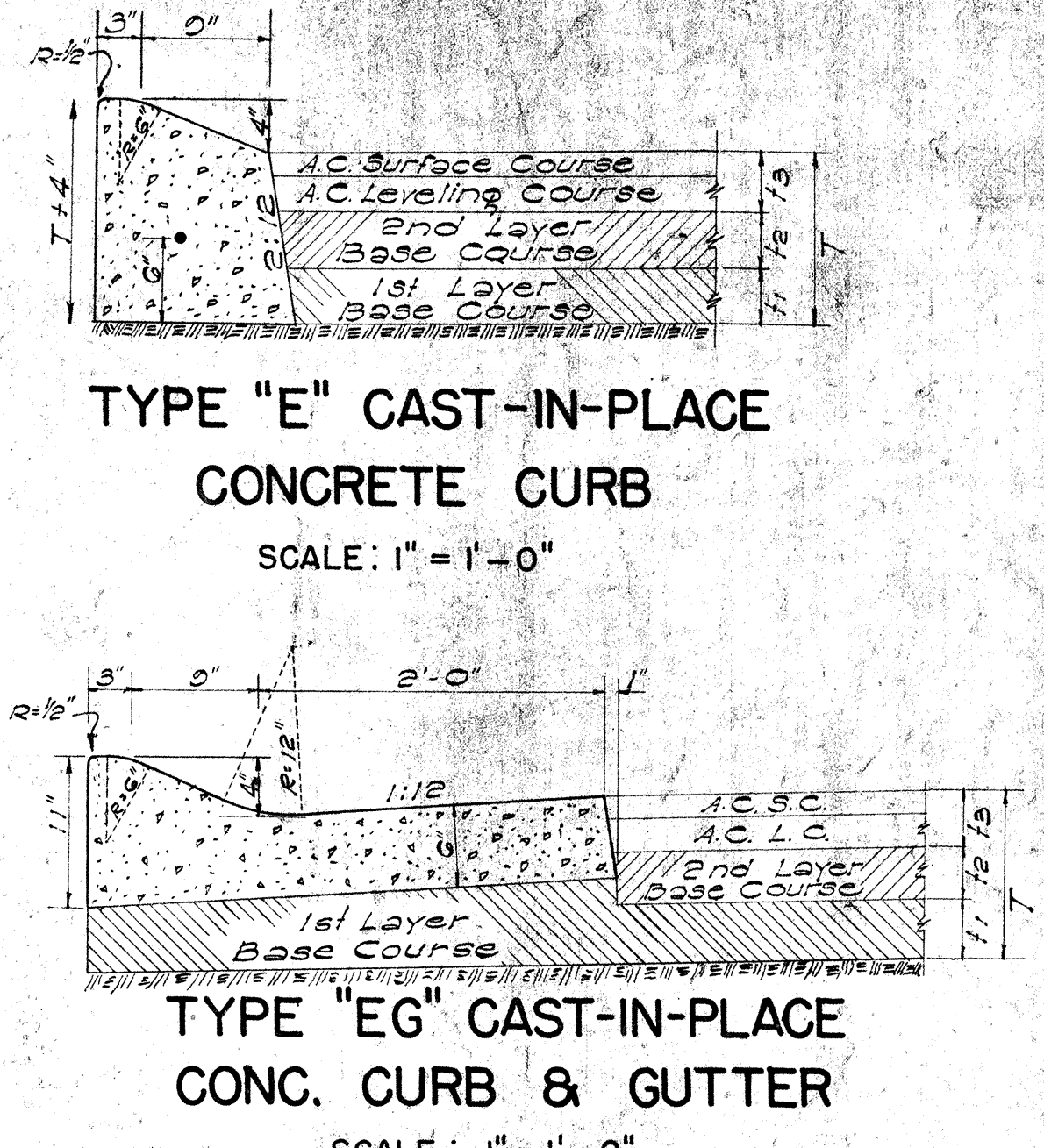
SECTION
ELEVATION
RAISED TRAFFIC BARS
SCALE: 1" = 6"



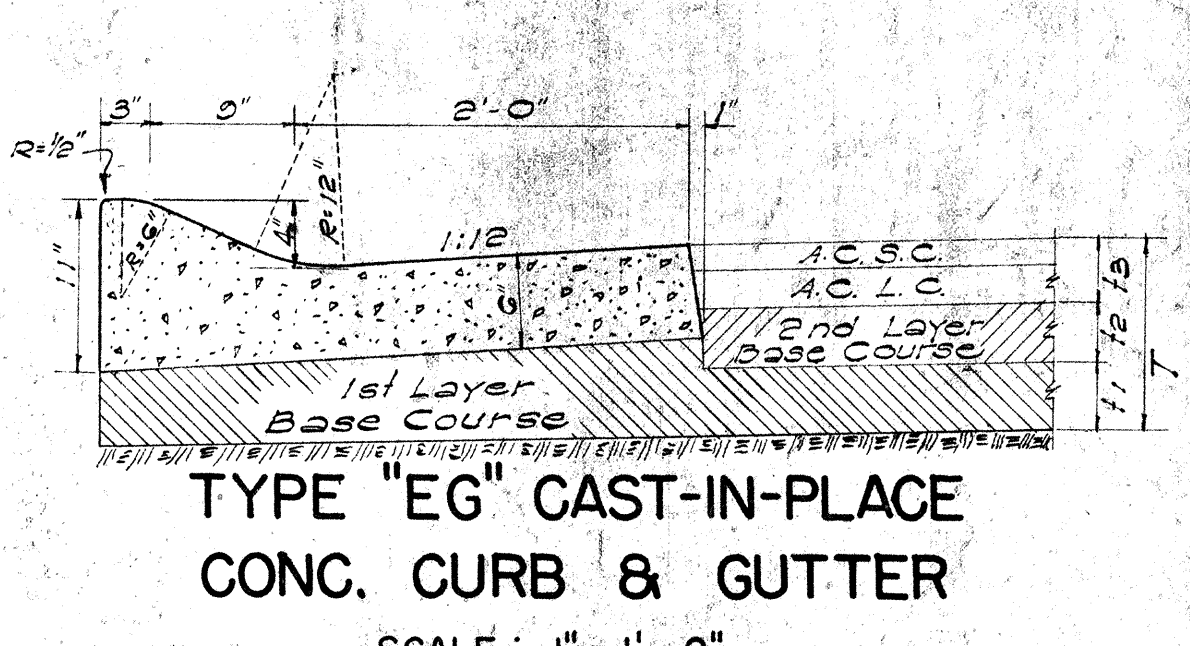
NOTE: Section and Elevation for Jiggle Bars are same as the Traffic Bars.
PLAN
RAISED JIGGLE BARS
SCALE: 1" = 2'-0"



ELEVATION
SECTION
A.C. TRAFFIC ROLL
NOT TO SCALE



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



SECTION
ELEVATION
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

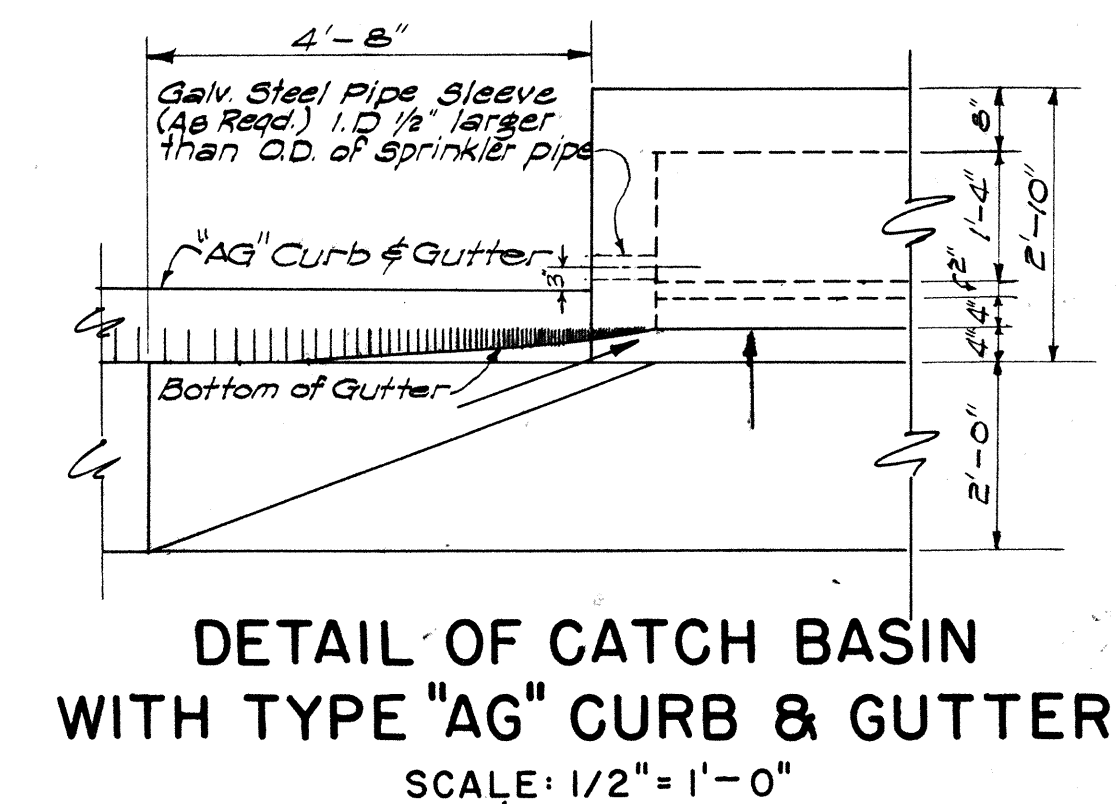
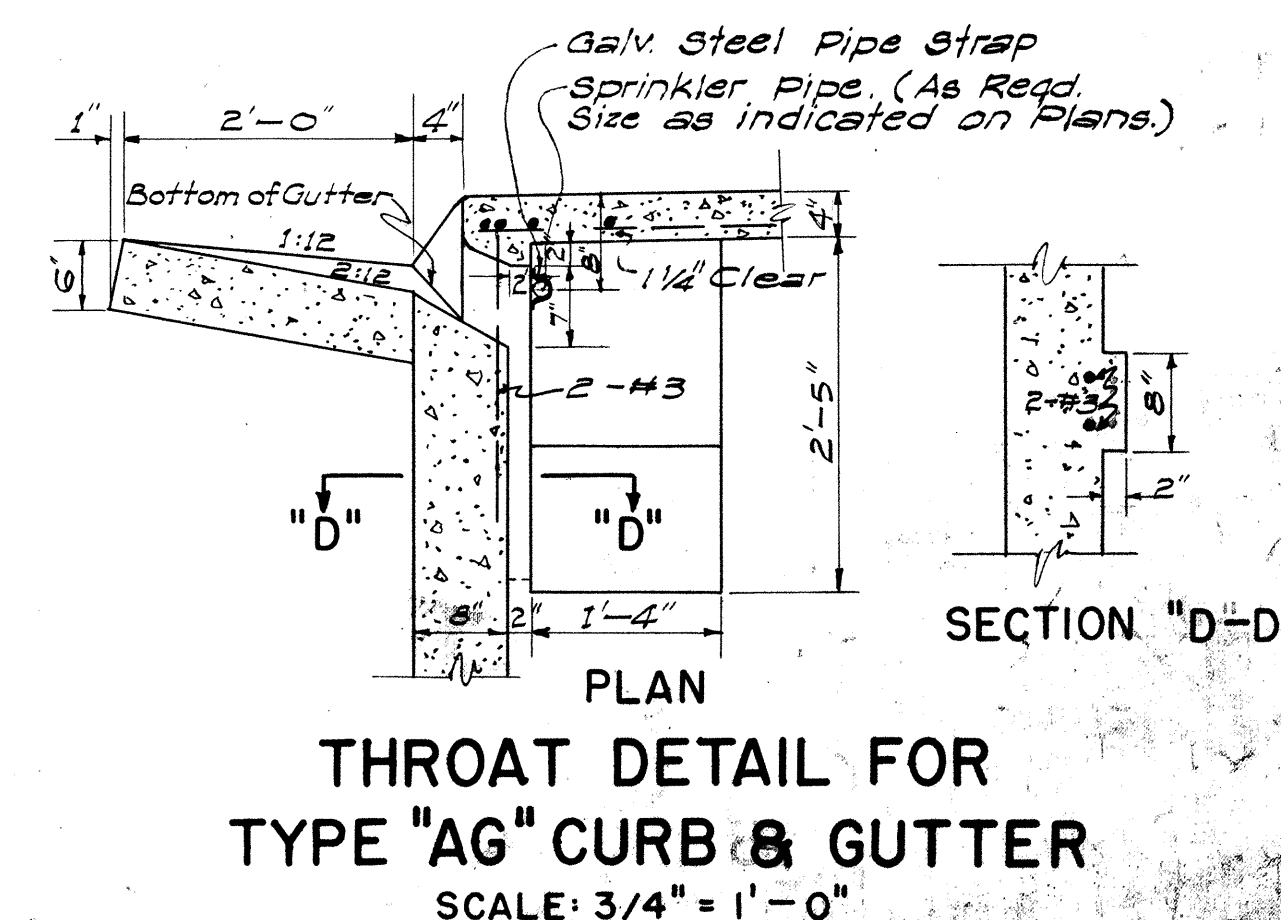
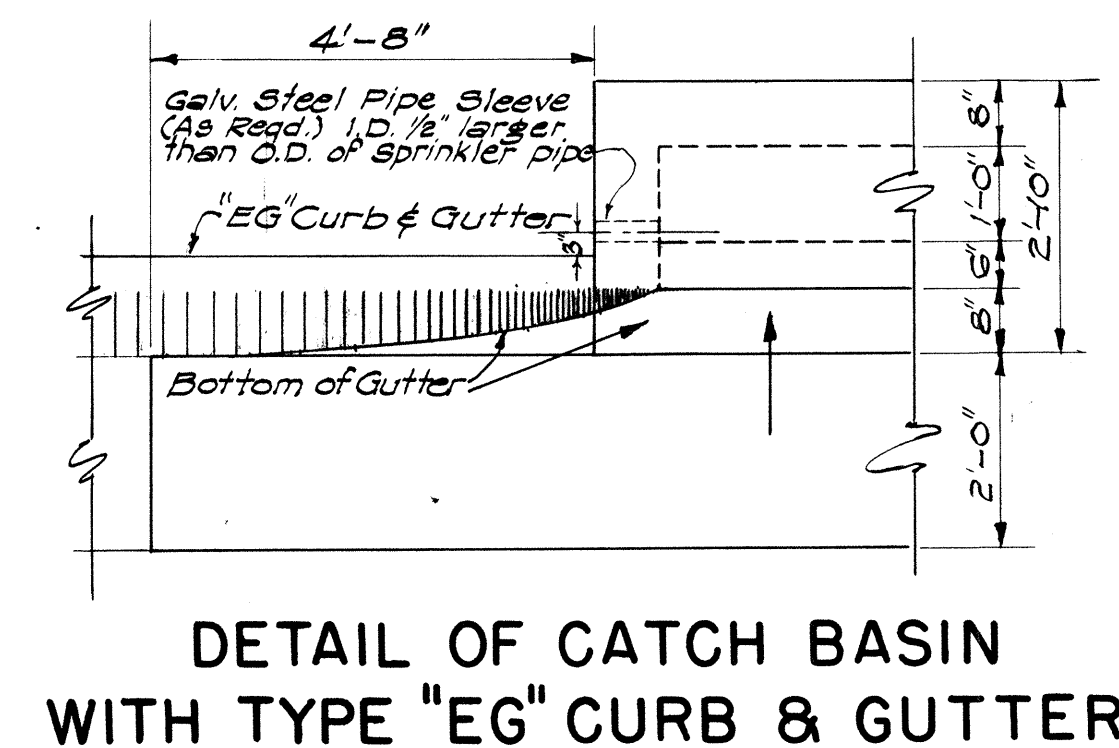
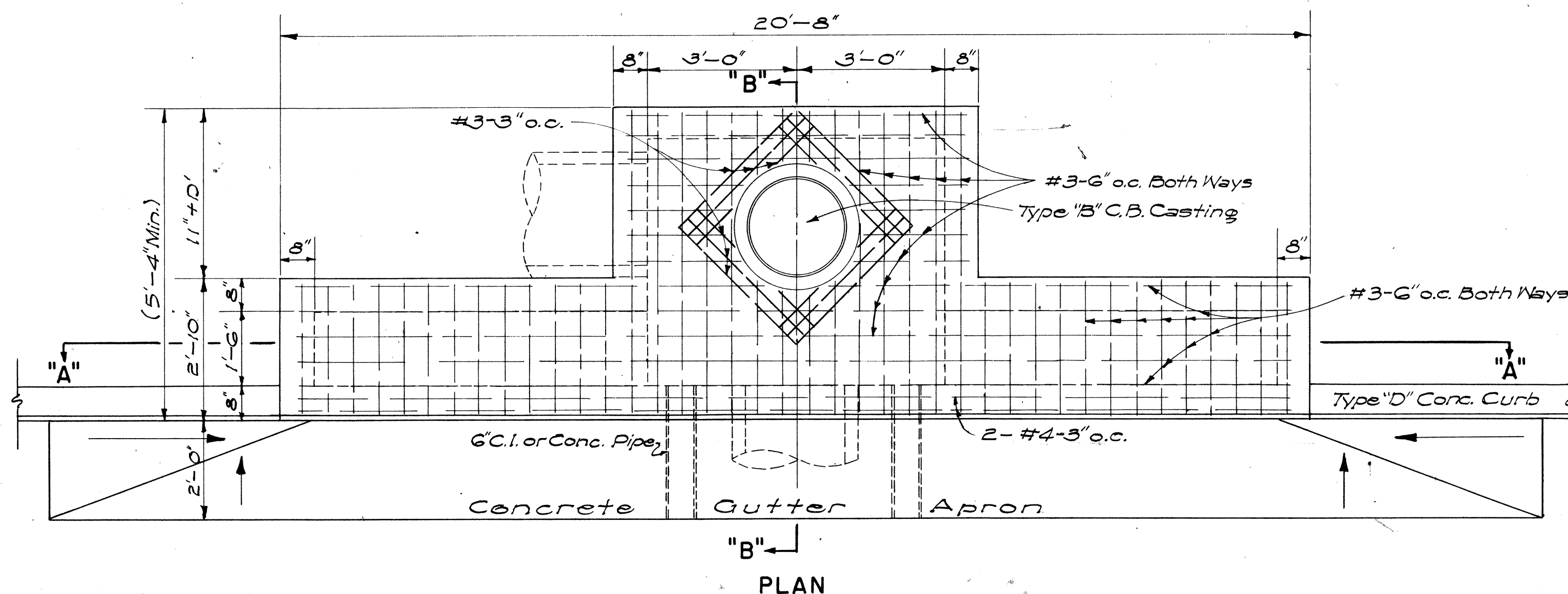
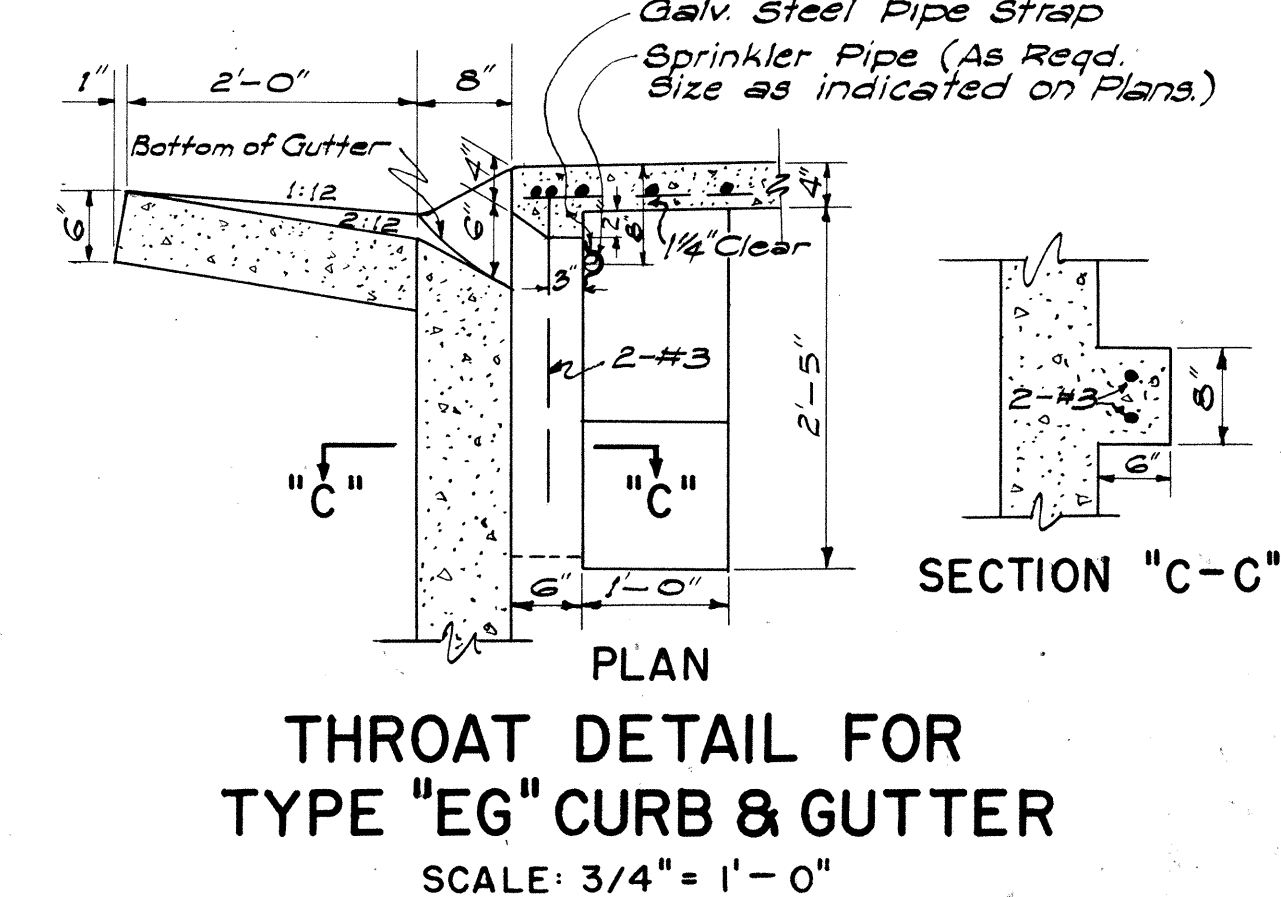
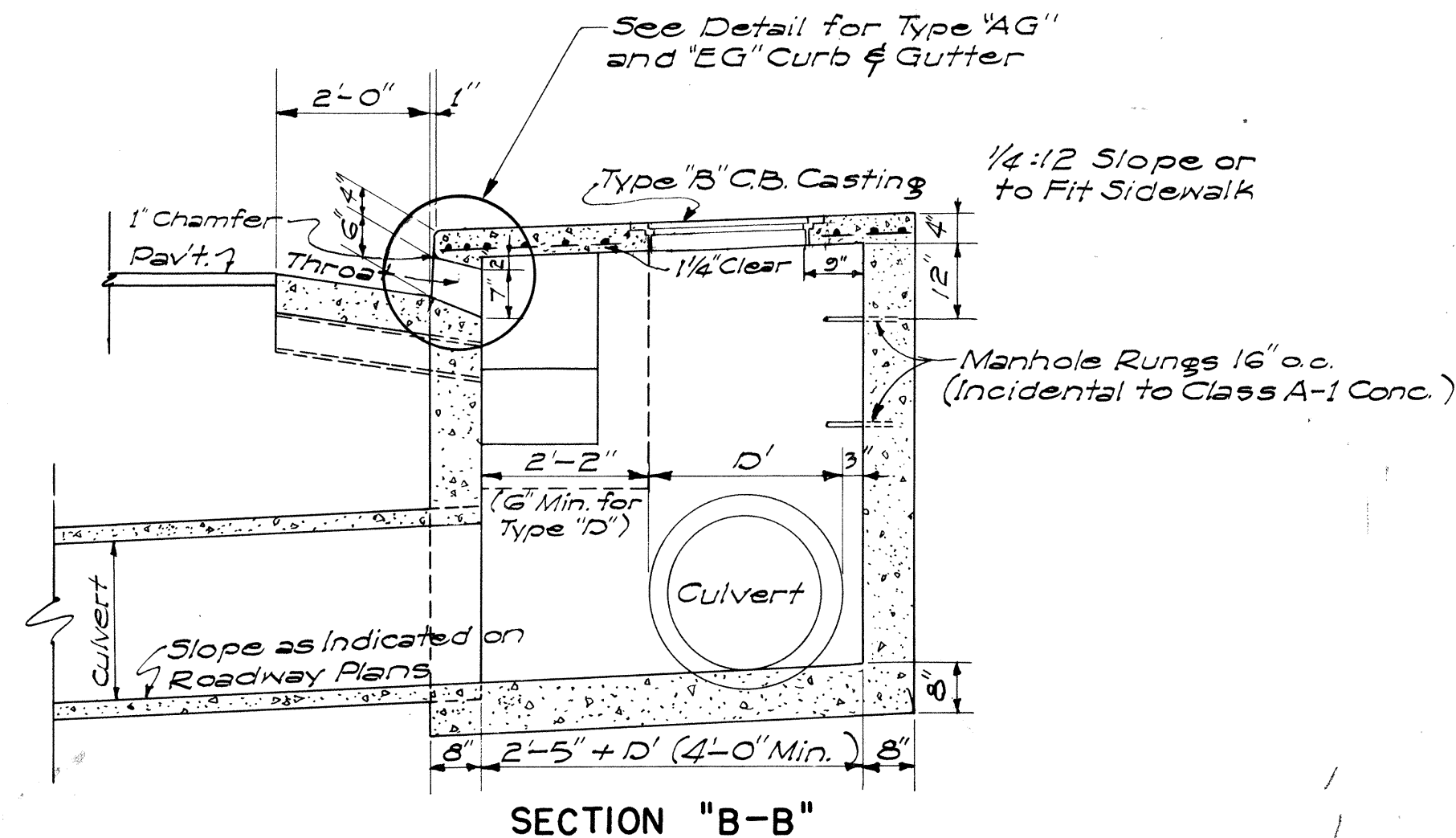
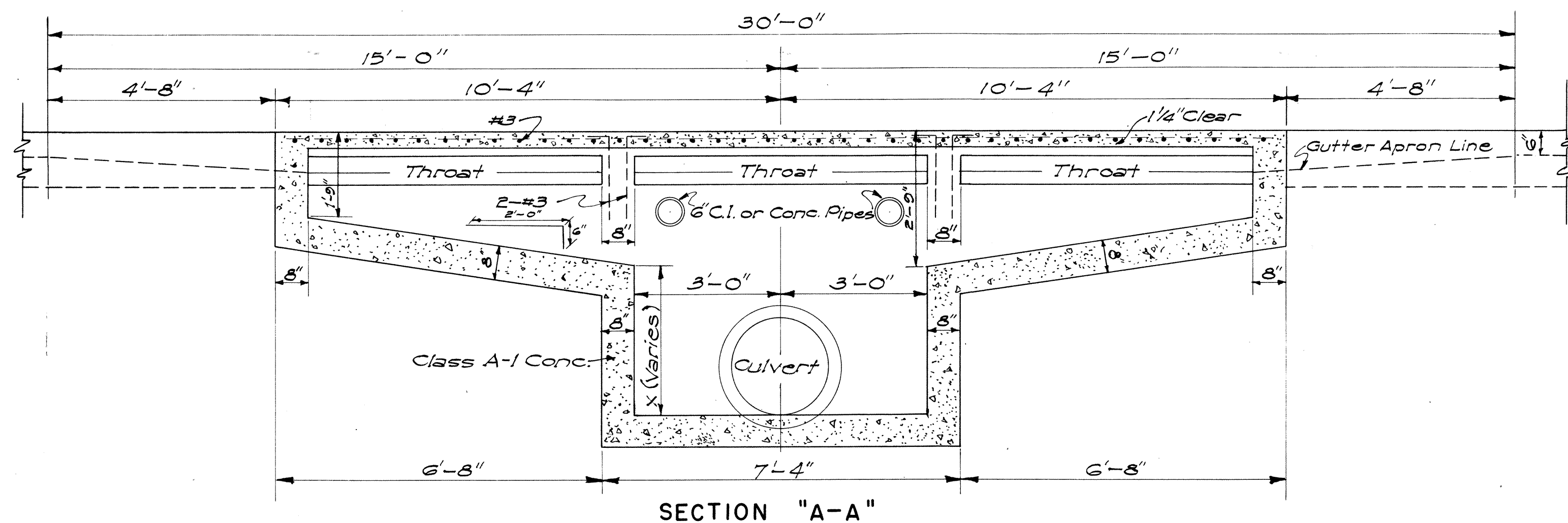
A 26 B 26

"E" and "EG" Curbs have been revised 7-26-57

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
QUANTITIES CHECKED BY	
NOTED BY	
NO.	

2/17/59

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-078-100	1963	A26A	45
		U-068-101	1963	B26B	45

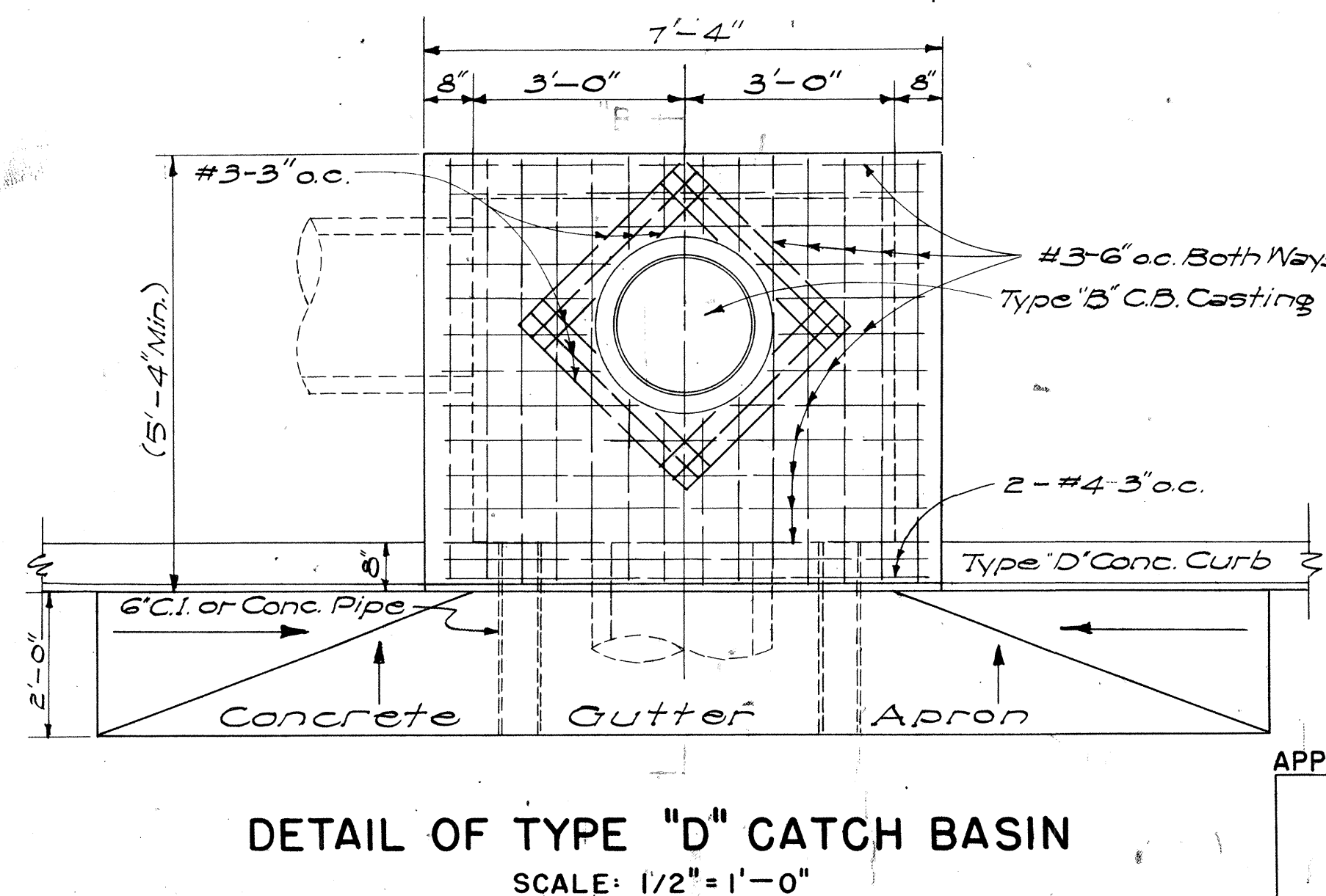
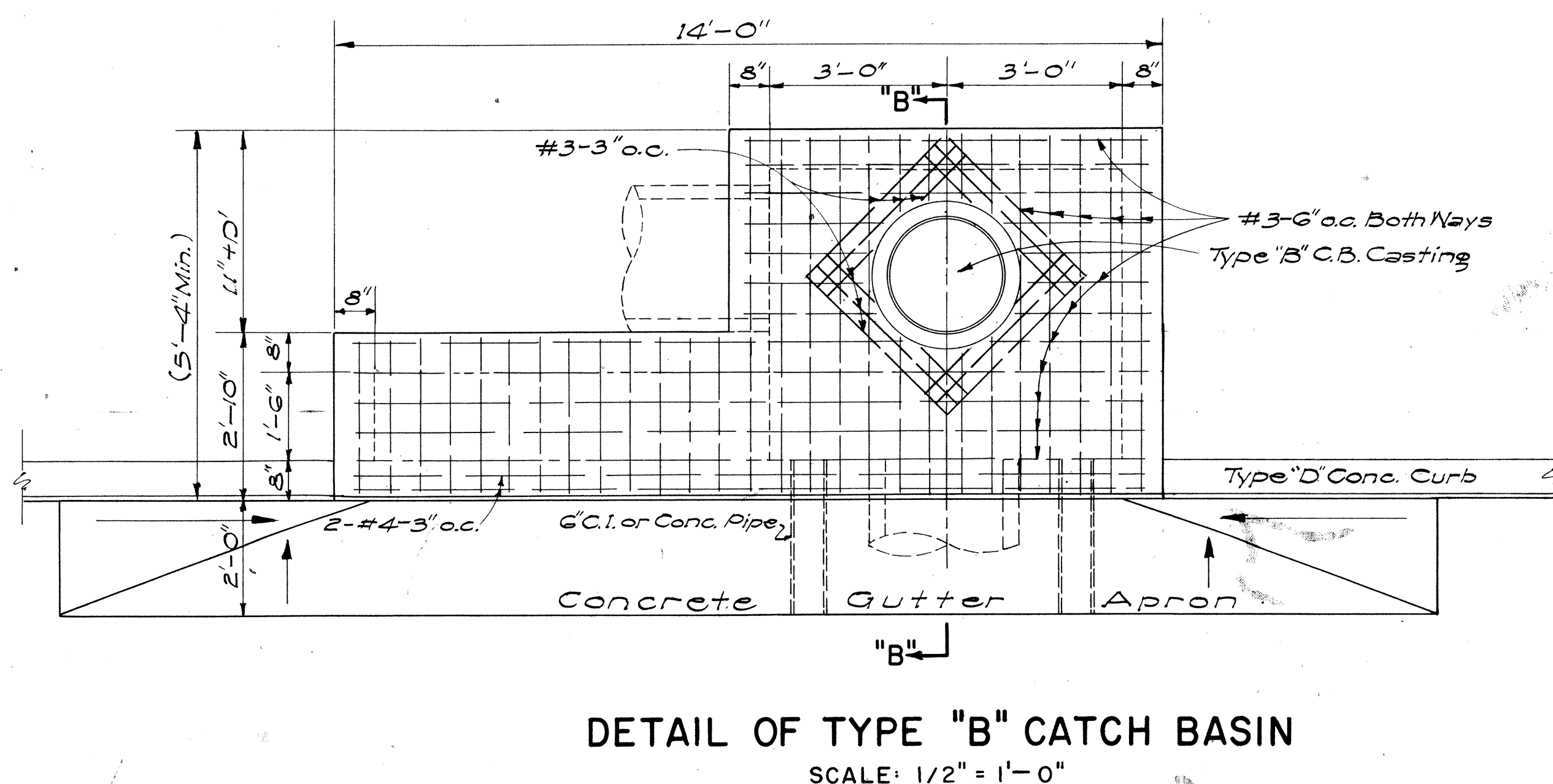


ESTIMATED QUANTITIES

Type	Class A-1 Conc.	Struct. Exc.	Reinf. Steel	Gutter Length
"A"	7.5 c.y.	24.7 c.y.	145 lb.	30'-0"
"B"	6.0 c.y.	21.5 c.y.	108 lb.	23'-4"
"C"	6.0 c.y.	21.5 c.y.	108 lb.	23'-4"
"D"	4.9 c.y.	16.5 c.y.	77 lb.	16'-8"

NOTES:

- Quantities based on X=3'-0" and D'=30"
- Quantities do not include concrete for Gutter Apron.
- The Contractor shall install 2'-6" Cast Iron or Concrete Pipes as incidental to Class A-1 Concrete for Construction Drainage.
- Culvert shall leave C.B. from any position and any direction indicated by plans or ordered by the Engineer. Culvert may both enter and leave C.B. so that C.B. will also act as Manhole.
- The Contractor shall install Galvanized Steel Pipe Sleeves and Straps as incidental to Sprinkler System.



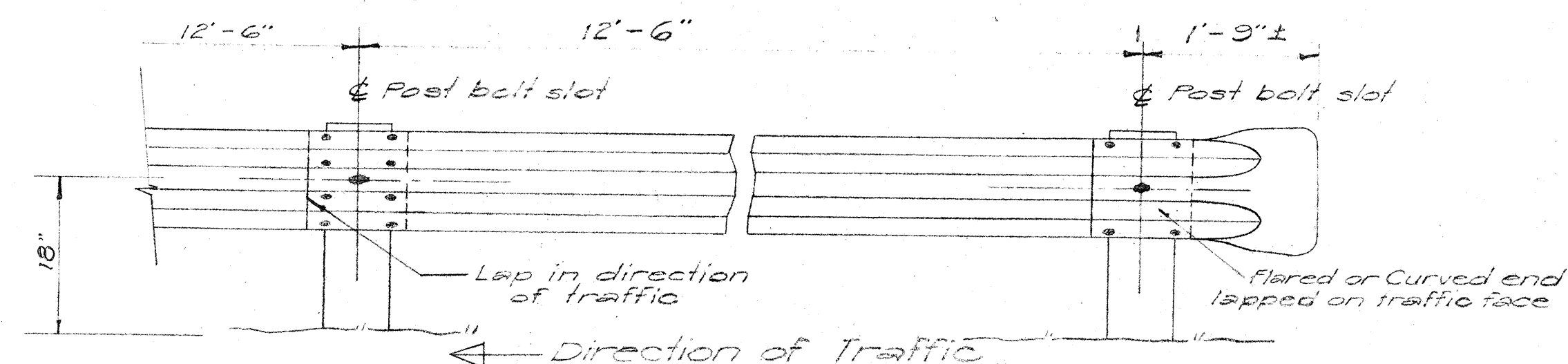
NOTE: TYPE "C" C.B. SIMILAR BUT OPPOSITE HAND

APPROVED: _____ DATE: Aug 25, 1959
STATE HIGHWAY ENGINEER

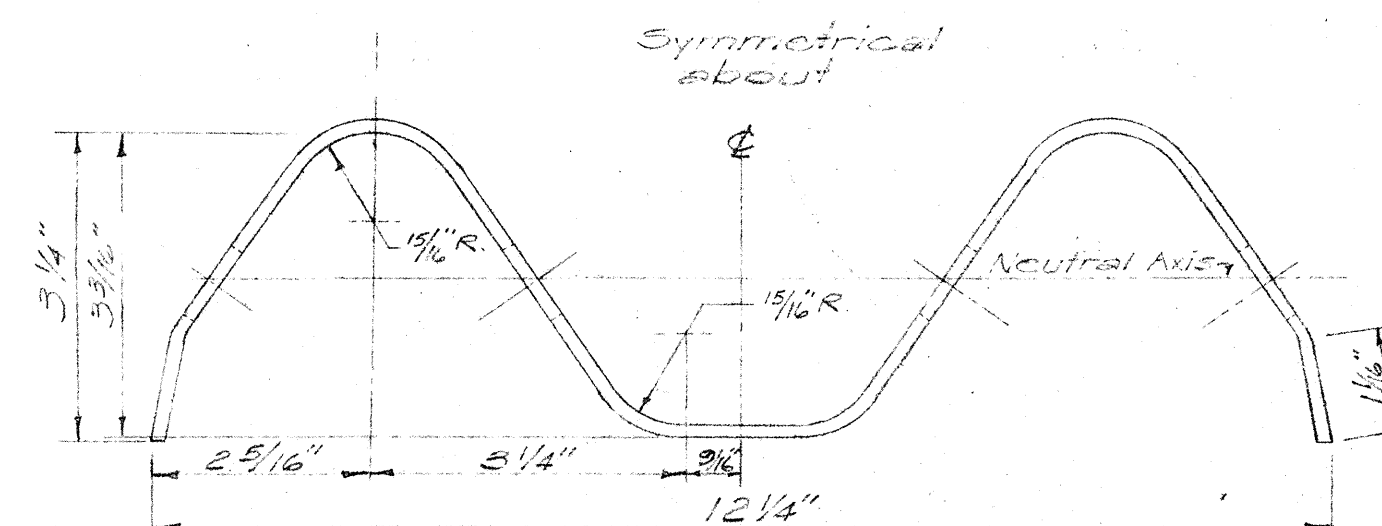
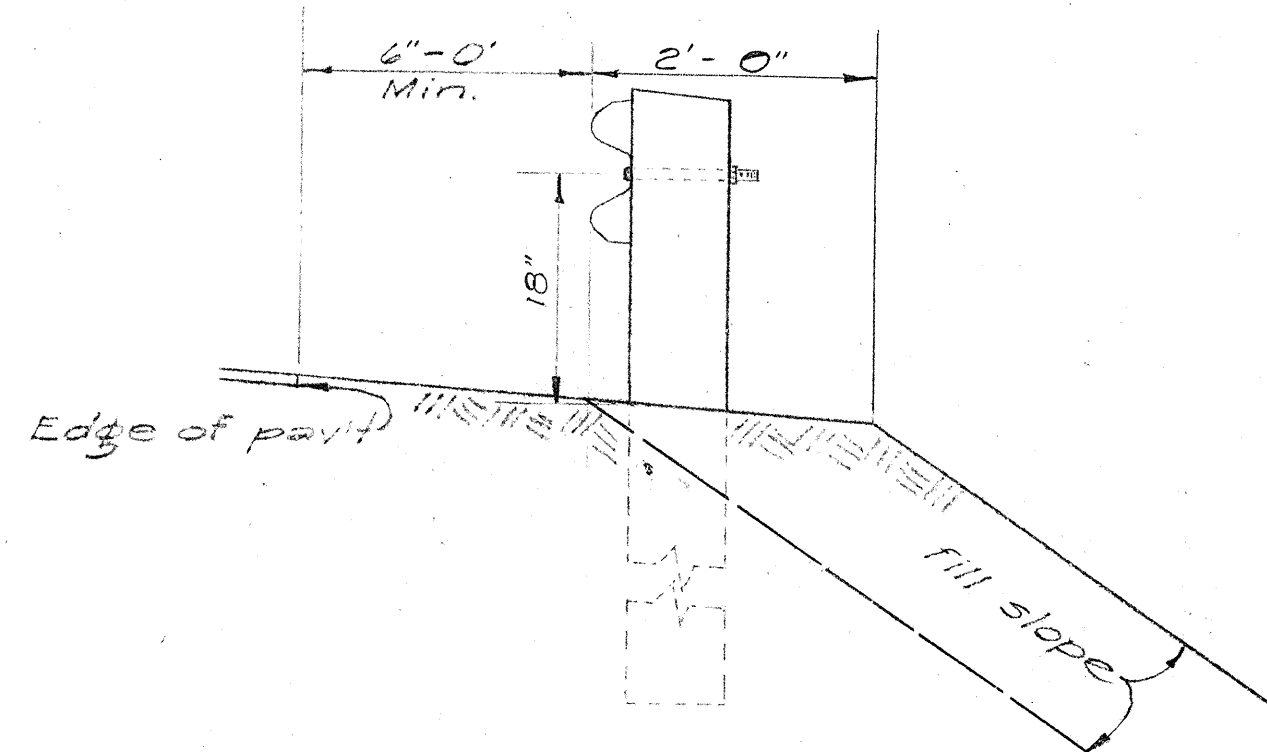
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STATE OF HAWAII
STANDARD DETAILS
CONCRETE CATCH BASINS
SCALES AS NOTED
SHEET NO. 45 OF 45 SHEETS
A 26 A B 26 B

SURVEY PLOTTED BY	DATE
DESIGNED BY	
DRAWN BY	
CHECKED BY	
NOTE BOOK	
No.	

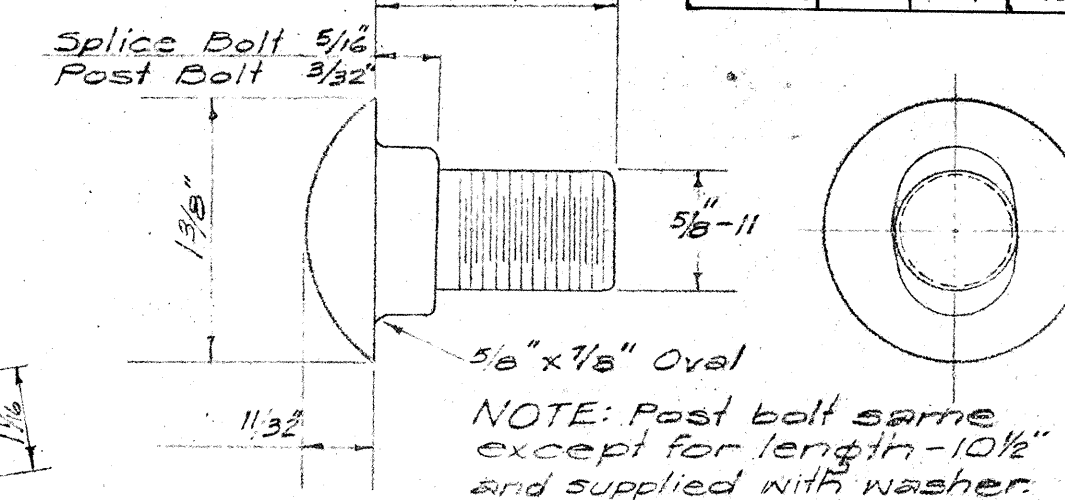
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET No.	TOT SHEE
HAWAII	HAW.	U-072-1(0)	1960	A27	45
1 1/4"		U-063-1(1)	1960	B27	45



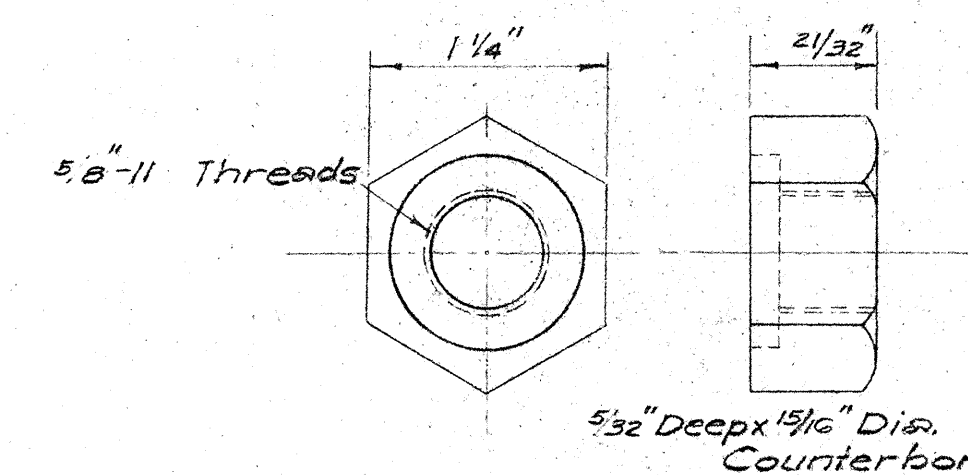
METAL GUARDRAIL
Scale: $\frac{3}{4}" = 1'-0"$



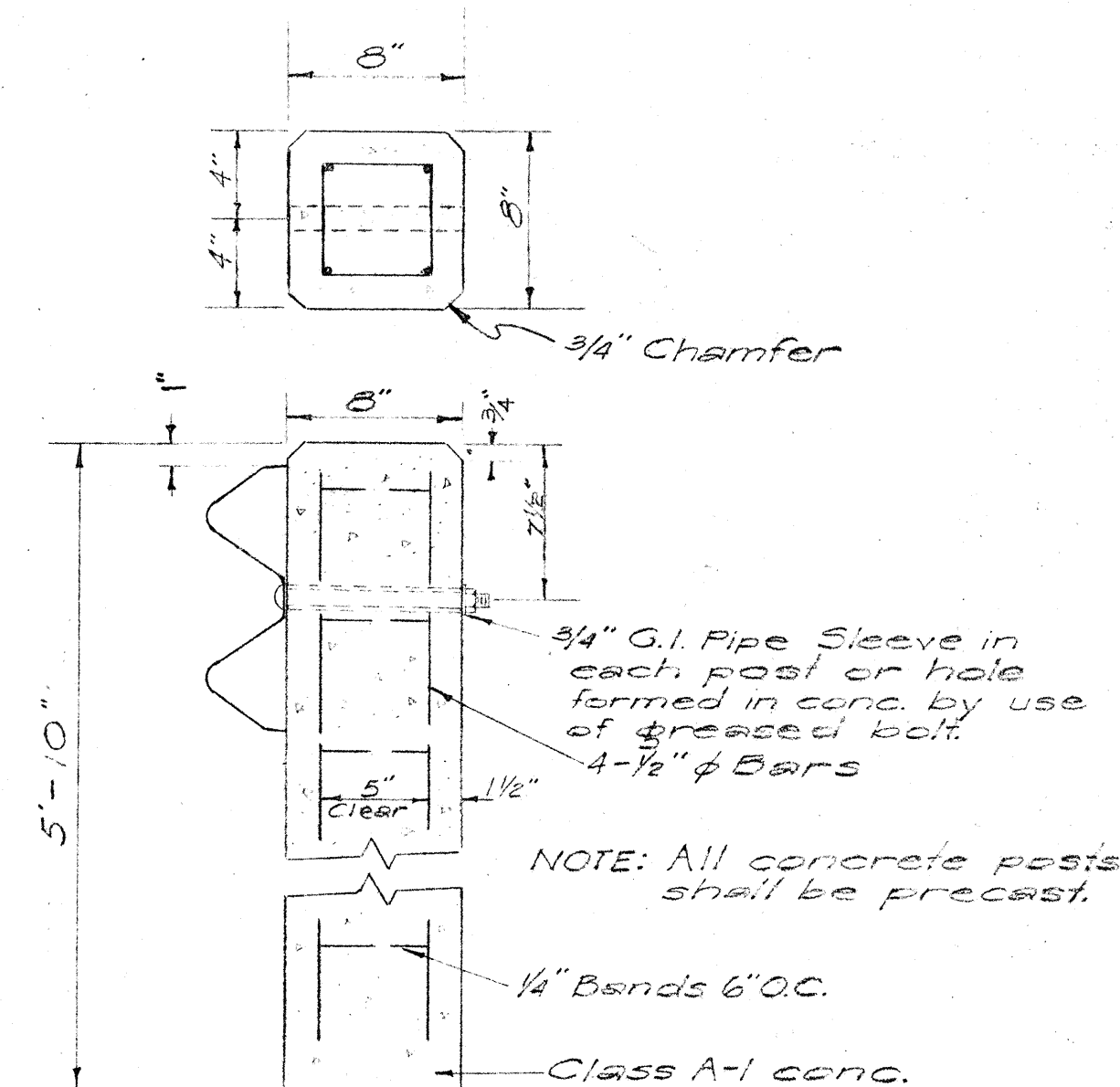
RAIL ELEMENT SECTION
Scale: $\frac{1}{2}'' = 1'$



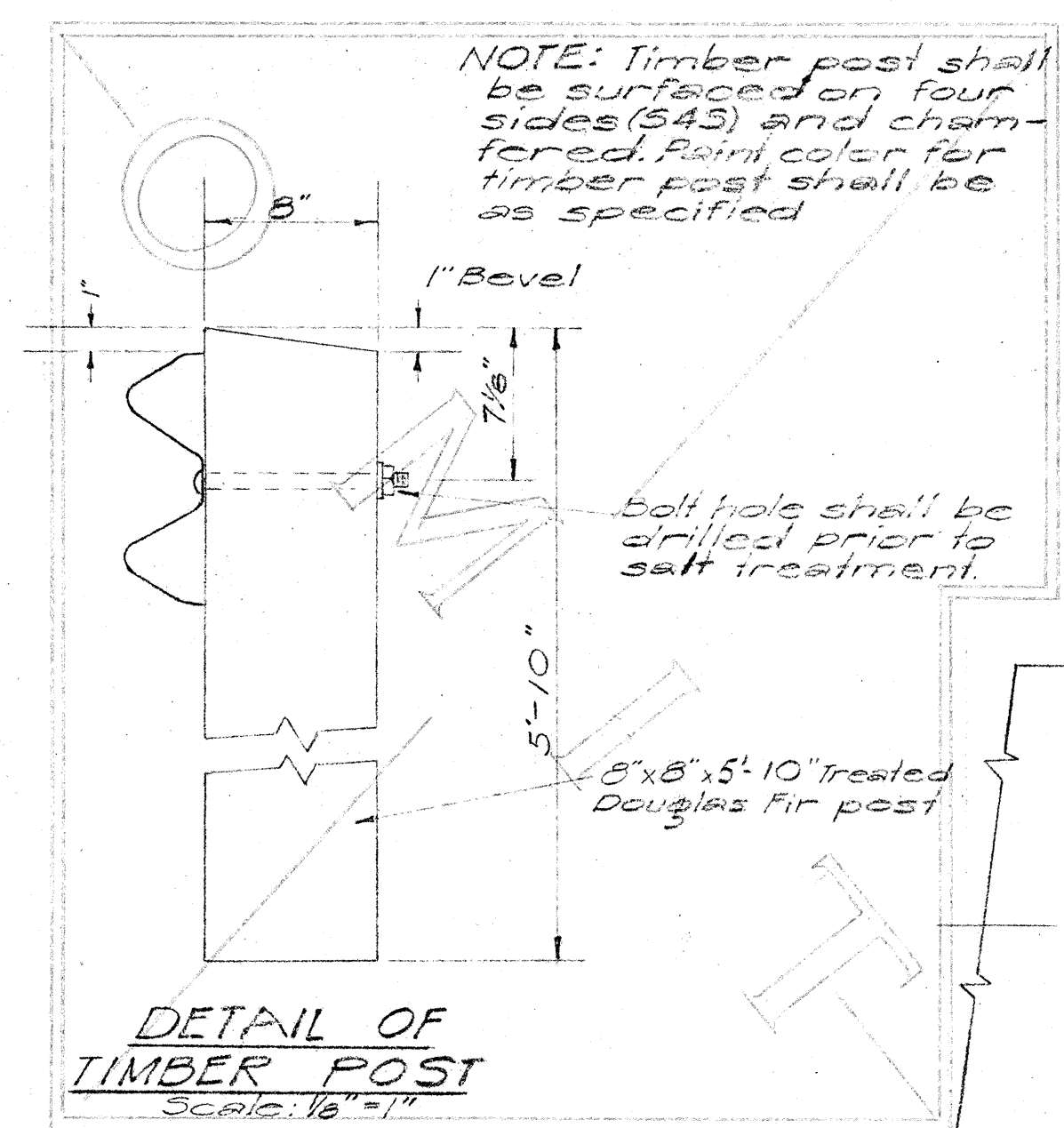
SPLICE BOLT
POST BOLT



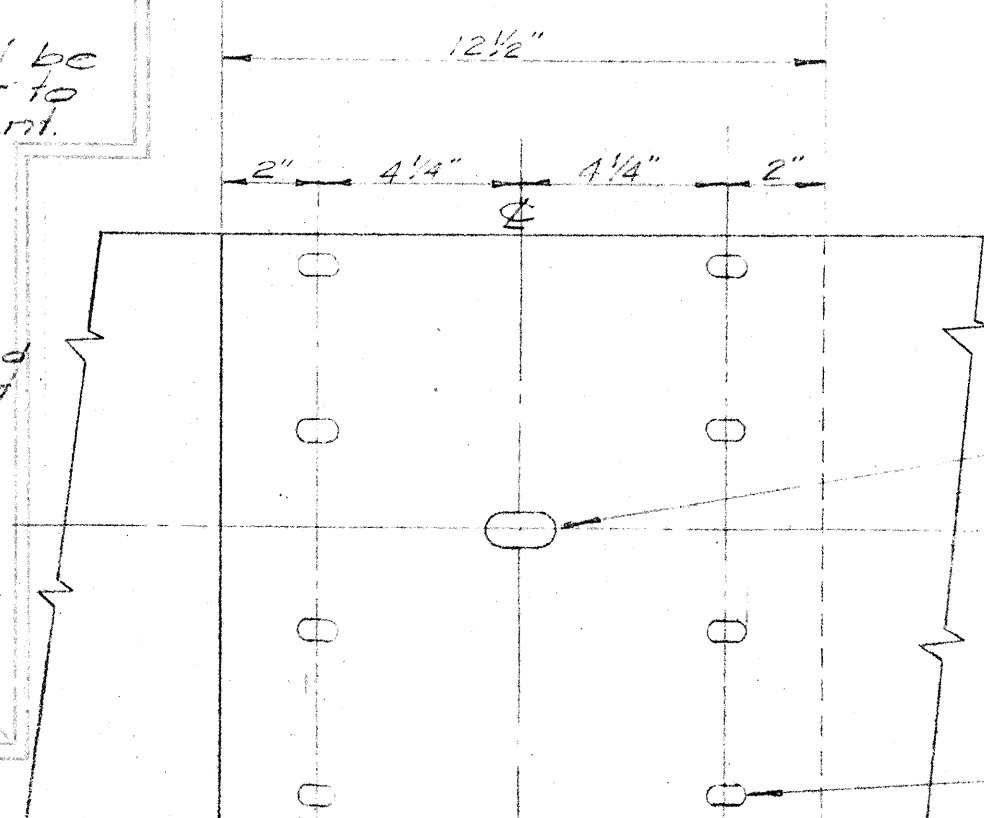
HEXAGON NUT
Scale: 1" = 1"



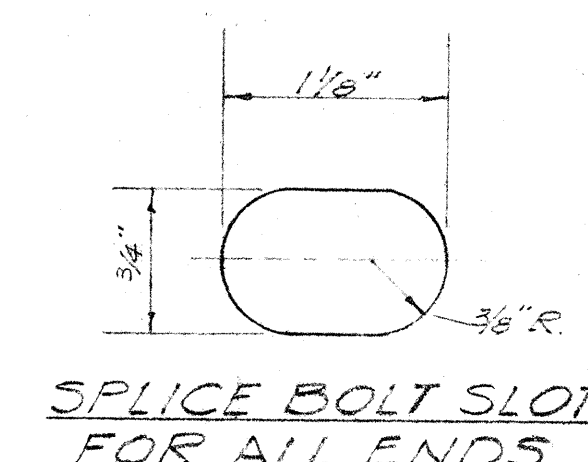
DETAIL OF
CONC. POST
Scale: $\frac{1}{8}" = 1"$



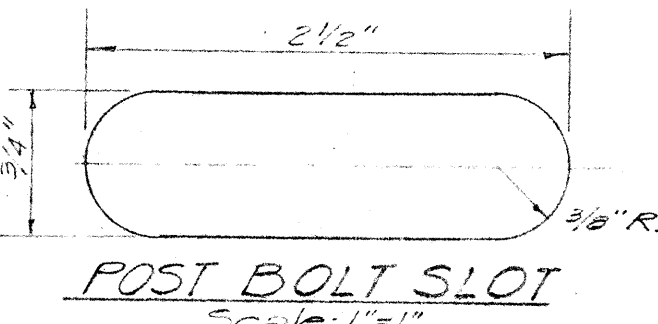
DETAIL OF
TIMBER POST



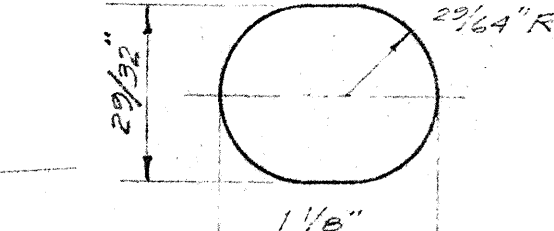
RAIL SPLICE
Scale: 1/4" = 1"



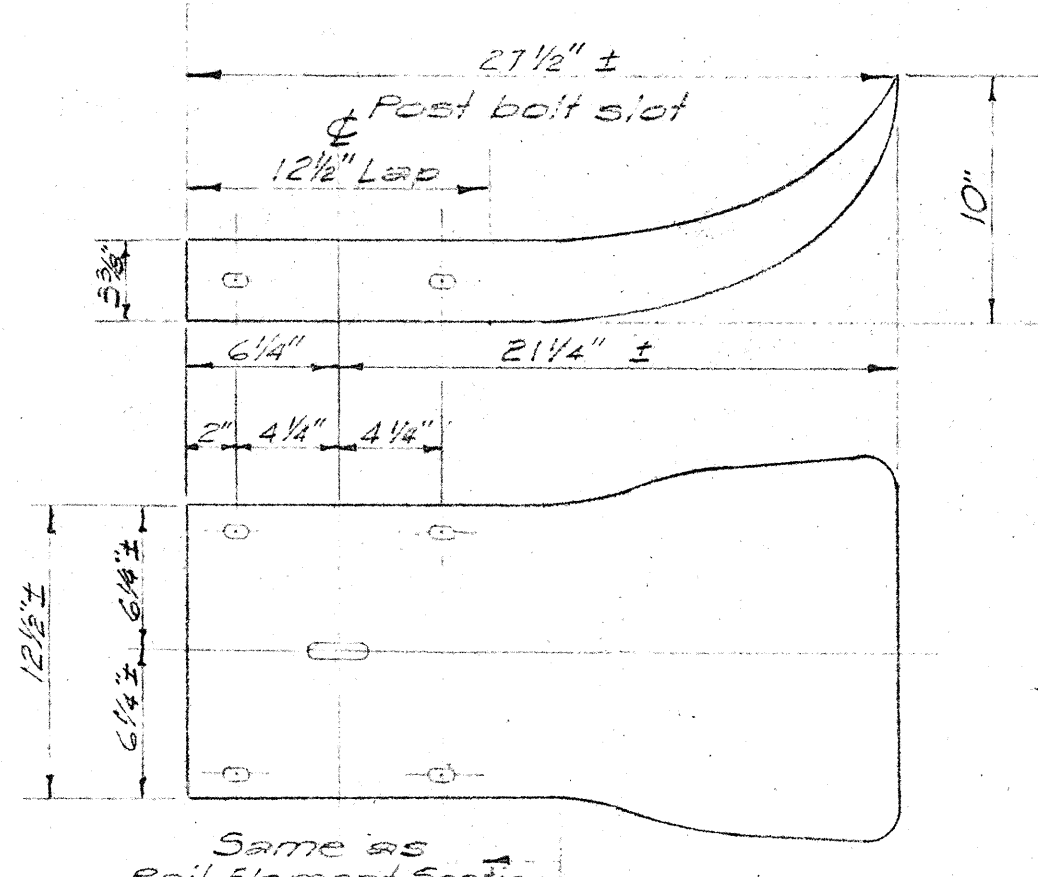
SPLICE BOLT SLOT
FOR ALL ENDS



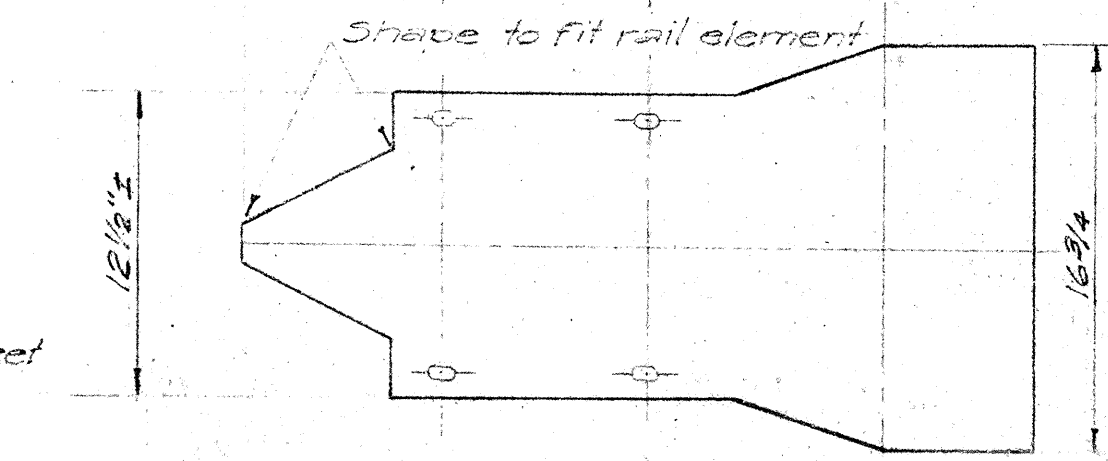
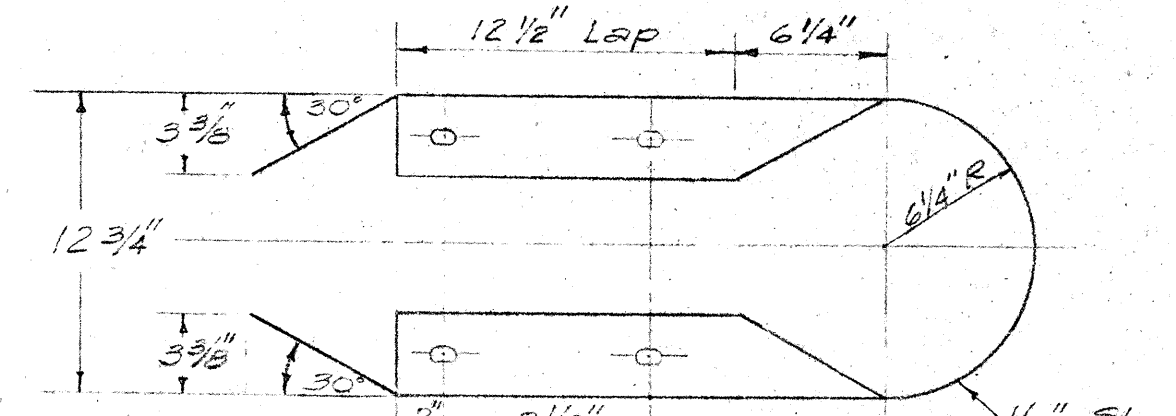
POST BOLT SLOT
Scale: 1"=1"



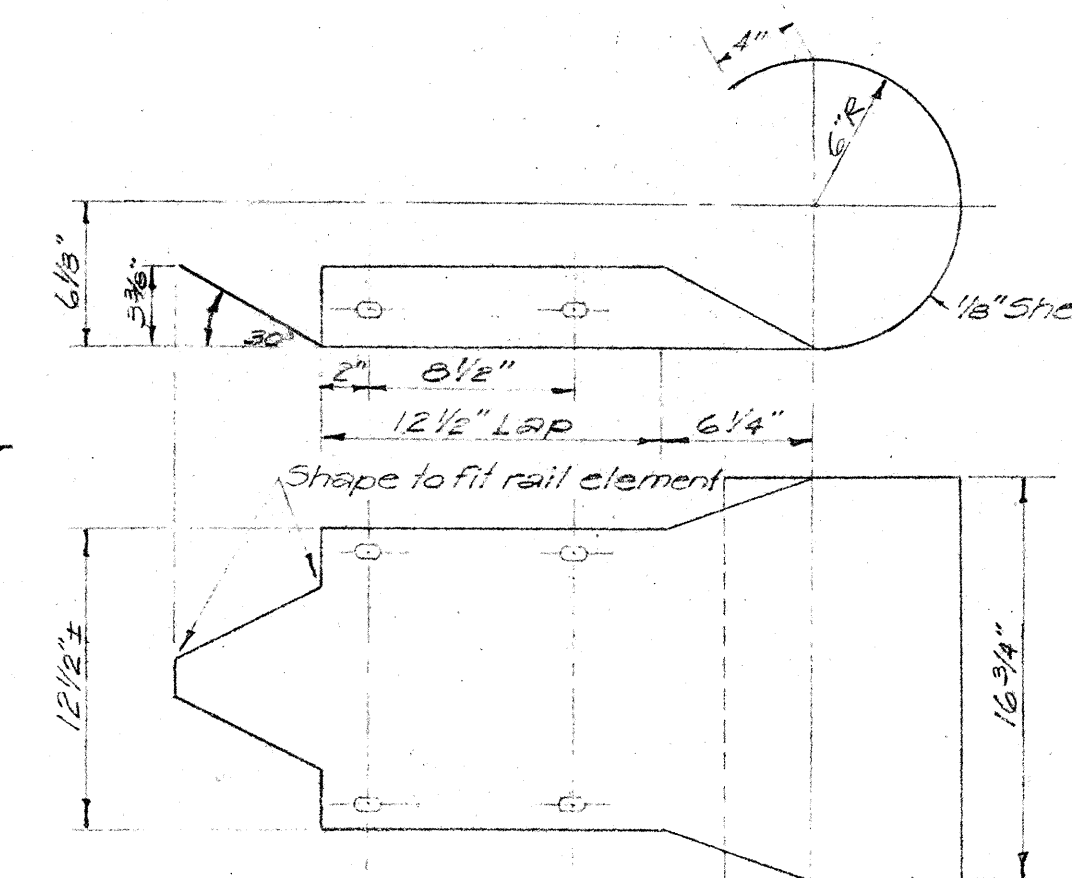
SPLICE BOLT SLOT
Scale: 1"=1"



FLARED END
5000 1/2" - 1"



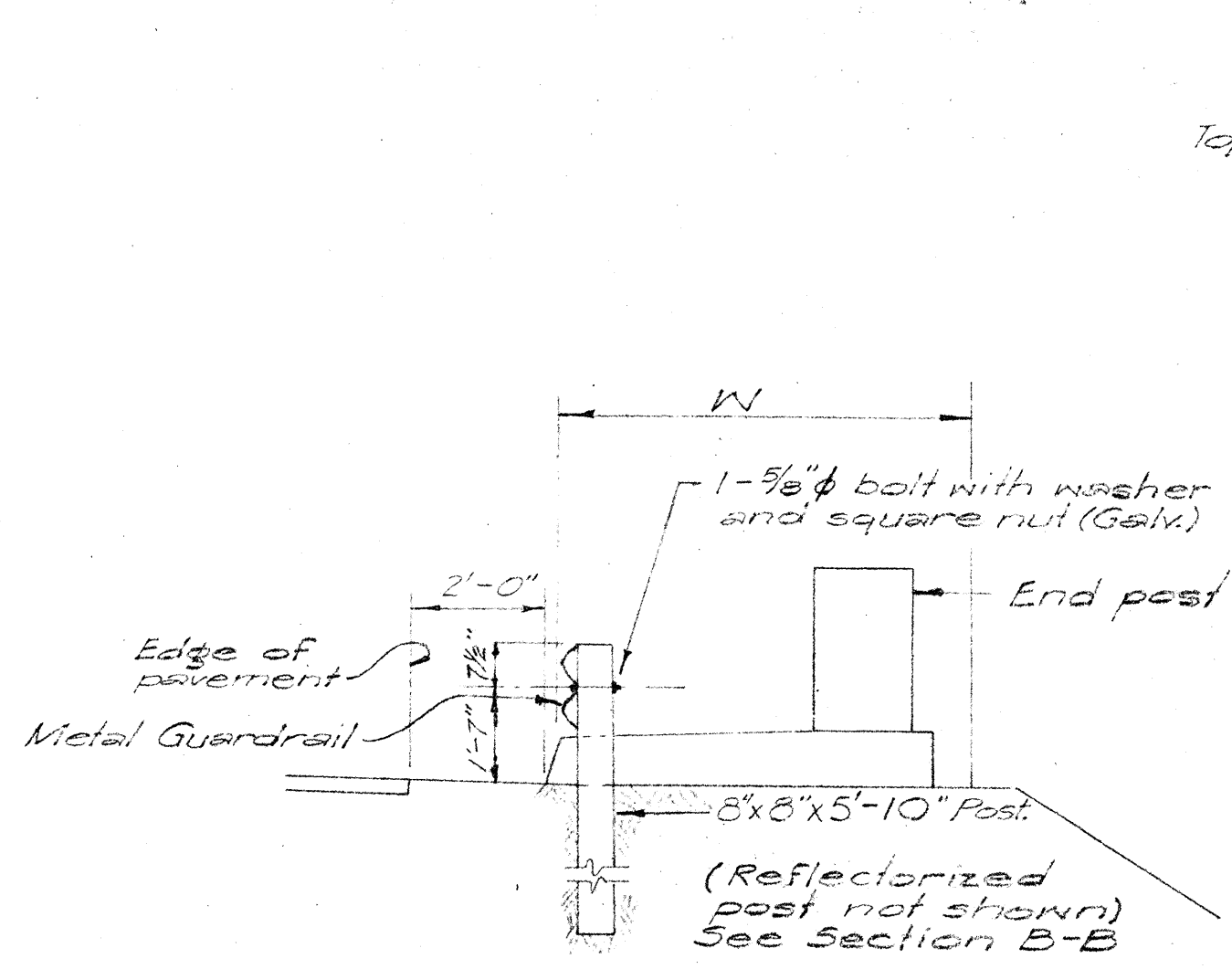
MEDIAN END



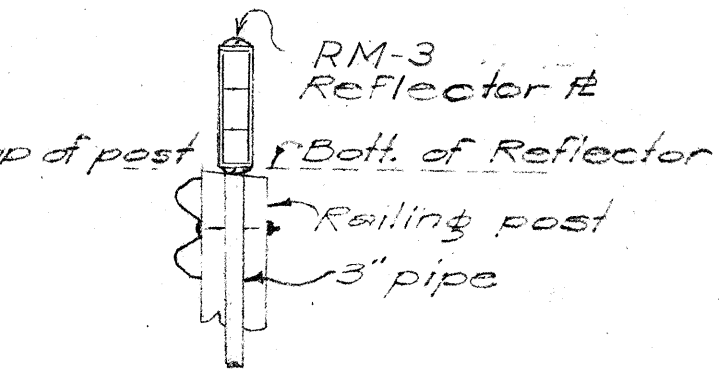
CURVED END
Scale: 1/8"=1"

GUARDRAIL OFFSET						
	Y					
X	N=3'	N=4'	N=5'	N=6'	N=7'	N=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
75.0			5.00	4.41	3.11	2.88
37.5				6.00	4.23	3.92
100.0					5.55	5.12
112.5					7.00	6.48

W = Guardrail flare.
X = Distance from post at bridge
to offset points.
Y = Guardrail flare offset.

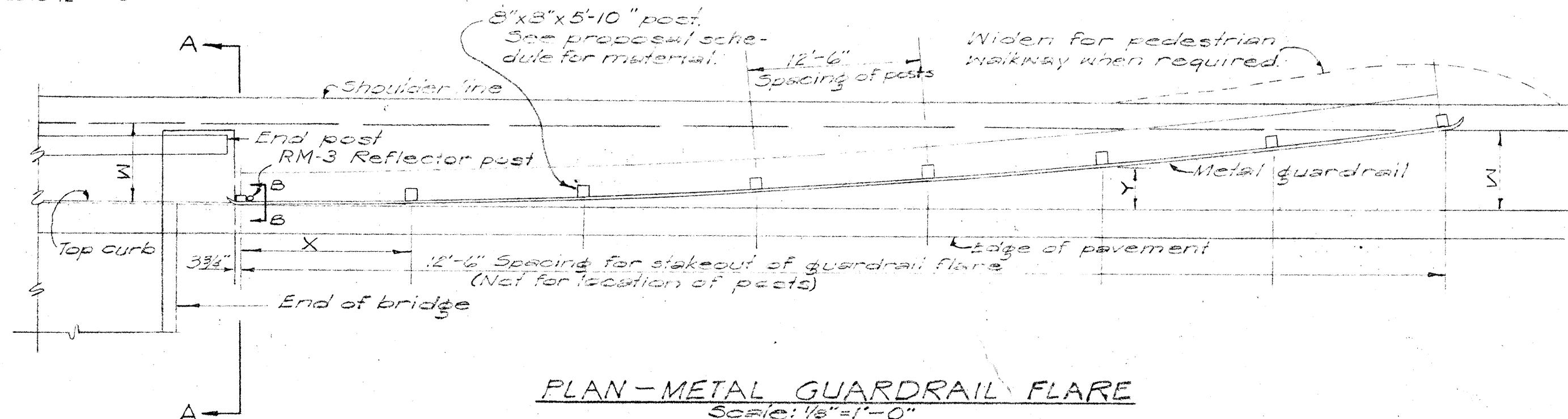


SECTION A-A
Scale: 2/8" = 1'-0"

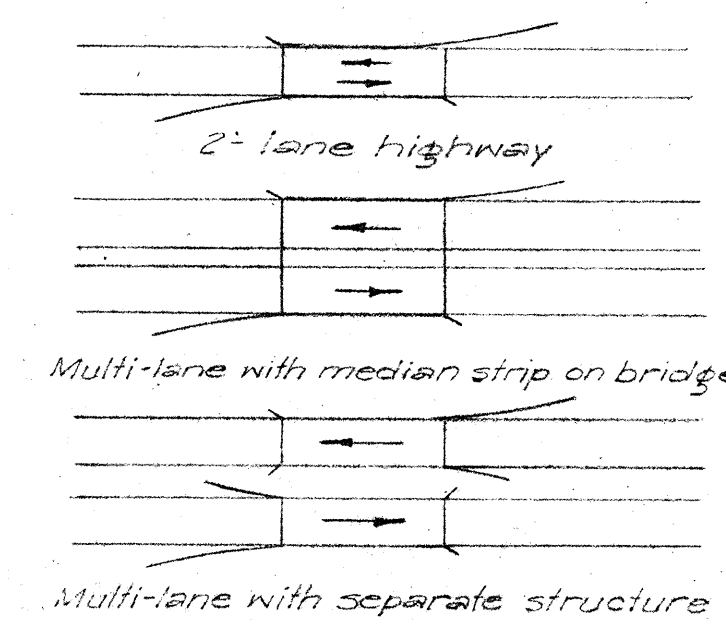


SECTION B-B
Scale: 1/2" = 1'-0"

NOTE: See Regulatory & Warning Signs Sheet
for details of W-42, W-43, and railing posts.



PLAN - METAL GUARDRAIL FLARE
Scale: $\frac{1}{8}" = 1'-0"$



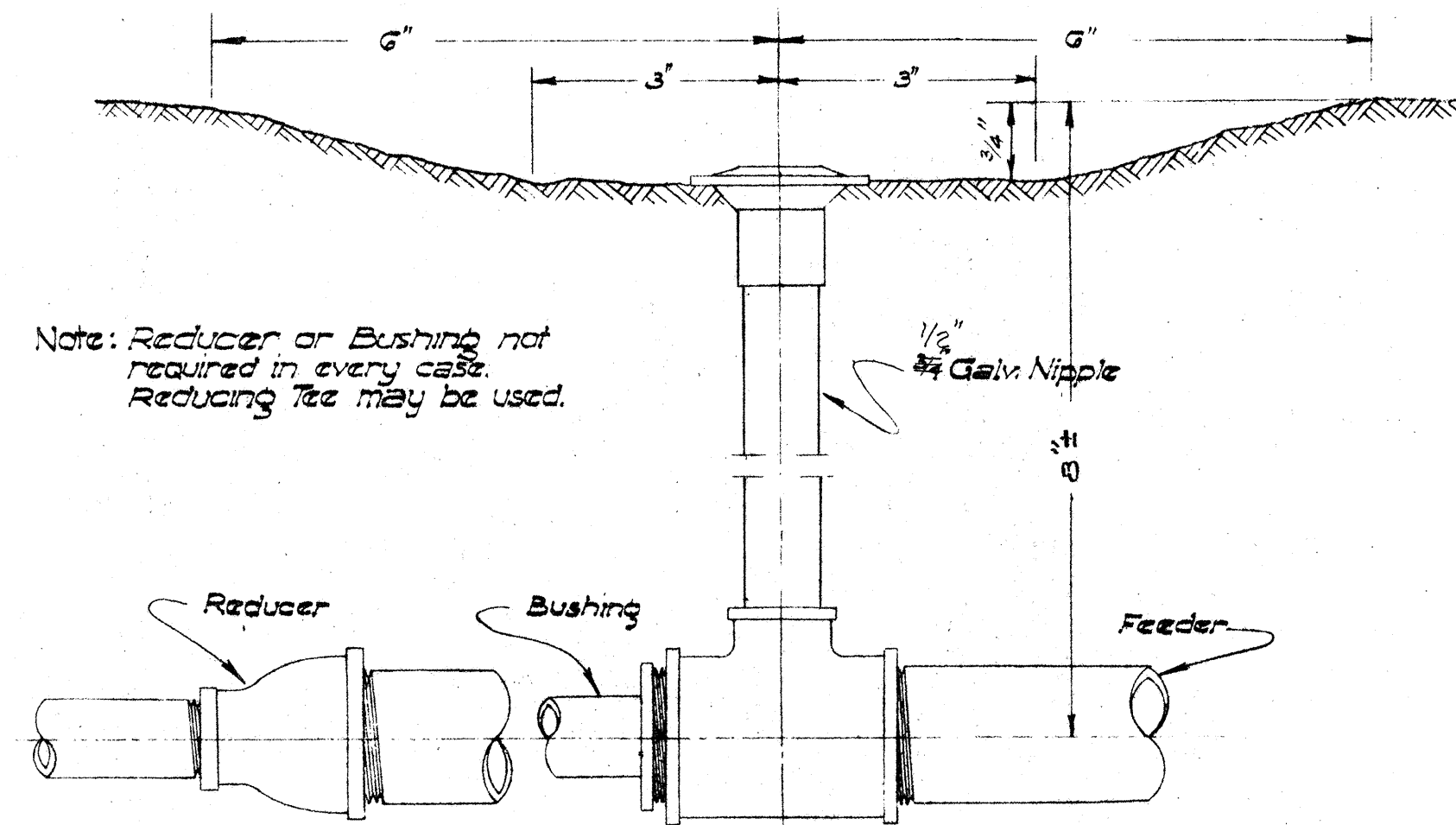
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARD RAIL DETAILS

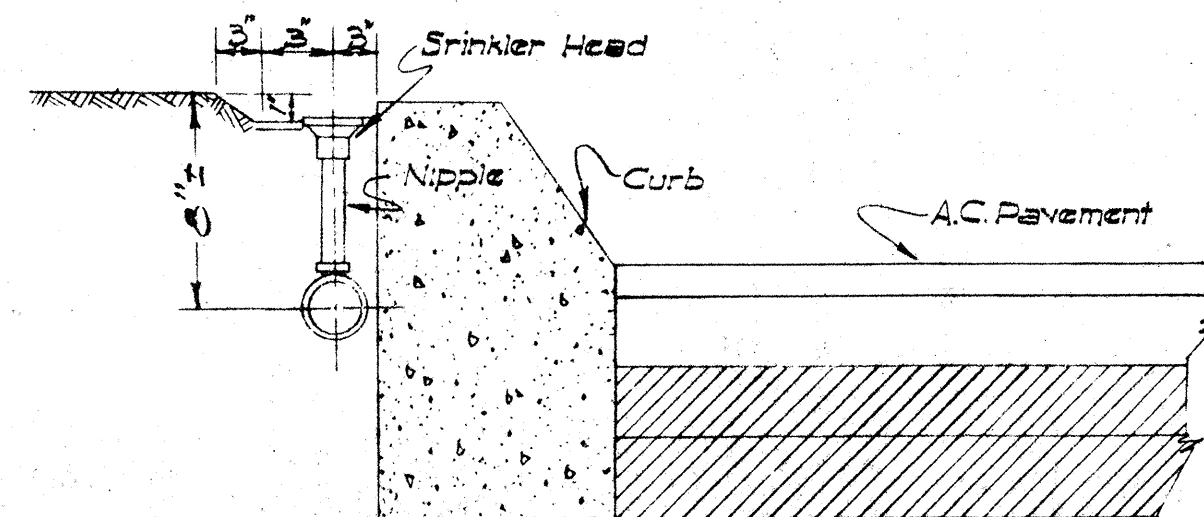
LUNALILO FREEWAY U-072-1 (10)
LIKELIKE HIGHWAY U-063-1 (1)
SCALE AS NOTED

SHEET No. OF SHEETS

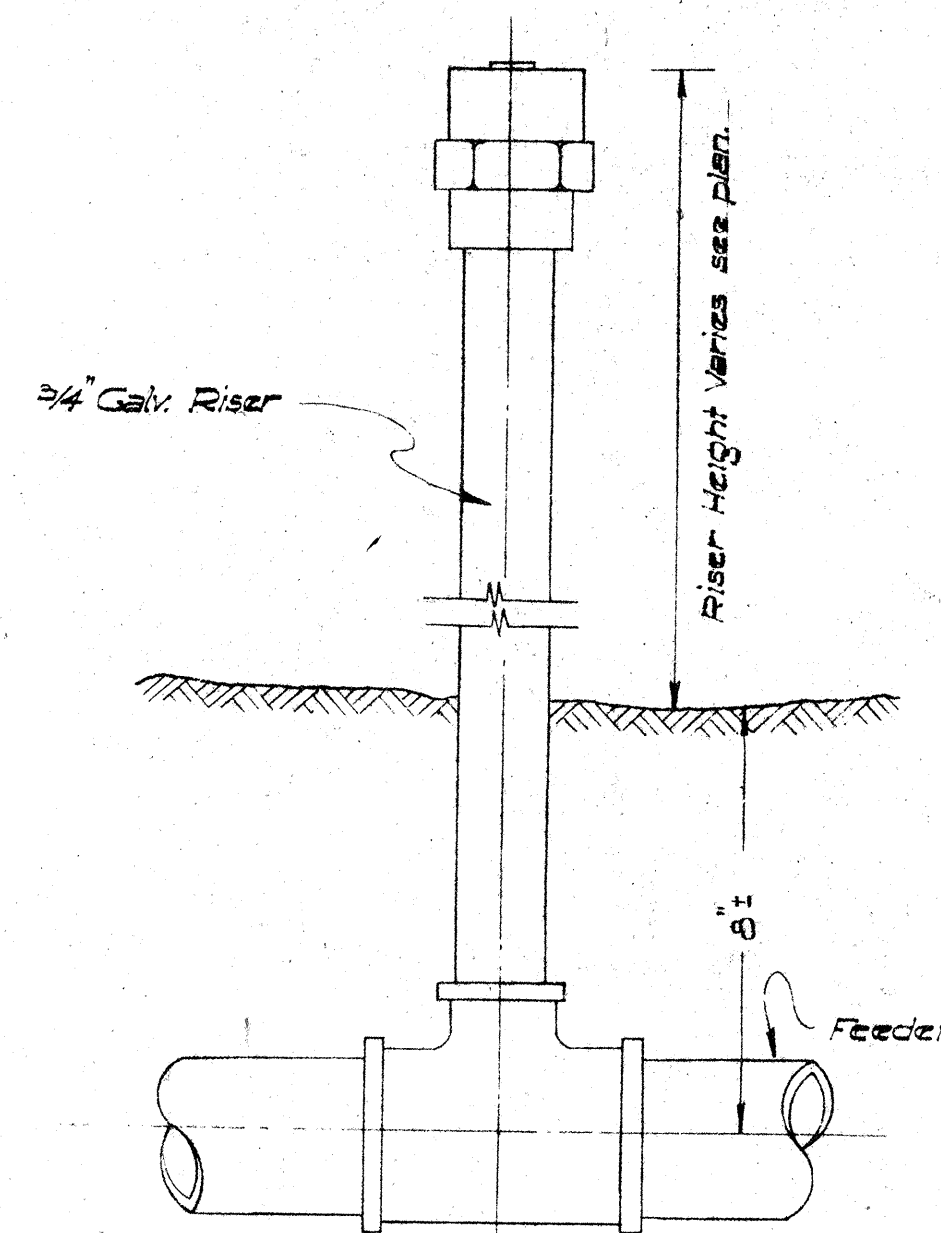
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-012-1(10)	1968	A 28	45
		U-0624(1)	1968	B 28	45



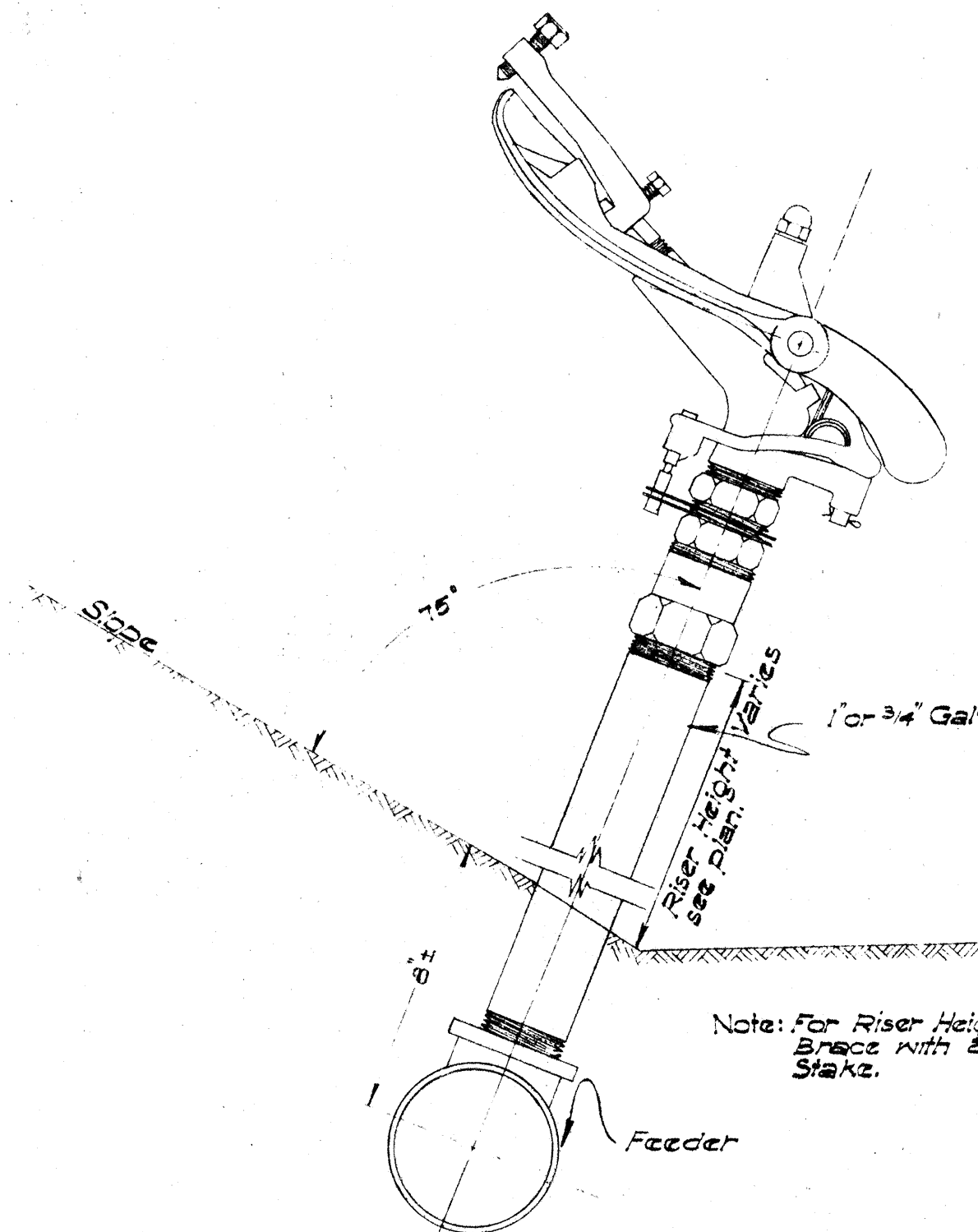
CONNECTION OF SPRINKLER HEAD TO FEEDER PIPE
Not to Scale



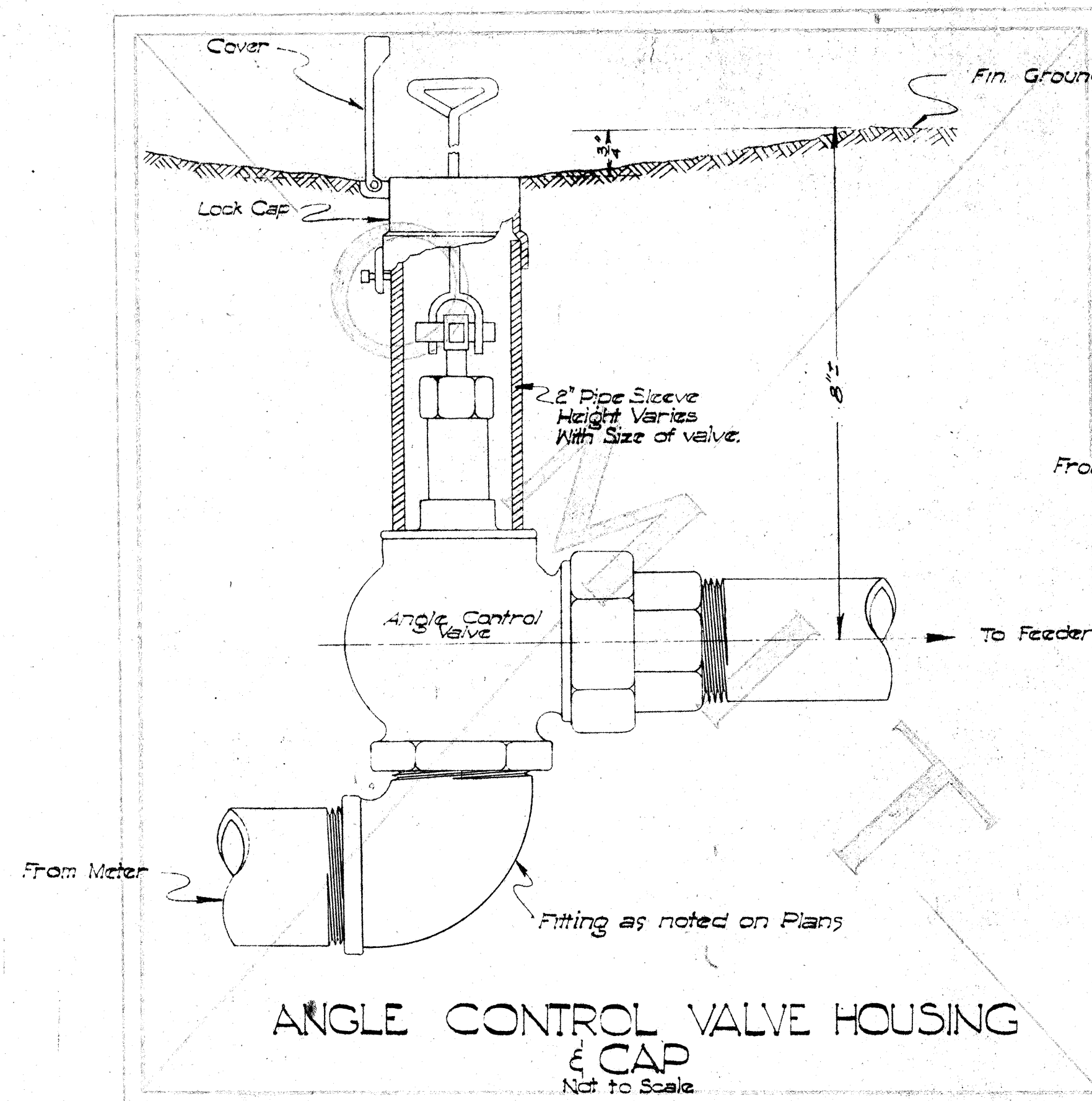
TYPICAL DETAIL OF SPRINKLER AT CONC. CURB
Not to Scale



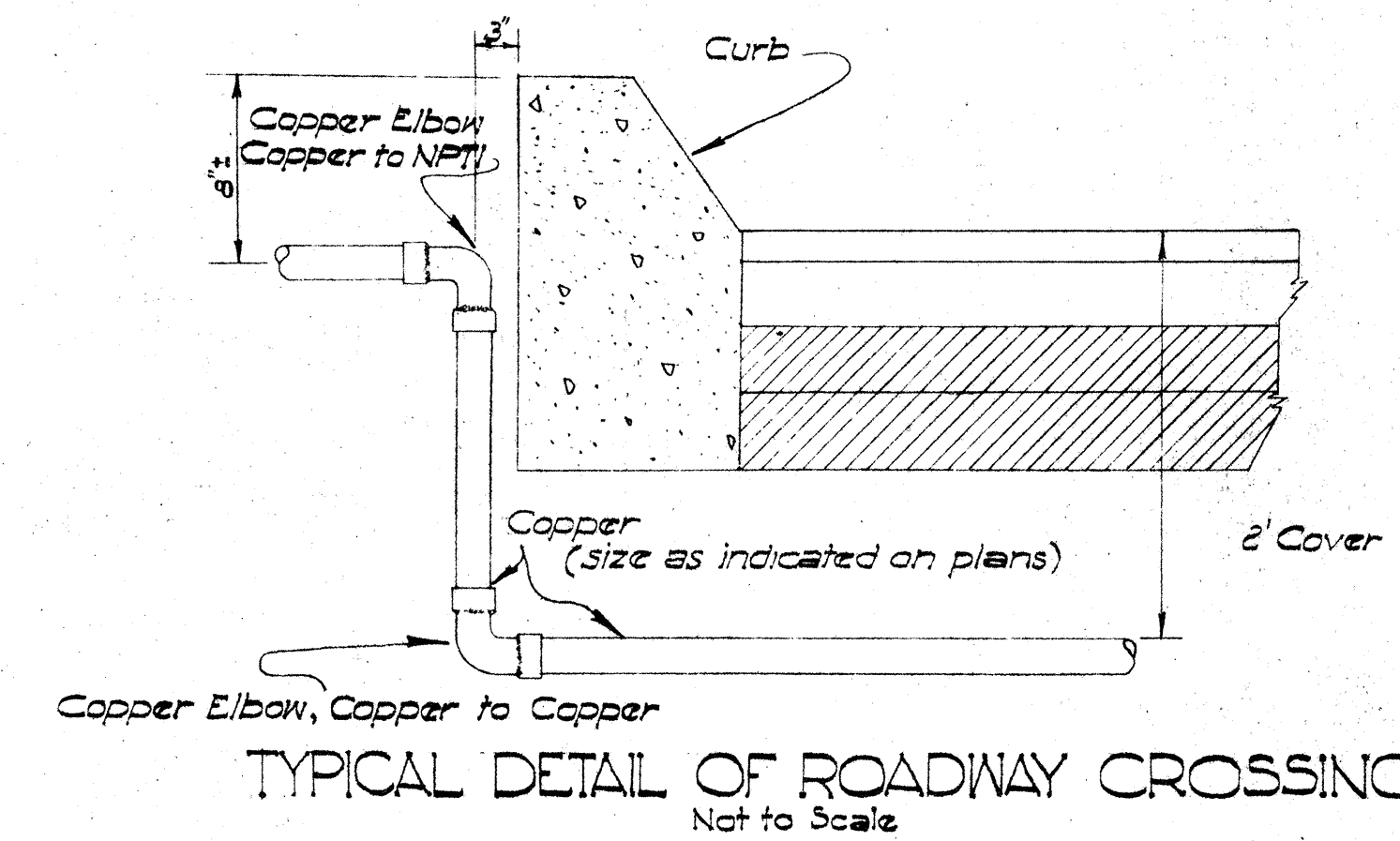
DETAIL OF SHRUBBERY HEAD
Not to Scale



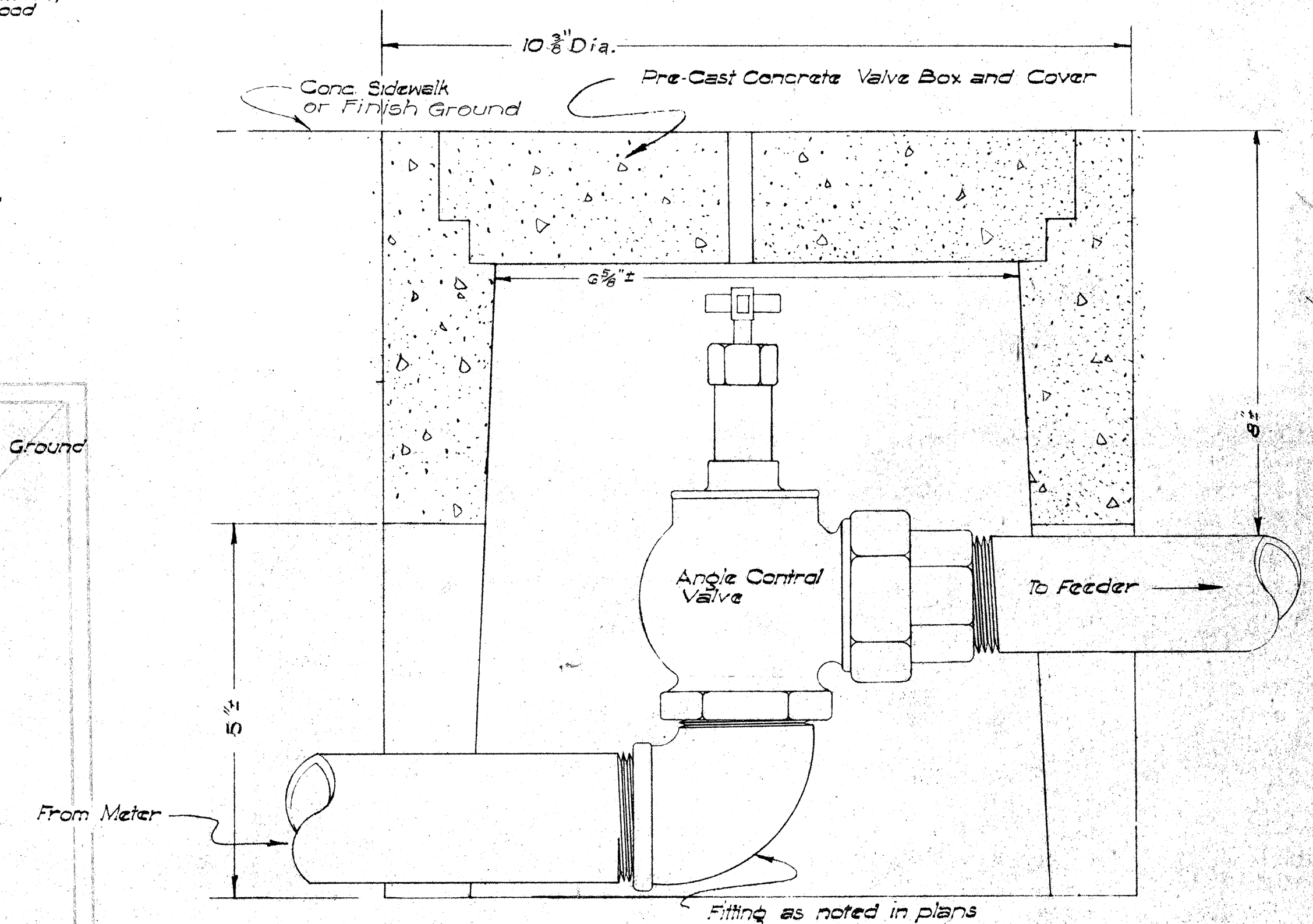
INSTALLATION OF JET SPRINKLER ON SLOPE
Not to Scale



ANGLE CONTROL VALVE HOUSING & CAP
Not to Scale



TYPICAL DETAIL OF ROADWAY CROSSING
Not to Scale



ANGLE CONTROL VALVE BOX
Not to Scale

GENERAL NOTES

1. All copper pipes shall be connected with solder type fittings of bronze castings or wrought copper.
2. Pipes not noted "Copper" are to be Galvanized Iron Screw Pipes, and fittings not noted "Copper" are to be Galvanized Malleable Iron Fittings.
3. After complete installation of the sprinkler system, each sprinkler head shall be adjusted to the satisfaction of the Engineer.

APPROVED DATE Aug. 25, 1968

DIRECTOR OF TRANSPORTATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
SPRINKLER SYSTEM

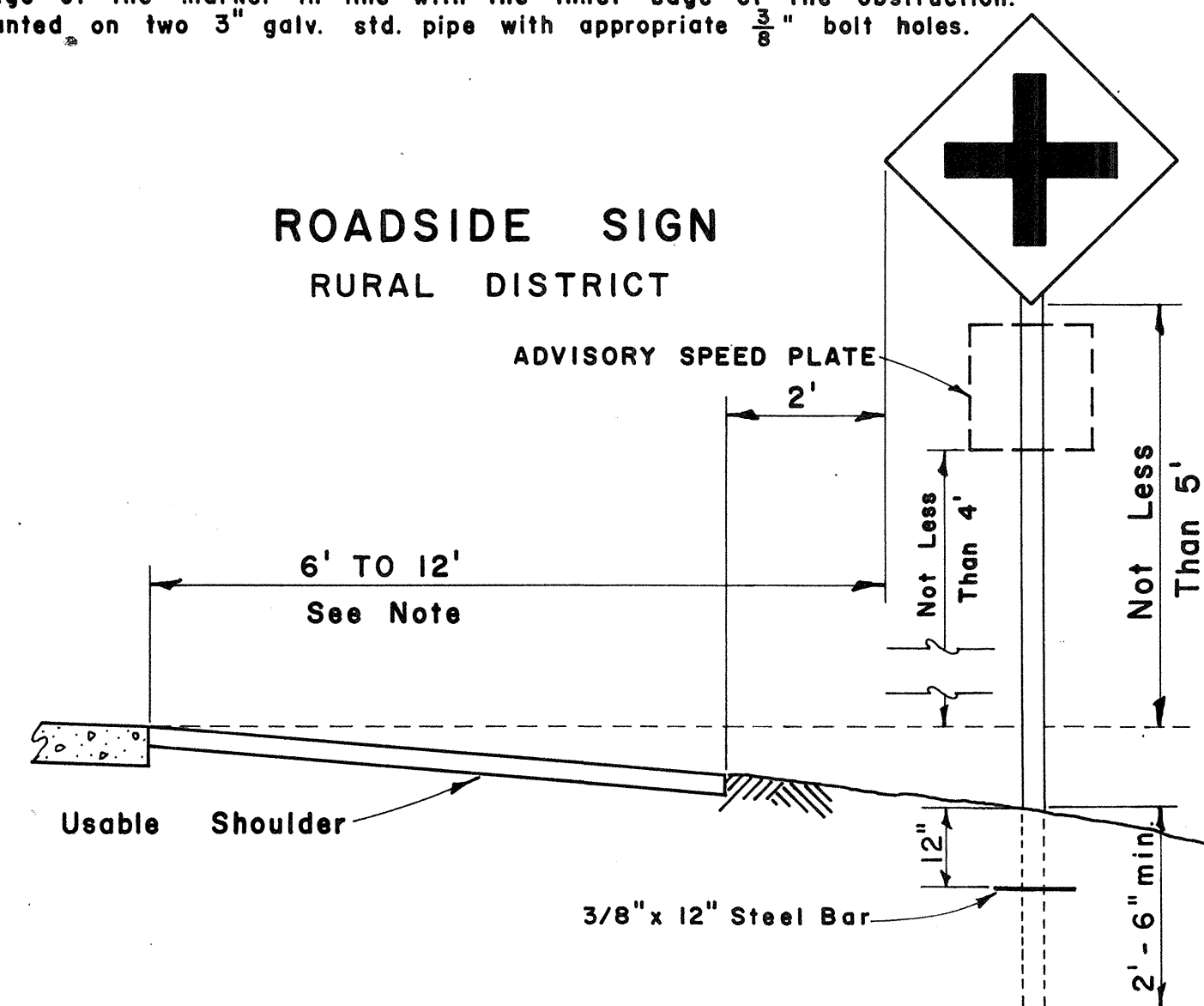
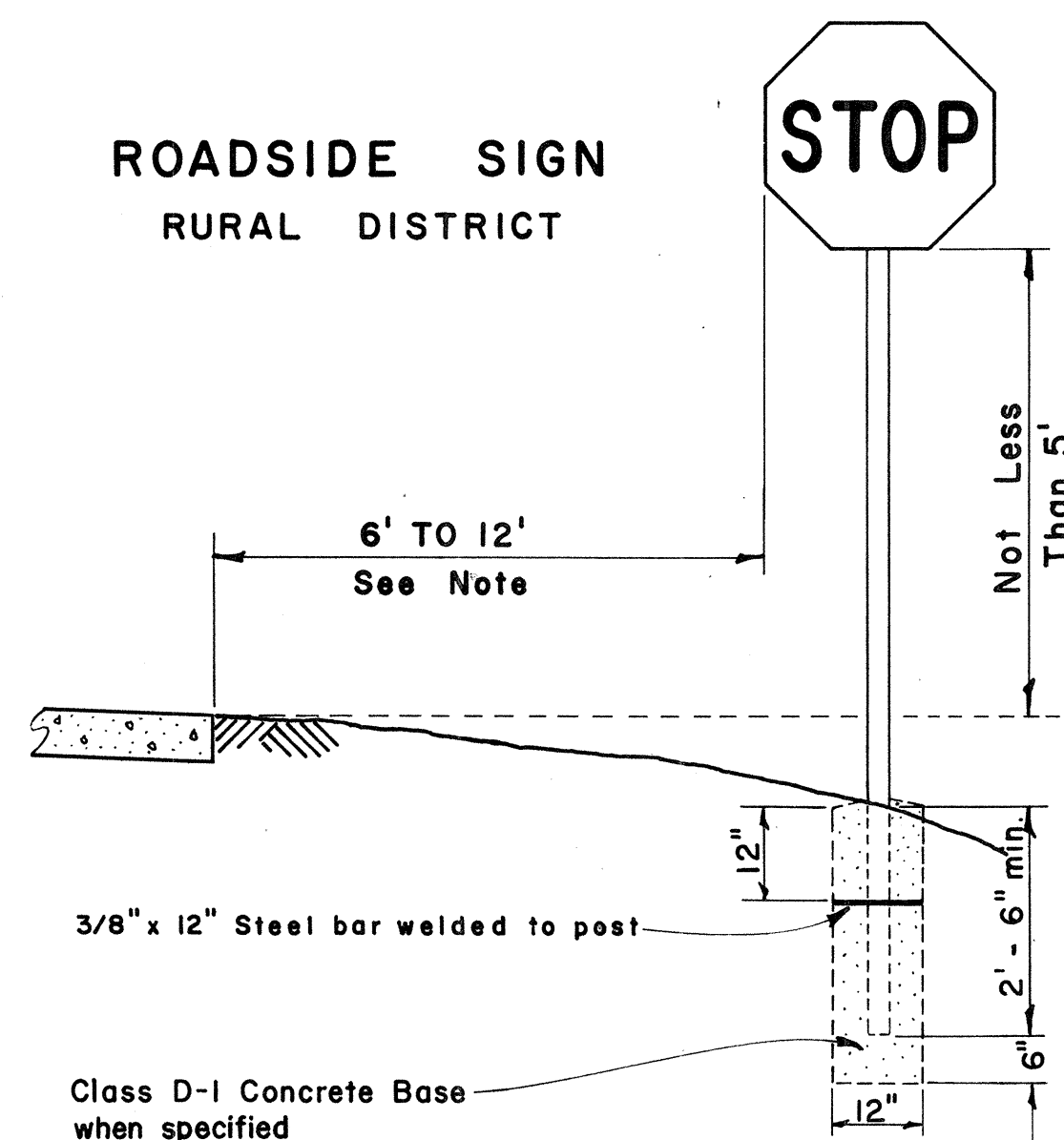
Not to Scale

SHEET NO. OF SHEETS

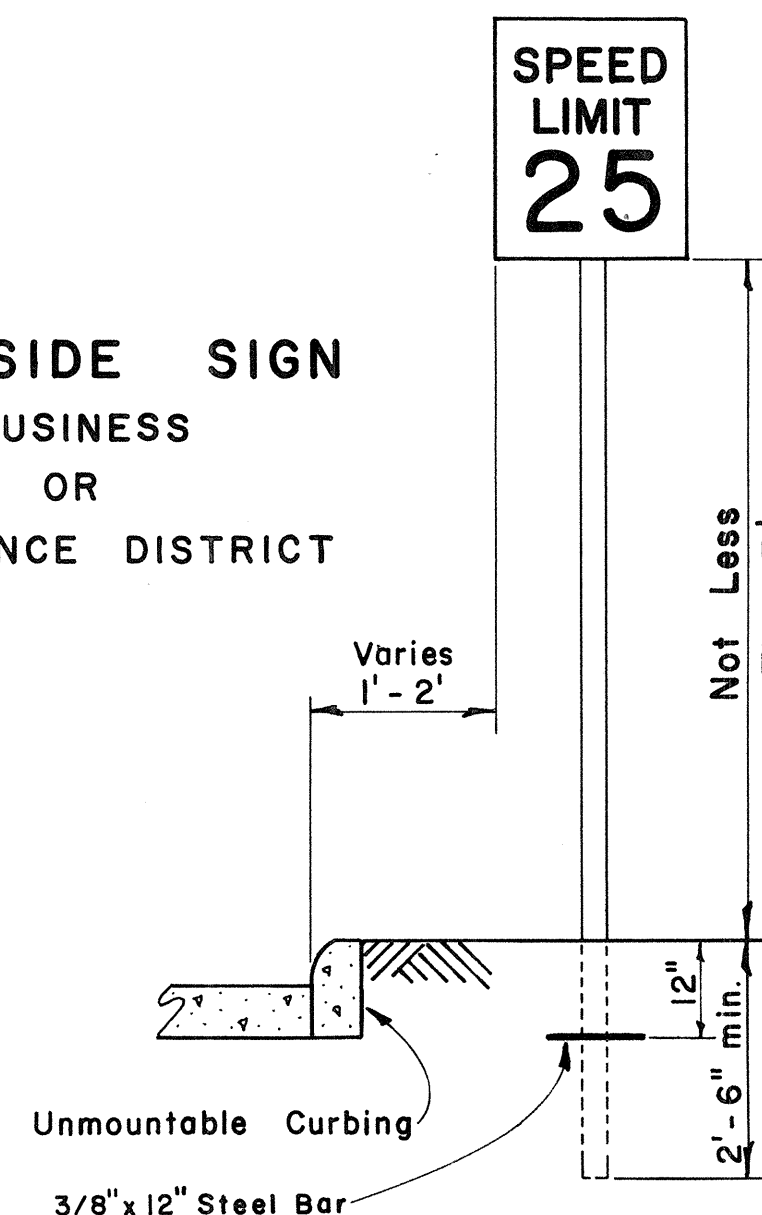
A 28 B 28

SURVEY PLOTTED BY	DATE
DESIGNED BY	4/22/68
DRAWN BY	
TRACED BY	
QUANTITIES CHECKED BY	
NOTE BOOK	
CHECKED BY	
NO.	

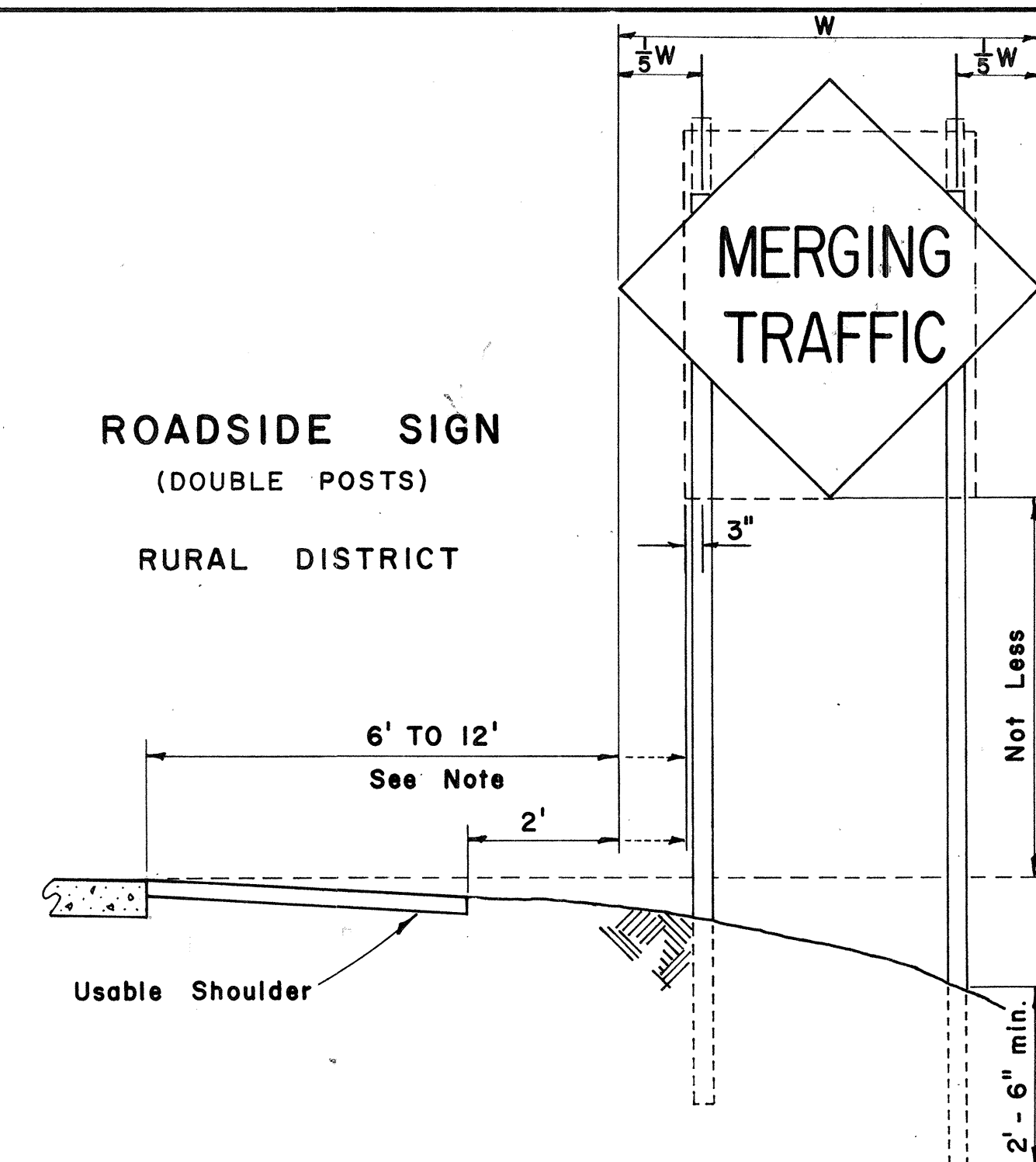
- NOTE:
1. All signs and road delineators shall be placed 2' outside the usable roadway shoulder or 1' outside unmountable curbing present and within the limits shown below.
 2. Except as noted below, sign posts shall be 3" galv. std. pipe for signs larger than 24" in any dimension and 2" galv. std. pipe for signs not over 24" in any dimension, with two $\frac{3}{8}$ " ϕ bolt holes or adjustable band brackets.
 3. Sign shall be attached to post with $\frac{5}{16}$ " galvanized carriage bolts with nuts and $\frac{7}{8}$ " x $\frac{7}{8}$ " x .120 stainless-steel washers with neoprene rubber gasket.
 4. Clearance Markers (RM-4, RM-3) shall be installed with the inside edge of the marker in line with the inner edge of the obstruction.
 5. Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 3" galv. std. pipe with appropriate $\frac{3}{8}$ " bolt holes.



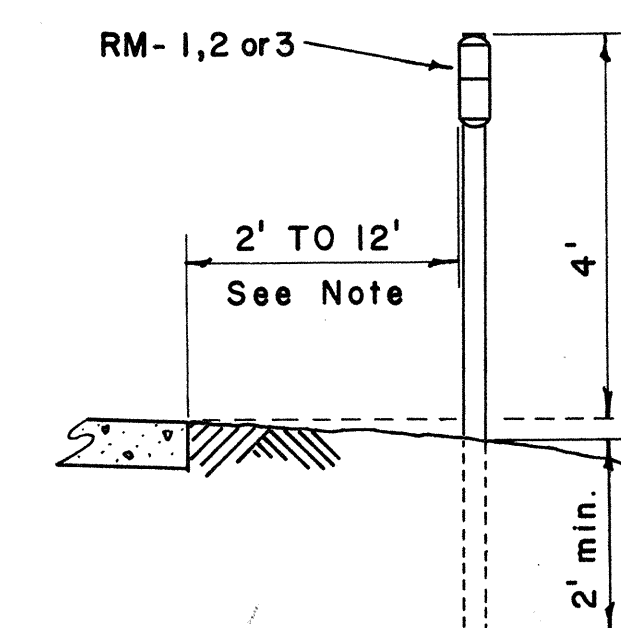
ROADSIDE SIGN
BUSINESS
OR
RESIDENCE DISTRICT



ROADSIDE SIGN
(DOUBLE POSTS)
RURAL DISTRICT

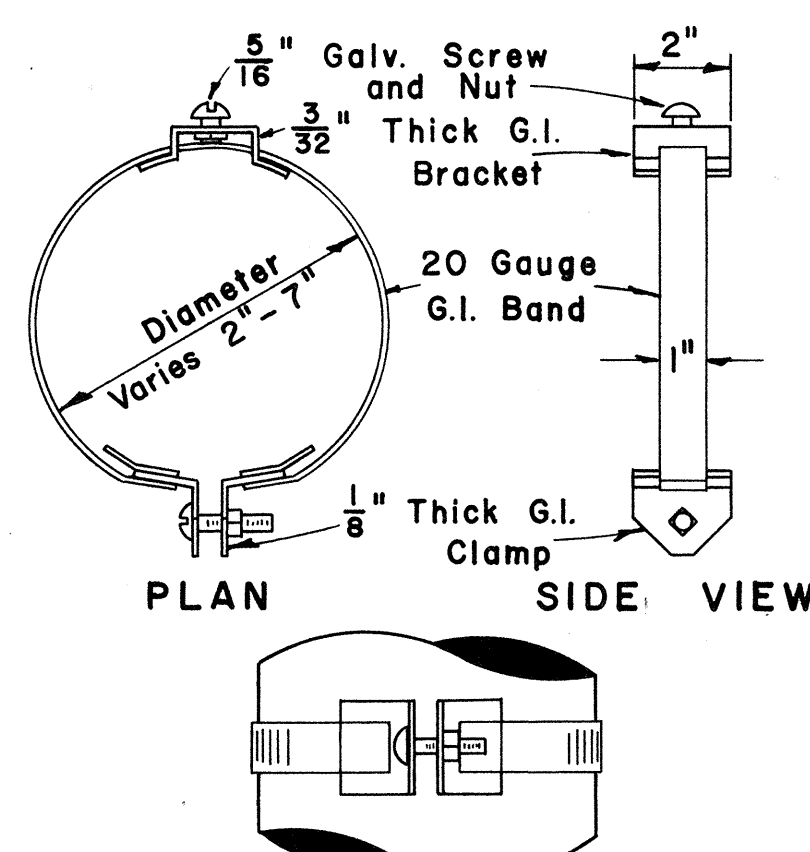
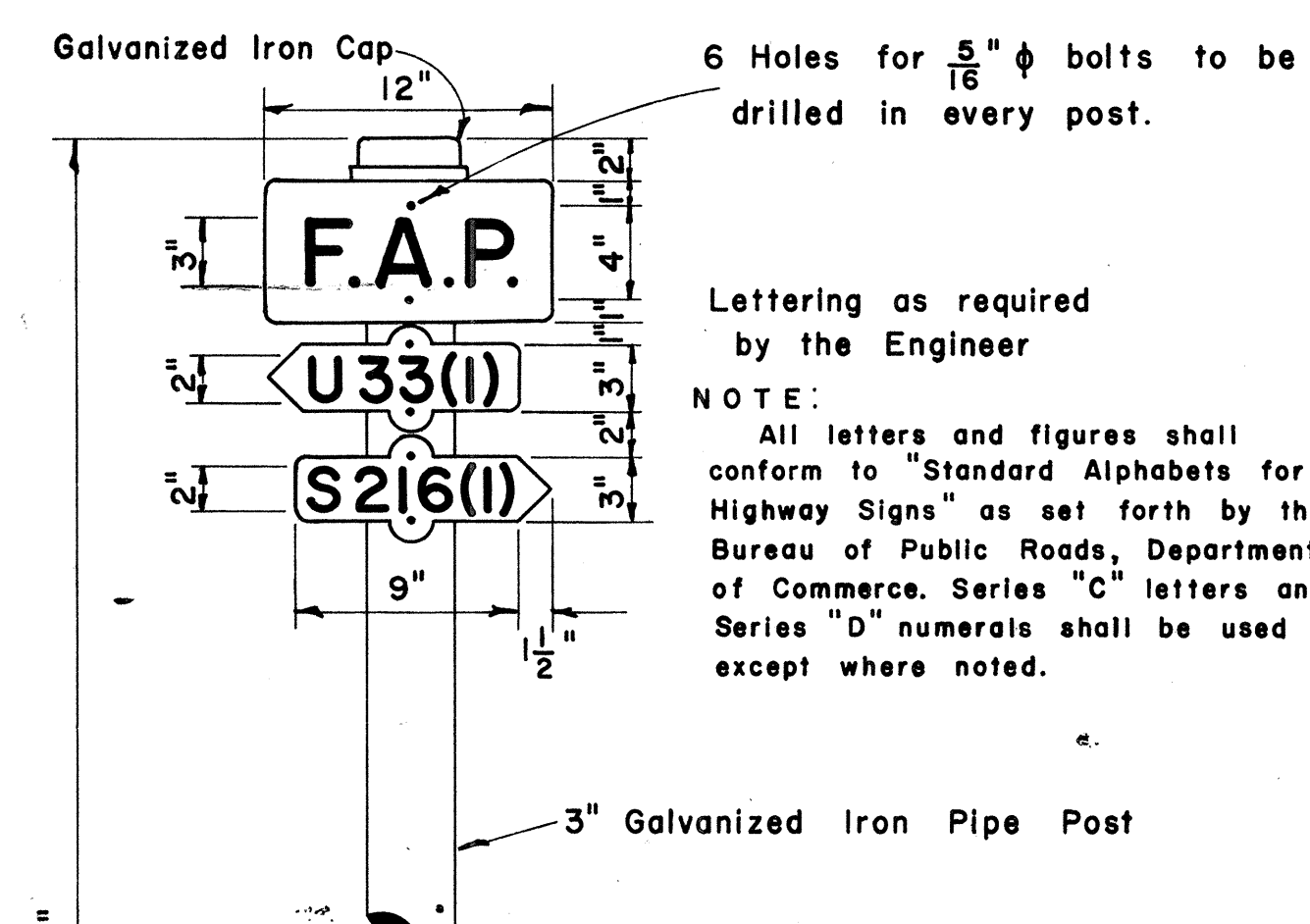


ROAD DELINEATOR

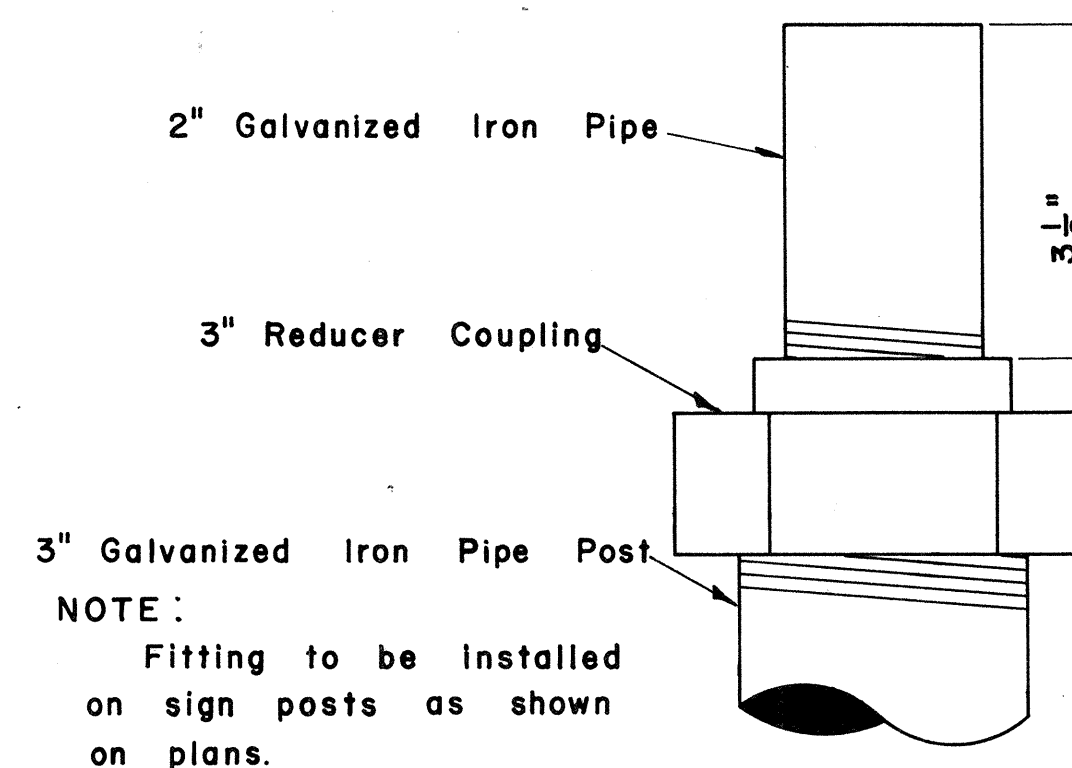


HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS

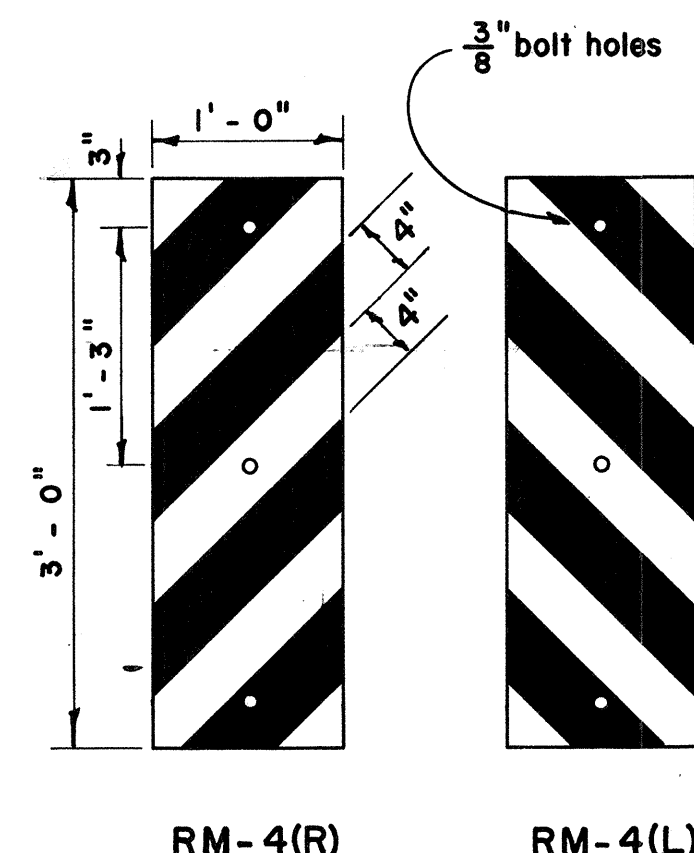
Scale: $\frac{1}{2}$ " = 1' - 0"



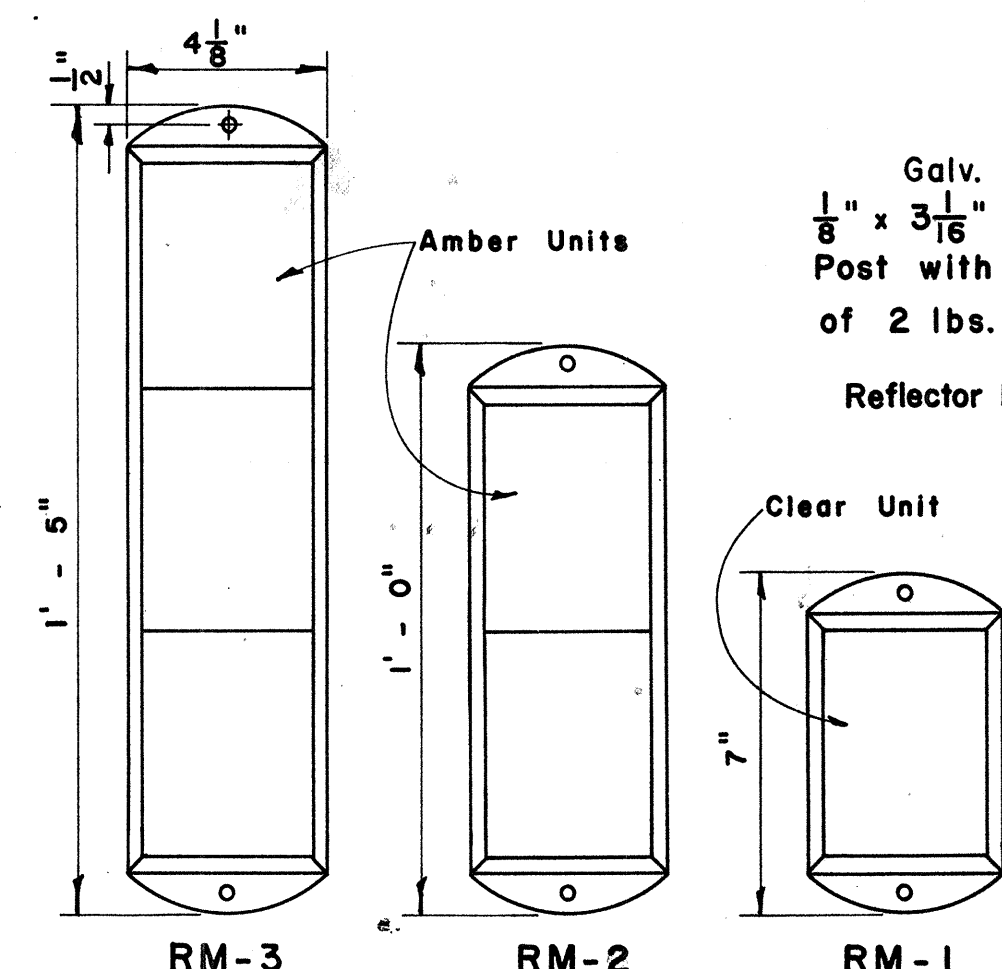
ADJUSTABLE BAND BRACKET
FOR MOUNTING TRAFFIC SIGNS
Scale: 3" = 1' - 0"



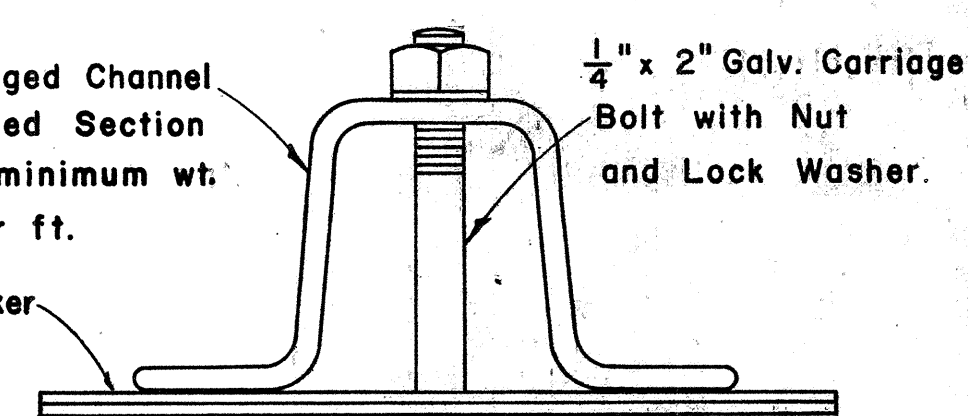
DETAIL OF SIGN POST FITTING
FOR CITY & COUNTY
STREET NAME SIGNS
Scale: $\frac{1}{2}$ " = 1"



Scale: 1" = 1' - 0"

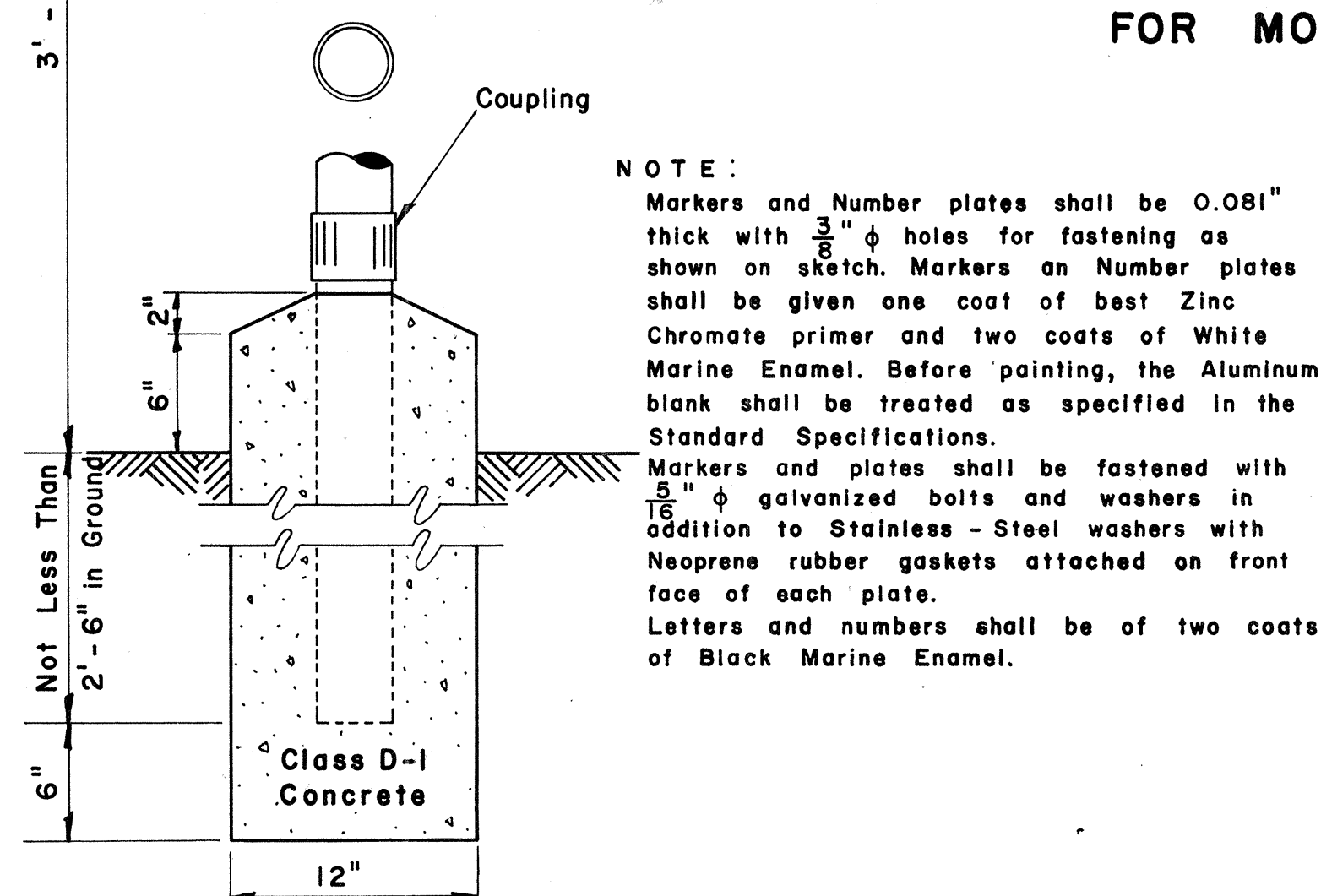


Scale: 3" = 1' - 0"

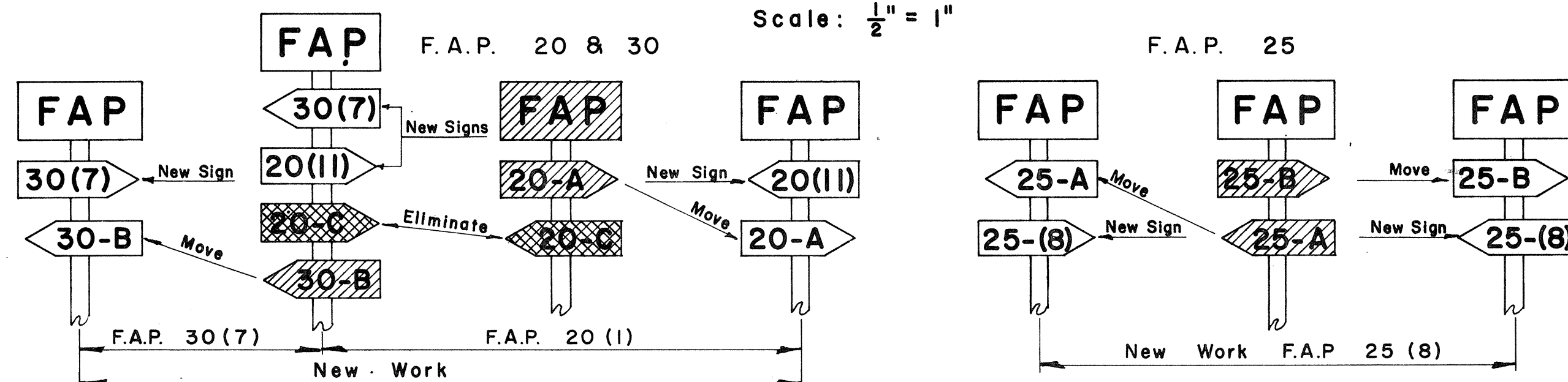


TYPICAL SECTION
OF ROAD DELINEATOR
Full Size

NOTE:
Reflector Units for RM-1,2,3 shall be 4" x 5" in size and shall consist of reflective sheeting encapsulated in acrylic plastic.

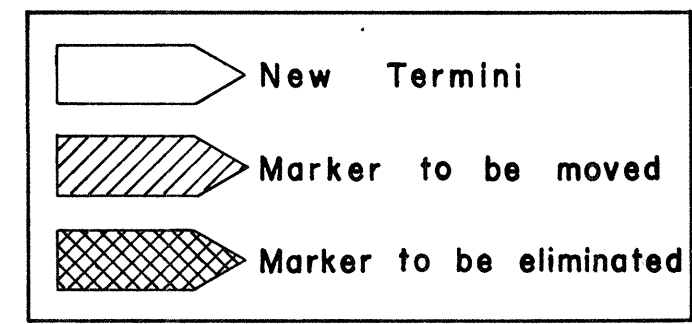


FEDERAL AID MARKER
Scale: $\frac{1}{2}$ " = 1' - 0"



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 should be followed on each successive improvement until all markers for letter designated sections are eventually eliminated.

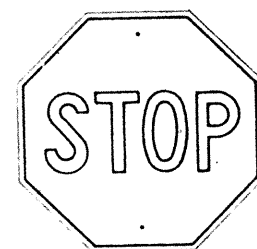
METHOD OF MARKING F.A. PROJECTS AT OVERLAPS
(USING NUMBER SUFFIX ON NEW WORK)



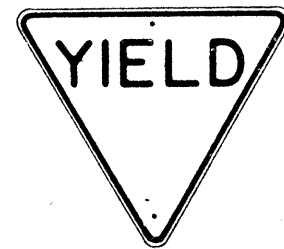
APPROVED: _____ DATE: 1/23/67
DIRECTOR OF TRANSPORTATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
F.A. MARKER
AND
MISCELLANEOUS SIGN
DETAILS
Scale: As Shown

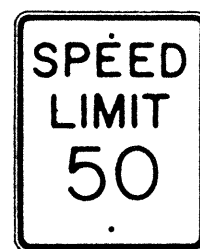
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	4-072-1(10)	1963	A 30	45
		4-063-1(1)	1963	B 30	45



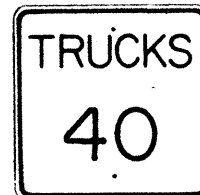
R1-1 30"x 30"



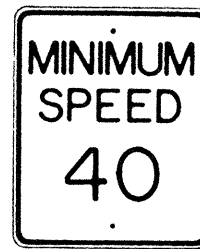
R1-2 36"x 36"x 36"
R1-2-E 48"x 48"x 48"
R1-2-I 60"x 60"x 60"



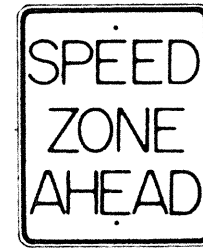
R2-1(50) 24"x 30"
R2-1(50)-E 36"x 48"
R2-1(50)-I 48"x 60"



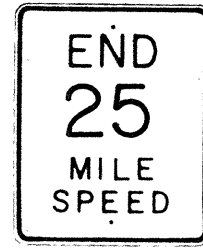
R2-2(40) 24"x 24"
R2-2(40)-E 36"x 36"
R2-2(40)-I 48"x 48"



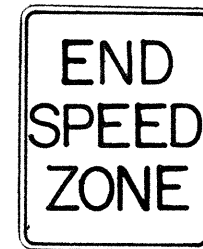
R2-4(40) 24"x 30"
R2-4(40)-E 36"x 48"
R2-4(40)-I 48"x 60"



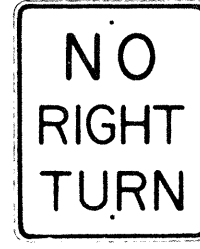
R2-5 24"x 30"
R2-5-E 36"x 48"
R2-5-I 48"x 60"



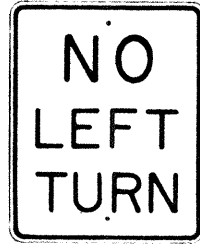
R2-6(25) 24"x 30"
R2-6(25)-E 36"x 48"
R2-6(25)-I 48"x 60"



R2-7 24"x 30"
R2-7-E 36"x 48"
R2-7-I 48"x 60"



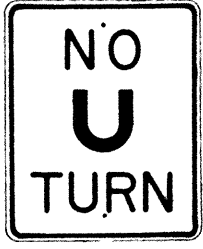
R3-1 24"x 30"
R3-1-E 36"x 48"



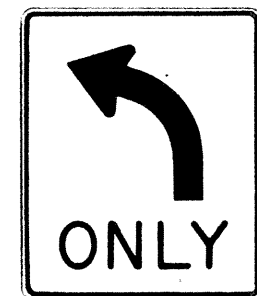
R3-2 24"x 30"
R3-2-E 36"x 48"



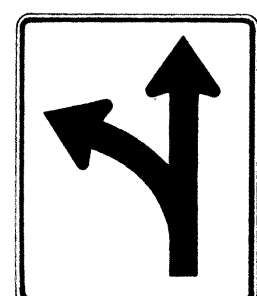
R3-3 24"x 24"



R3-4 24"x 30"
R3-4-E 36"x 48"
R3-4-I 48"x 60"



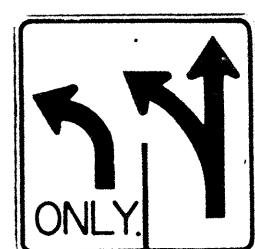
R3-5(L) 30"x 36"



R3-6(L) 30"x 36"



R3-7(R) 30"x 30"



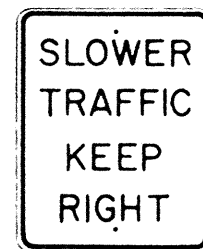
R3-8(L) 30"x 30"



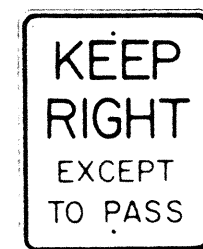
R4-1 24"x 30"



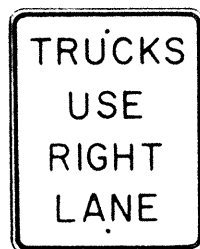
R4-2 24"x 30"



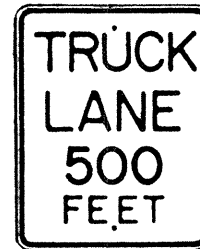
R4-3 24"x 30"
R4-3-E 36"x 48"
R4-3-I 48"x 60"



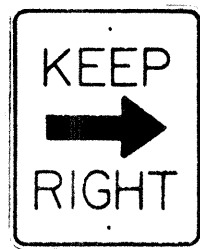
R4-4 24"x 30"
R4-4-E 36"x 48"
R4-4-I 48"x 60"



R4-5 24"x 30"
R4-5-E 36"x 48"



R4-6 24"x 30"
R4-6-E 36"x 48"



R4-7(R) 24"x 30"
R4-7(R)-E 36"x 48"



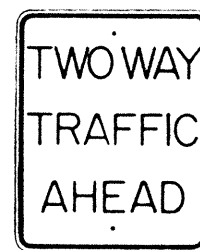
R5-1 24"x 24"



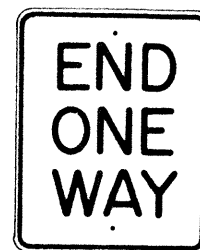
R6-1(R) 36"x 12"



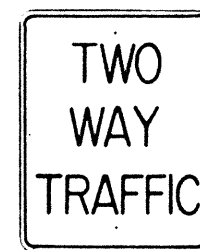
R6-2(R) 18"x 24"



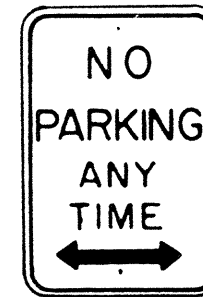
R6-3 24"x 30"



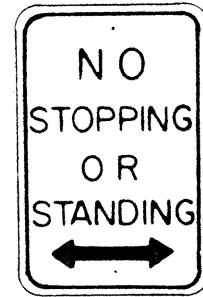
R6-4 24"x 30"



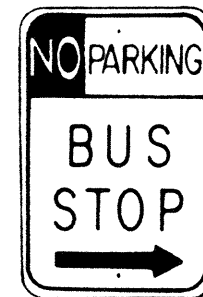
R6-5 24"x 30"



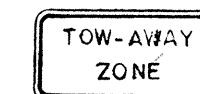
R7-1 12"x 18"



R7-4 12"x 18"
R7-4-E 24"x 30"



R7-107(R) 12"x 18"



R7-201 12"x 6"



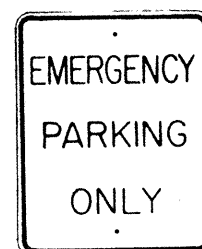
R8-1 24"x 30"
R8-1-E 36"x 48"
R8-1-I 48"x 60"



R8-2 24"x 30"
R8-2-E 36"x 48"



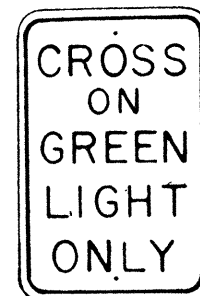
R8-3 24"x 30"
R8-3-E 36"x 48"



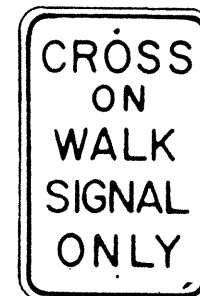
R8-4 24"x 30"
R8-4-E 36"x 48"
R8-4-I 48"x 36"



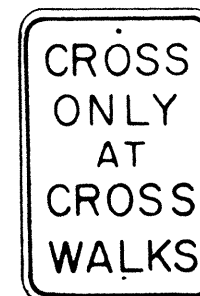
R9-1 18"x 24"



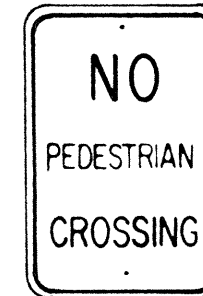
R9-2 12"x 18"



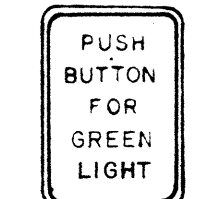
R9-3 12"x 18"



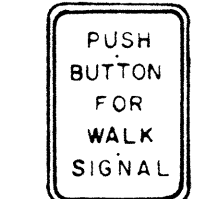
R9-4 12"x 18"



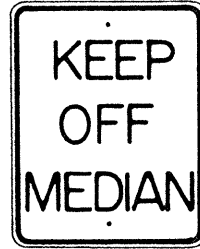
R9-5 12"x 18"



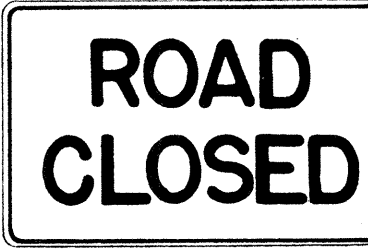
R9-6 9"x 12"



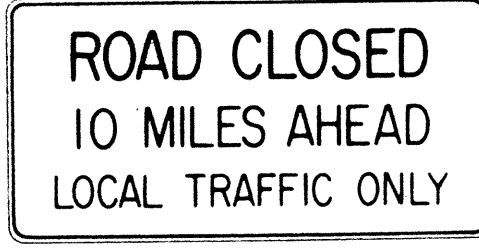
R9-7 9"x 12"



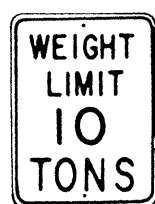
R10-1 24"x 30"
R10-1-E 36"x 48"
R10-1-I 48"x 60"



R10-2 48"x 30"



R10-3(10) 60"x 30"



R10-4(10) 18"x 24"

NOTE:

- The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
- All regulatory signs shall be reflectorized unless otherwise specified.
- All regulatory signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise noted.
- The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
- For R2 signs, number in () indicates speed and shall be as shown on the plans.
- (R) or (L) indicates right or left and shall be as shown on the plans.
- For R10-4 sign, number in () indicates weight and shall be as shown on the plan.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
REGULATORY SIGNS

NOT TO SCALE

SHEET No. OF SHEETS

A 30 B 30

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-100	1963	A 31	45
		U-063-1(1)	1963	B 31	45

WI-1(R) 30" x 30"

WI-2(R) 30" x 30"

WI-3(R) 30" x 30"

WI-4(R) 30" x 30"

WI-5(R) 30" x 30"

WI-6 48" x 24"

WI-7 48" x 24"

W2-1 30" x 30"

W2-2 30" x 30"

W2-3(R) 30" x 30"

W2-4 30" x 30"

W2-5 30" x 30"

W3-1 30" x 30"

W3-2 30" x 30"

W3-3 36" x 36"

W4-1 30" x 30"

W4-2 30" x 30"

W5-1 30" x 30"

W5-2 30" x 30"

W5-3 30" x 30"

W6-1 36" x 36"

W6-2 36" x 36"

W7-1 30" x 30"

W8-1 30" x 30"

W8-2 30" x 30"

W8-3 30" x 30"

W8-4 30" x 30"

W8-5 30" x 30"

W9-1 30" x 30"

W9-2 30" x 30"

W10-1 36" DIAMETER

W11-1 30" x 30"

W11-5 30" x 30"

W12-2 36" x 36"

W13-1(35) 18" x 18"

W13-2(25) 12" x 18"

W13-3(25) 48" x 60"

- NOTE:
- The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
 - All warning signs shall be reflectorized unless otherwise specified.
 - All warning signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise noted.
 - (R) or (L) indicates right or left and shall be as shown on the plan.
 - The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
 - For W13 sign, number in () indicates speed and shall be as shown on the plans.

SURVEY PLOTTED BY	DATE
DRAWN BY	" "
DESIGNED BY	" "
QUANTITIES BY	" "
CHECKED BY	" "
ORIGINAL PLAN	No. _____
NOTE BOOK	" "

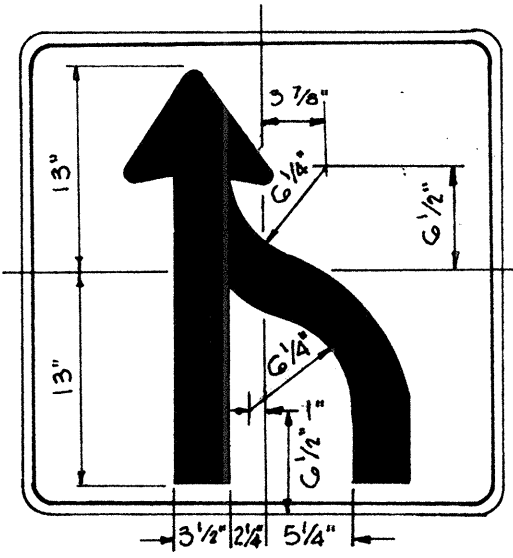
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
WARNING SIGNS

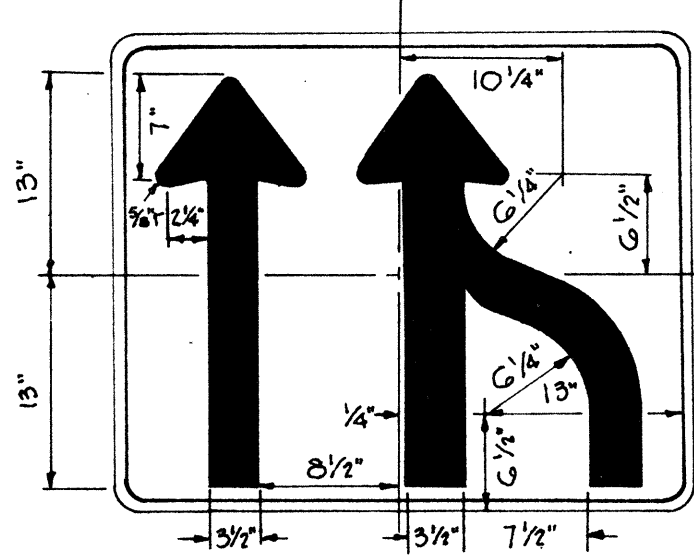
NOT TO SCALE

SHEET No. OF SHEETS

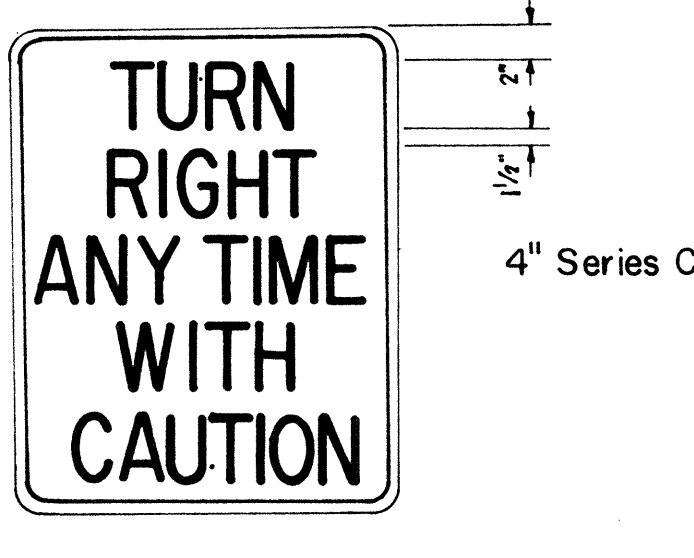
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U 072-1(10)	1963	A 32	45
		U 063-1(1)	1963	B 32	45



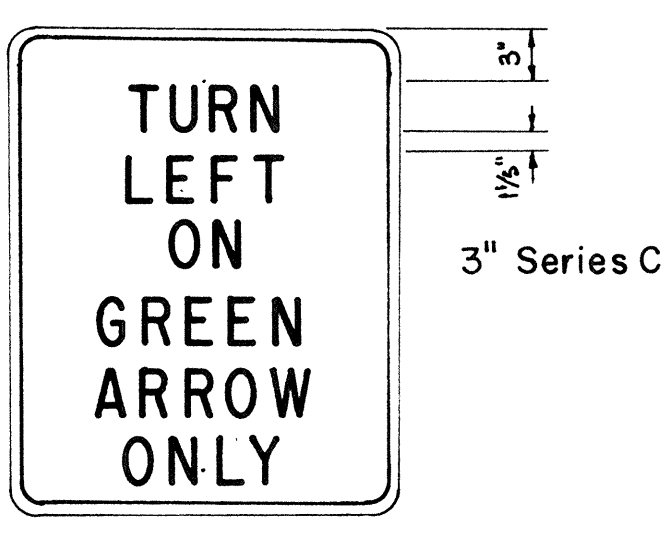
R3 - 9 30"x 30"



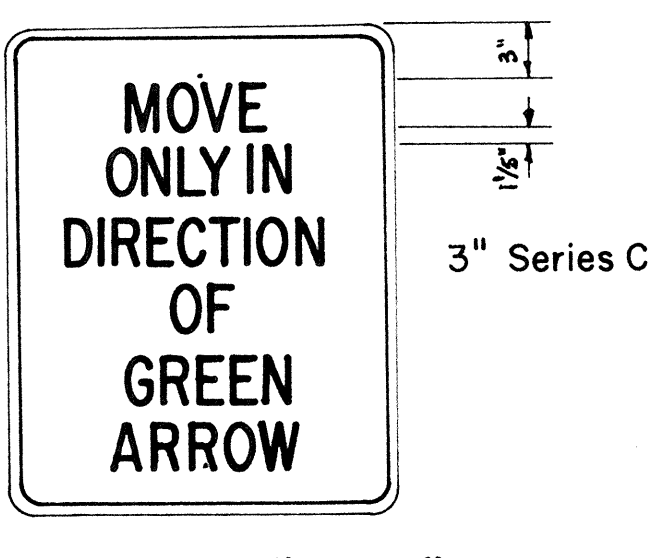
R3 - 10 36"x 30"



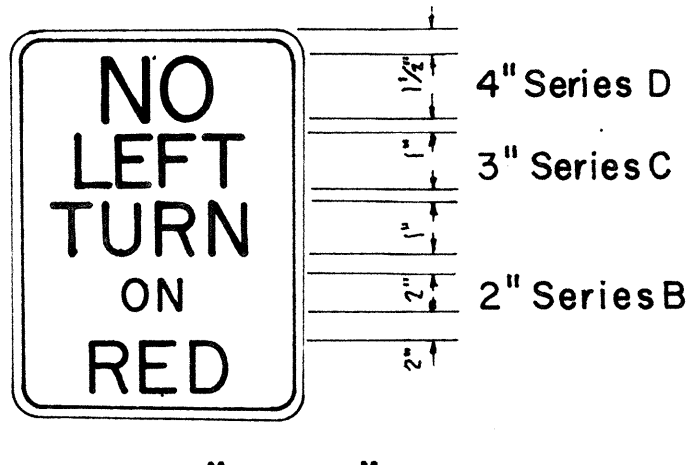
R15 - 1 24"x 30"



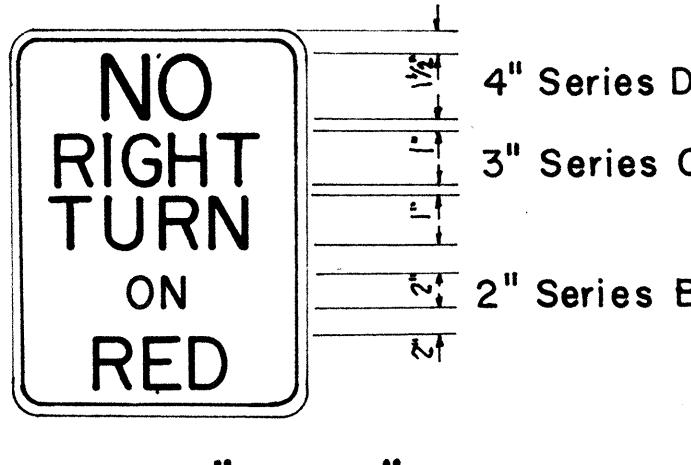
R16 - 1 24"x 30"



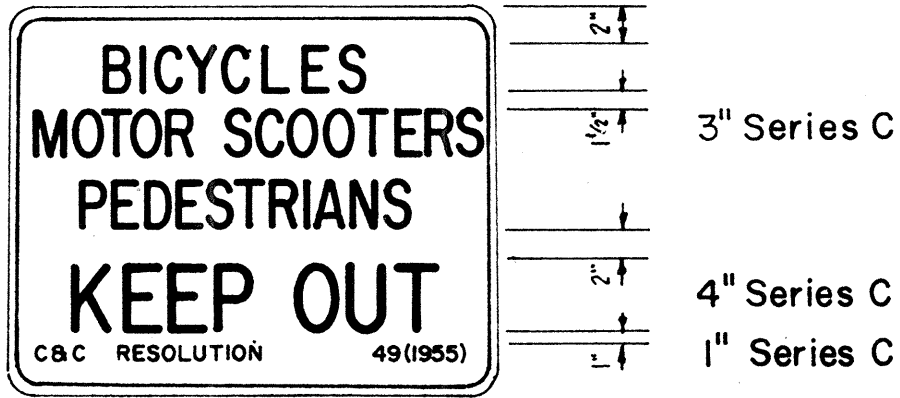
R16 - 2 24"x 30"



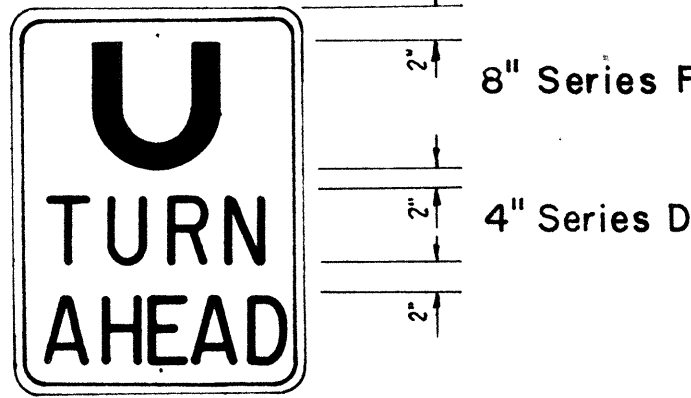
R17 - 1 18"x 24"



R17 - 2 18"x 24"



R18 - 1 30"x 24"



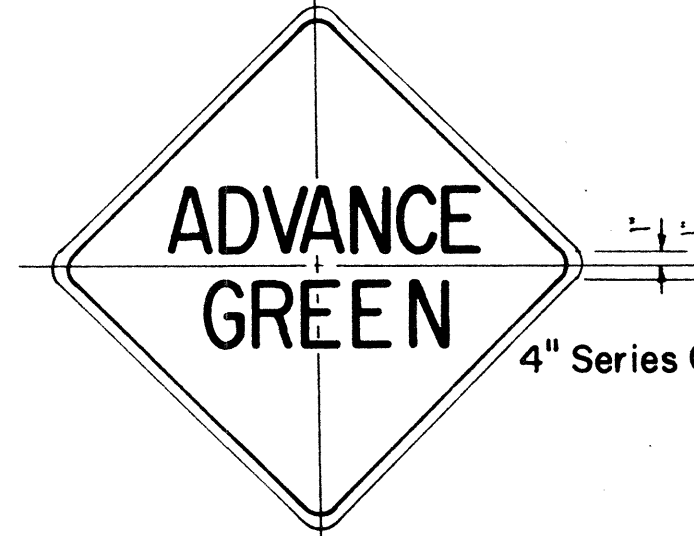
R19 - 1 18"x 24"



W13 - 4 24"x 24"



W15 - 1 24"x 24"



W15 - 2 24"x 24"

- NOTE:
- The shape, color, plate details, lettering and reflectorization of Regulatory signs (Prefix R) and Warning signs (Prefix W) shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
 - All regulatory and warning signs shall be reflectorized unless otherwise specified.
 - All regulatory and warning signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise noted.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED BY	DRAWN BY	
NOTED BY	TRACED BY	
NOTED BY	QUANTITIES BY	
NOTED BY	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS
REGULATORY & WARNING SIGNS
Scale: 1" = 1'-0"

SHEET No. OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(60)	1962	A33	45
		U-062-1(1)	1963	B33	45



W 7-2 48"x48"



W8-7 30"x30"



W14-1 30"x30"



W20-1a 48"x48"



W20-2d 48"x48"



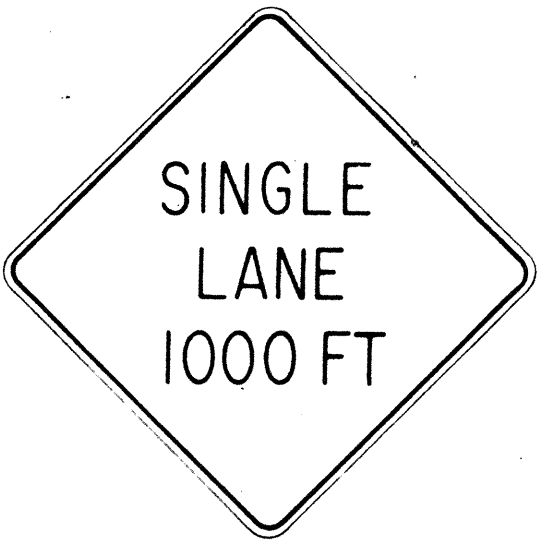
W20-3b 48"x48"



W20-4d 48"x48"



W20-5d(L) 48"x48"



W20-6b 48" x 48"



W20-7c 48" x 48"



W21-1 30" x 30"



W21-2 24"x24"



W21-3 36"x36"



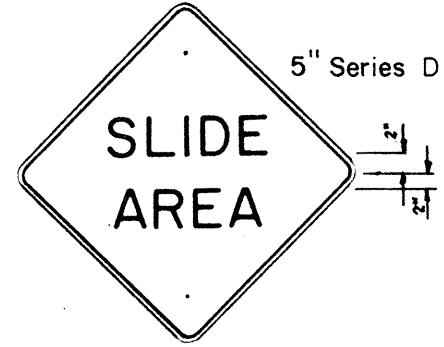
W21-4 30"x30"



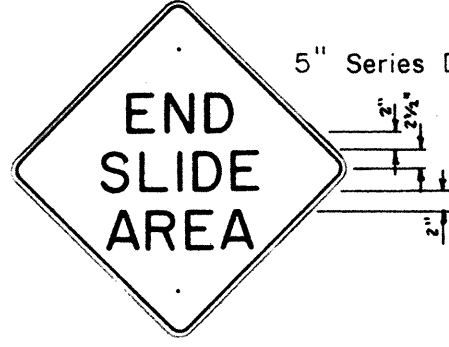
W21-5 30"x30"



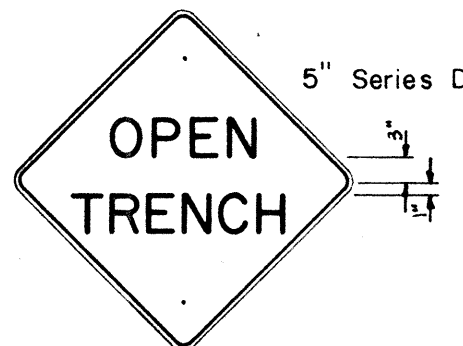
W21-6 30"x30"



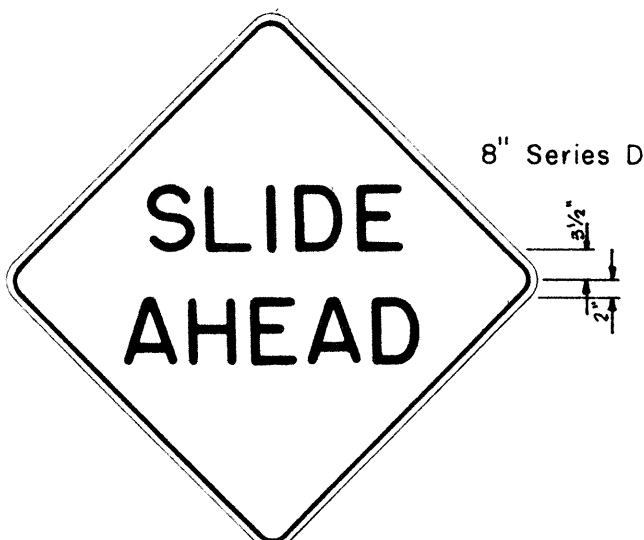
W22-1 30"x30"



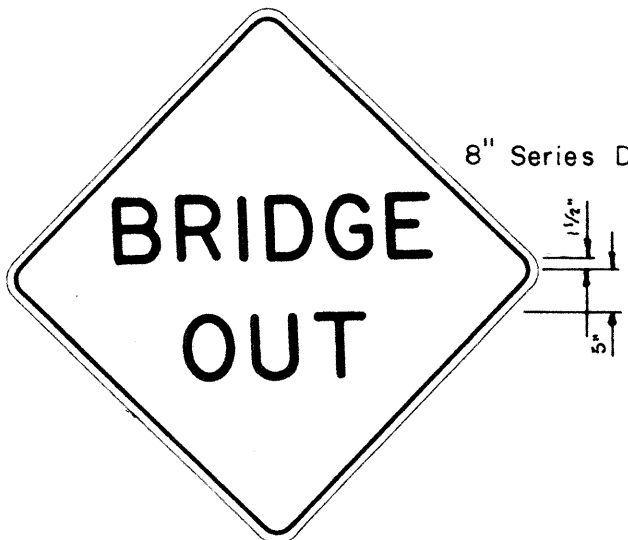
W22-2 30"x30"



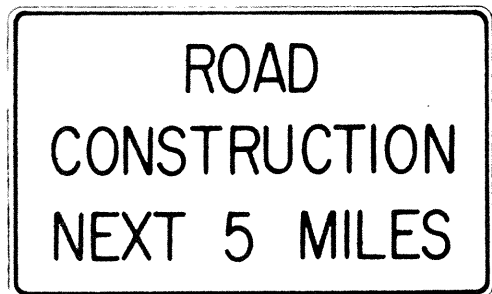
W22-3 30" x 30"



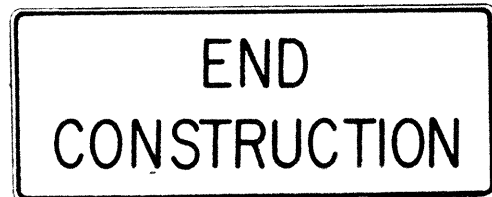
W22-4 48" x 48"



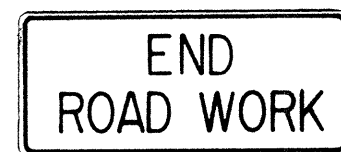
W22-5 48" x 48"



G20-1(5) 60"x36"



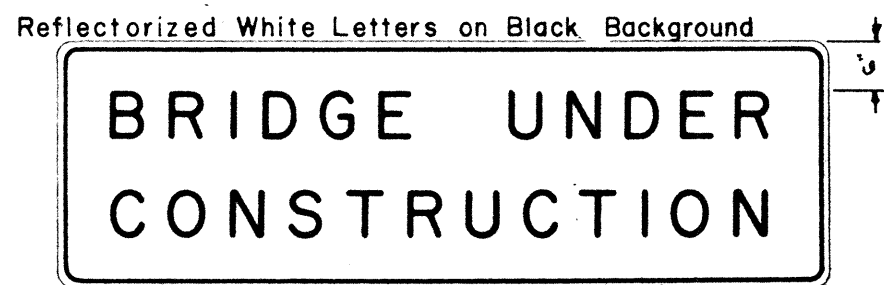
G20-2 60"x24"



G20-3 42"x18"



M5-7(L) 48"x18"



CW-1 96" x 30"

- NOTE:
- The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
 - All signs shall be reflectorized unless otherwise specified.
 - All signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise noted.
 - For W20 series signs, suffixes a,b,c and d are as follows a 1500 FT, b 1000 FT, c 500 FT and d AHEAD
 - (R) or (L) indicates right or left and shall be as shown on the plans.
 - Number in () indicates miles and shall be as shown on the plans.

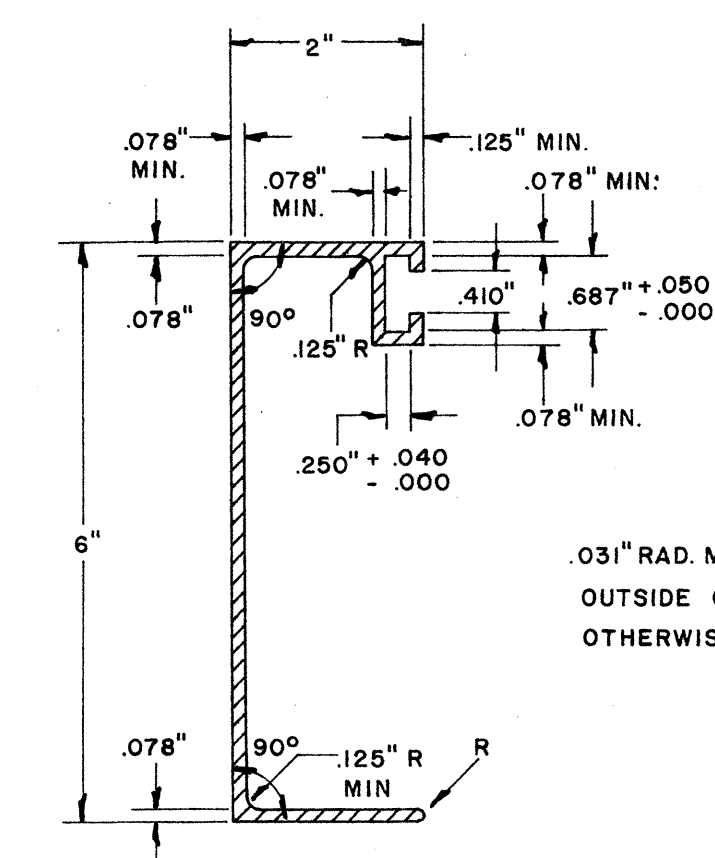
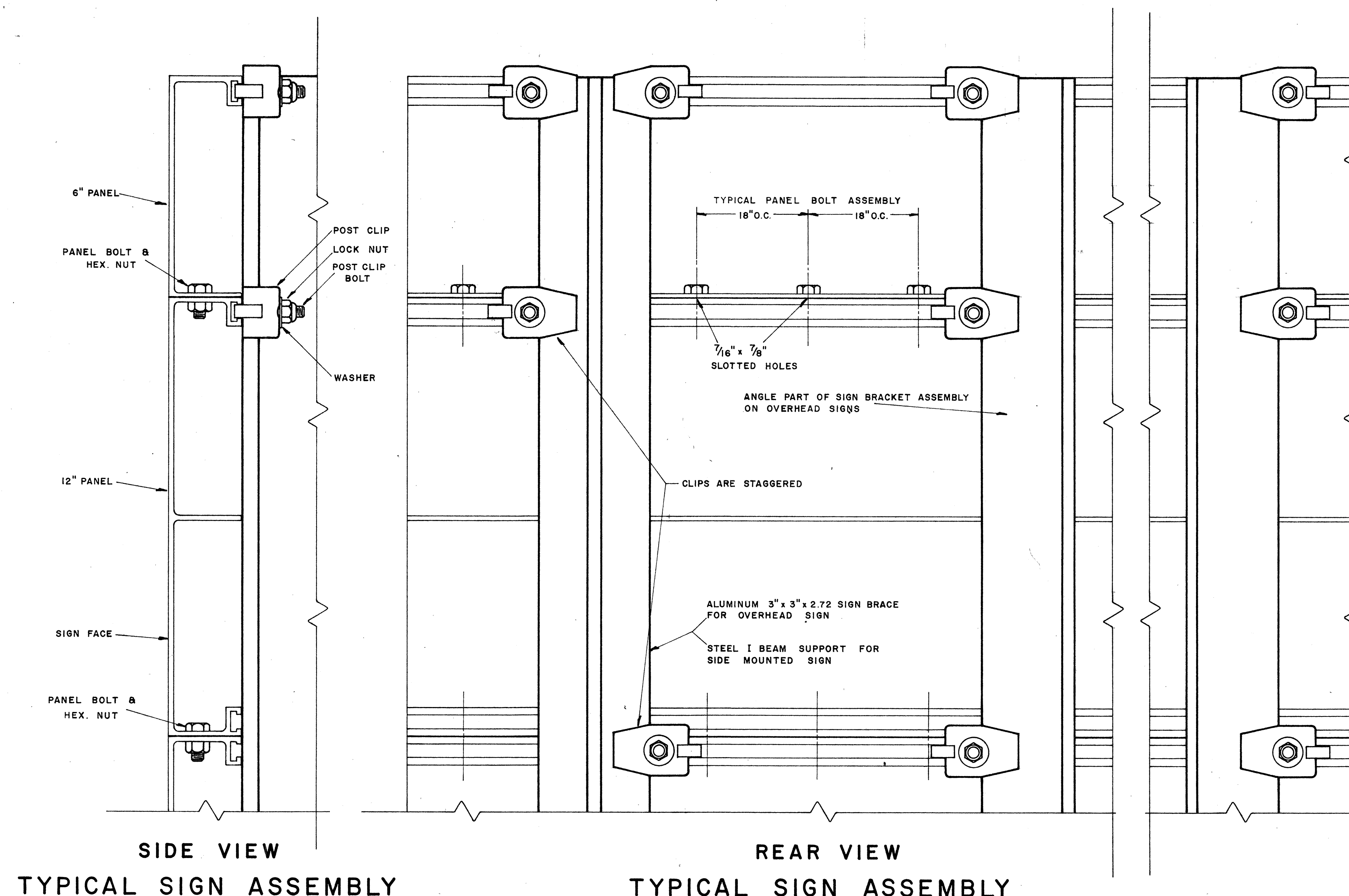
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
CONSTRUCTION SIGNS
NOT TO SCALE

SHEET No. OF SHEETS

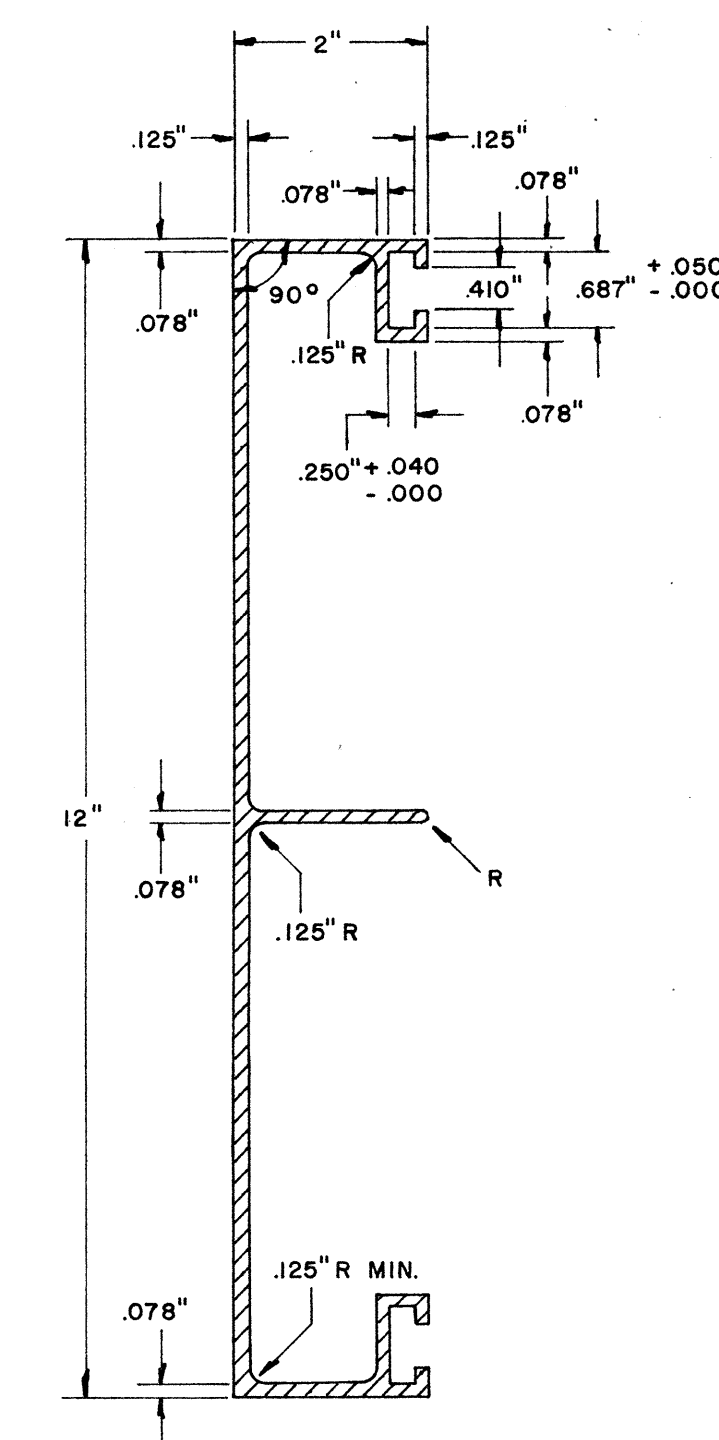
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	" "
No.	DESIGNED BY	" "
	QUANTITIES BY	" "
	CHECKED BY	" "

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6" SIGN PANEL

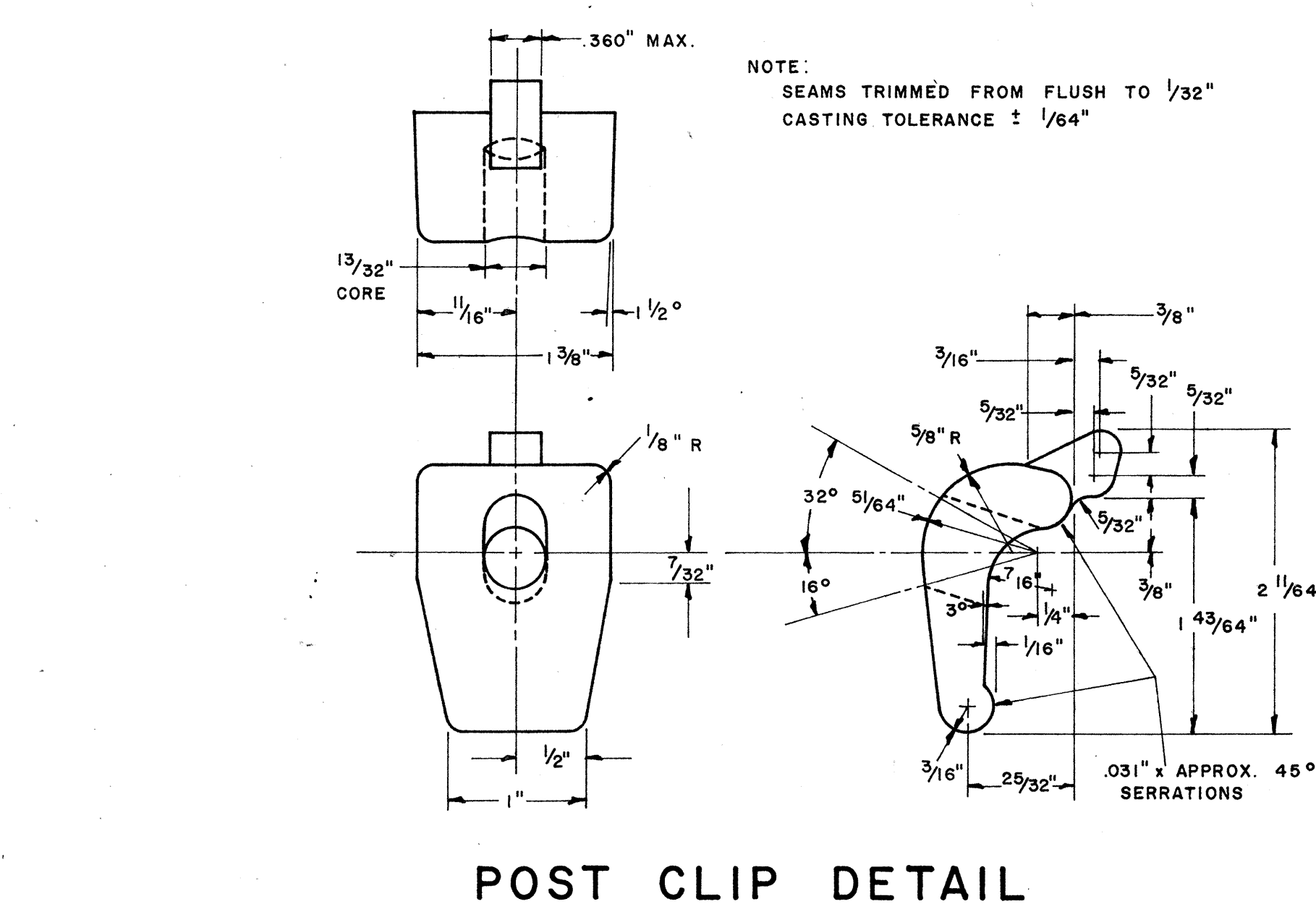
WT./ LINEAL FT. - 1.103 LBS. MIN.
ALLOY - 6061 - F(1)
MOMENT OF INERTIA - 0.487 MIN
MINIMUM SECTION MODULUS 0.341



12" SIGN PANEL

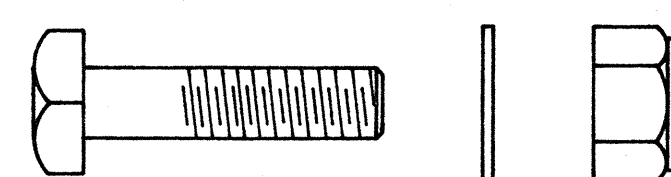
WT./LINEAL FT. -2.690 LBS. MIN.
ALLOY - 6061 - F(1)
MOMENT OF INERTIA 0.936 MIN.
MINIMUM SECTION MODULUS 0.605

SOLID EXTRUDED SIGN
PANEL DETAILS



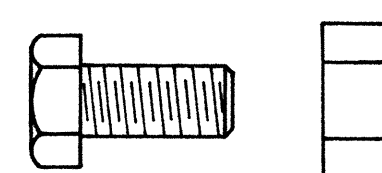
POST CLIP DETAIL

ALLOY 356 - T 6



POST CLIP BOLT ASSEMBLY

3/8" - 16 x 1 3/4" LONG SQ. HD. BOLT - ALLOY 2024-T4
3/8" - 16 LOCK NUT - ALLOY 2017-T4
25/32" ID x 3/4" OD x .09" WASHER - ALLOY ALCLAD 2024-T4



PANEL BOLT ASSEMBLY

3/8"-16 x 3/4" LONG HEX. HD. BOLT - ALLOY 2024 - T4
3/8"-16 HEX. NUT.- ALLOY 6061 -T6
FLAT WASHER - ALLOY ALCLAD 2024-T4

NOTE:
Extruded aluminum panels shall be used
for Destination and Expressway signs.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
SOLID ALUMINUM
EXTRUDED SIGN PANEL
AND
ACCESSORY DETAILS

SCALE :

SHEET No. OF SHEETS

A 34 B 34

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