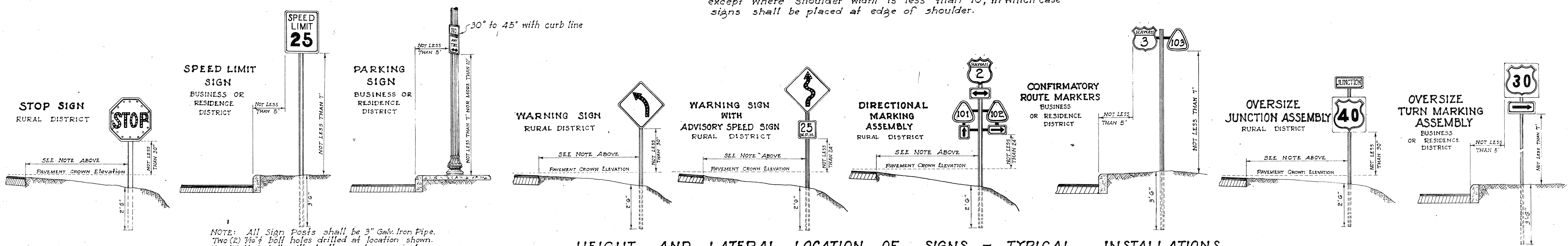
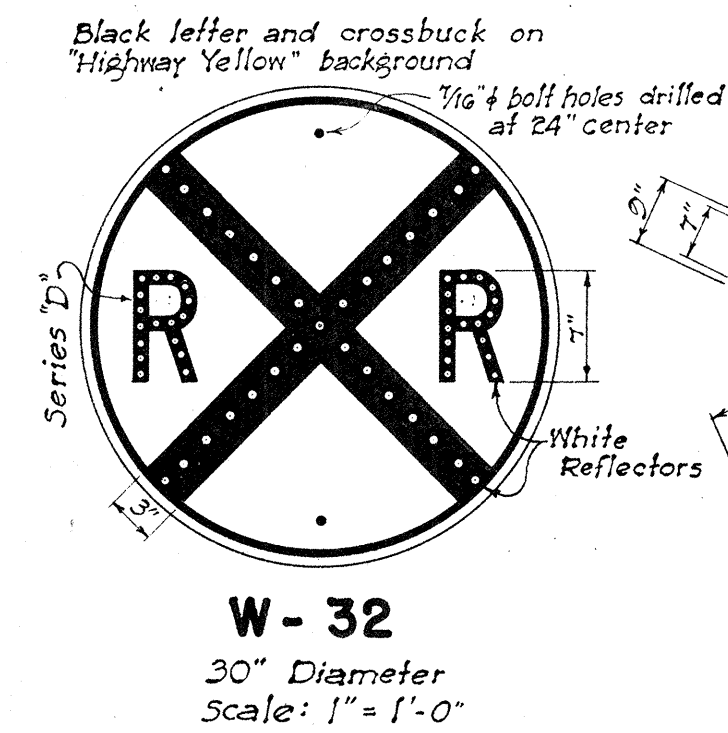


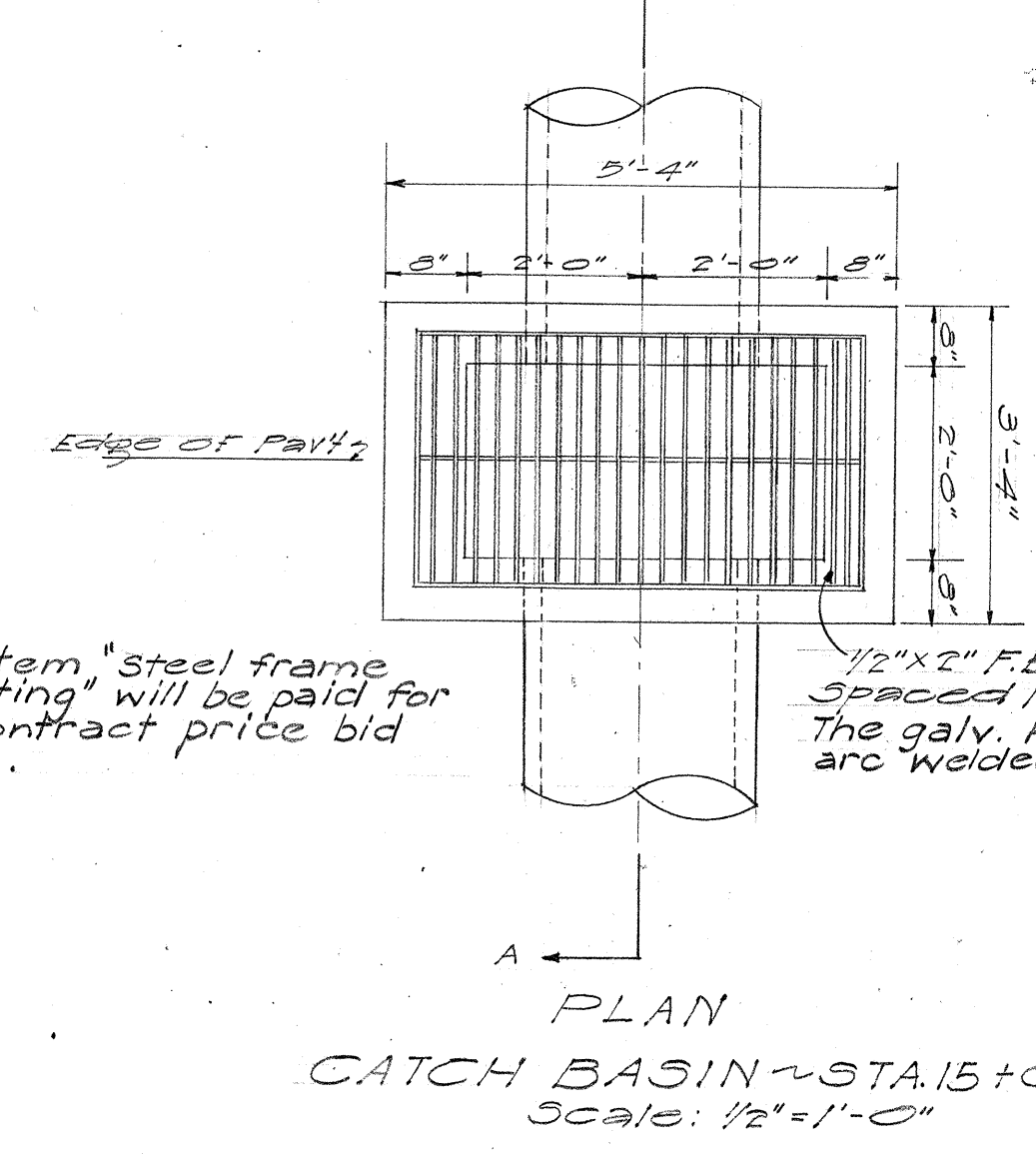
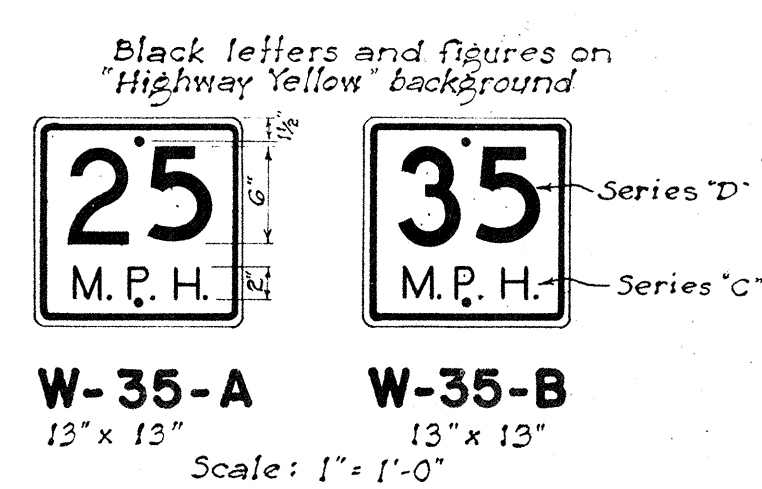
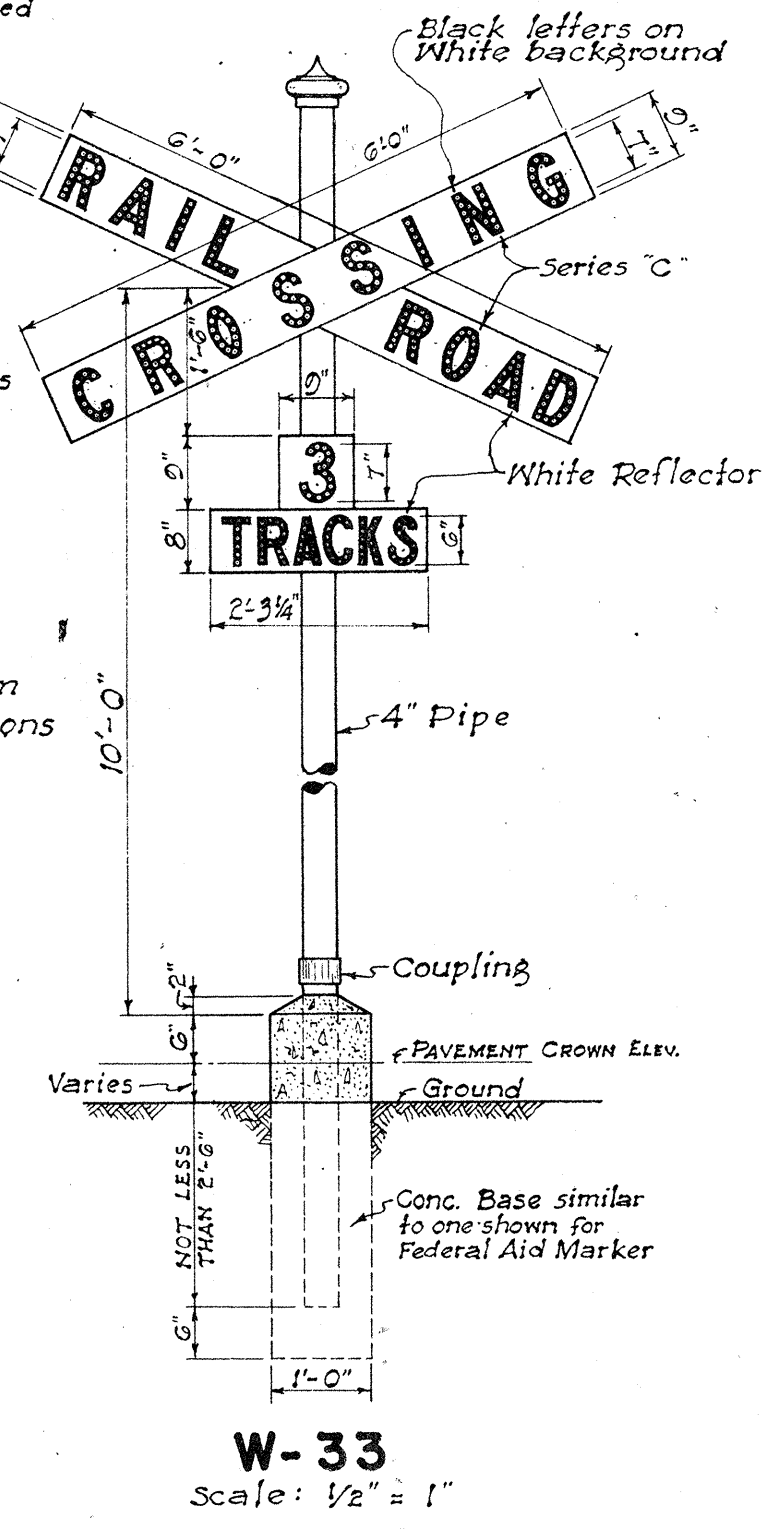
NOTE: All signs shall be placed 10' from edge of pavement except where shoulder width is less than 10', in which case signs shall be placed at edge of shoulder.



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

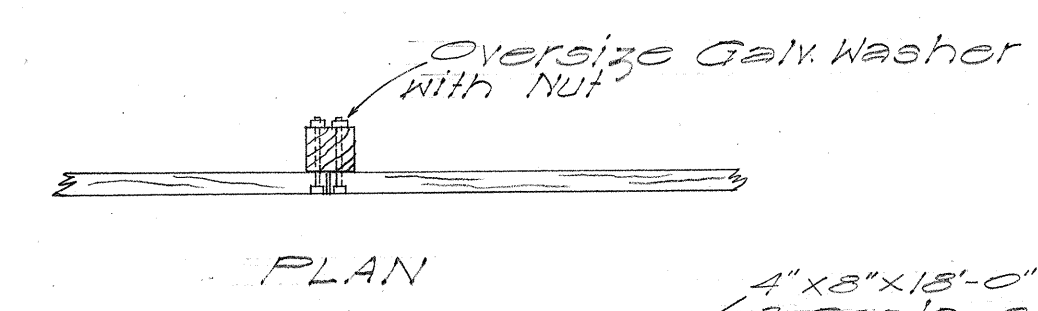
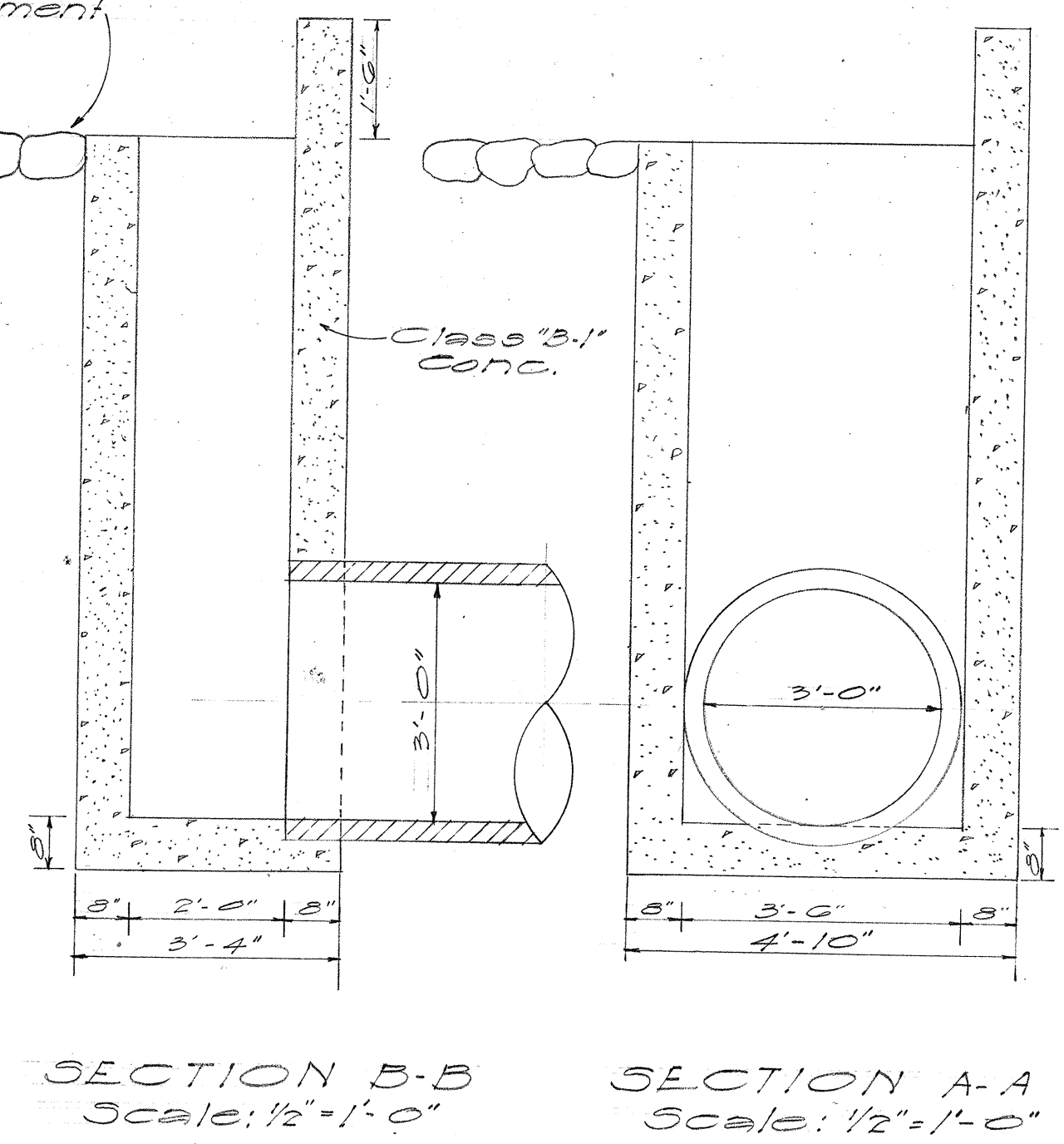
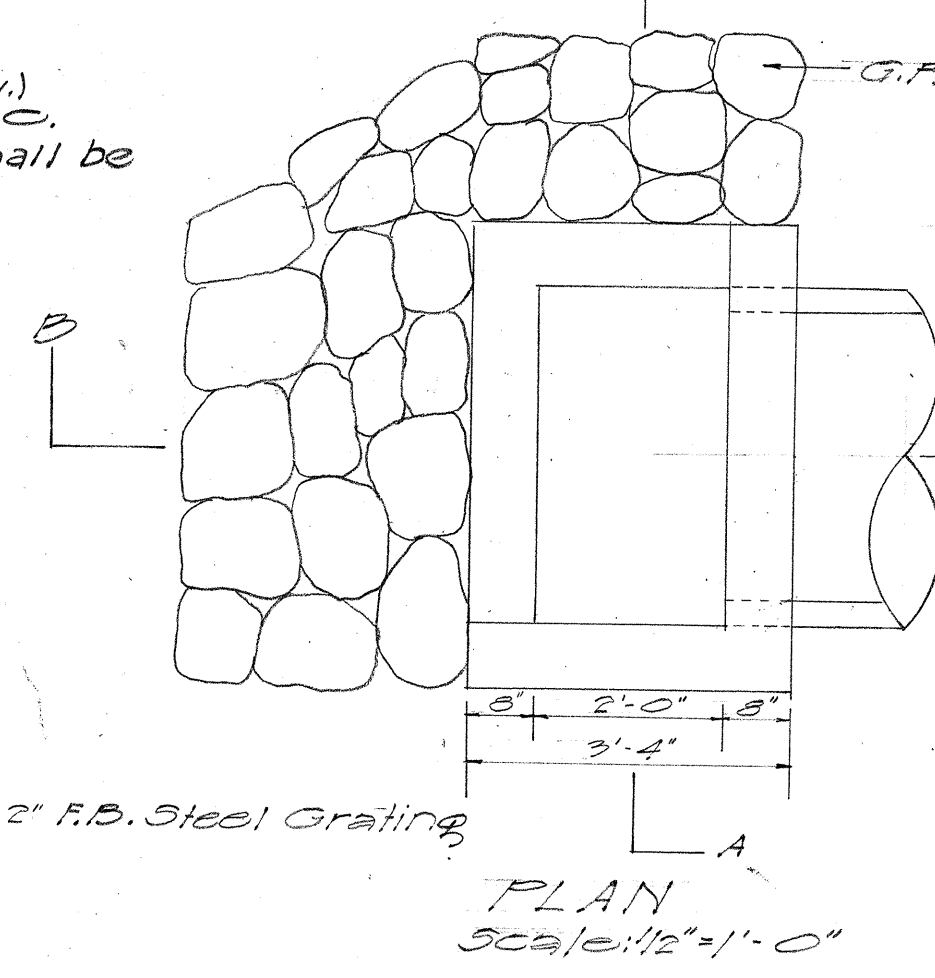
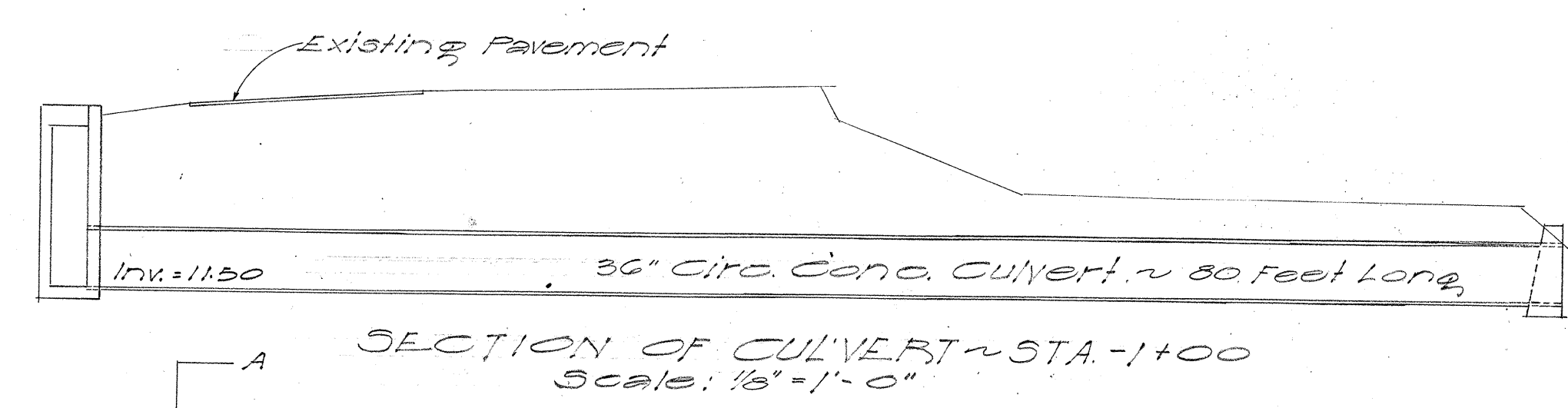


Note: This sign shall be placed from 300 to 500 feet from R.R. intersections in rural areas and a minimum distance of 100 feet from R.R. intersections in Residence or Business districts.



This item, "steel frame and grating" will be paid for at the contract price bid for each.

1/2" x 2" F.B. (galv.) spaced 1/2" O.C. The galv. F.B. shall be arc welded.



4" x 8" x 18'-0" S4S railing painted 3 coats of white paint. Contact surfaces between posts and rails and all butt joints shall be painted 3 coats before assembly.

Butt joints to be left open approx. 1/8" spaced every other post, except on sharp curves.

1/2" x 8" Galv. Carriage Bolts spaced as shown. Counter sunk on front face.

Notes: All bolt holes in posts shall be drilled before treatment with Wolman Salt. Posts shall be painted the same as called for in the railing.

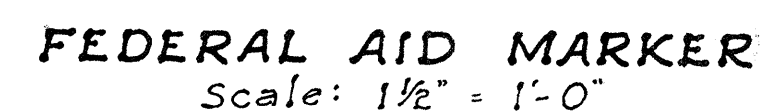
DESIGNED BY	DATE
TRACED BY	
QUANTITIES BY	
NOTE BOOK	
CHECKED BY	
NO.	

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

REGULATORY & WARNING SIGNS

SCALE AS NOTED May 31, 1949

APPROVED: *[Signature]*
Territorial Highway Engineer



PLAN

SECTION.

DETAIL OF BASE FOR TRAFFIC STANDARD
AND DISPATCHER PEDESTAL

END VIEW LONGITUDINAL SECTION

STRUTTING DIAGRAM & TABLE
FOR
CORRUGATED METAL PIPE CULVERT

SECTION "A-A"

PLAN OF COVER PLATE

PLAN

TYPICAL ROAD SECTION
SHOWING
TRAFFIC DETECTOR JUNCTION BOX AND DUCT

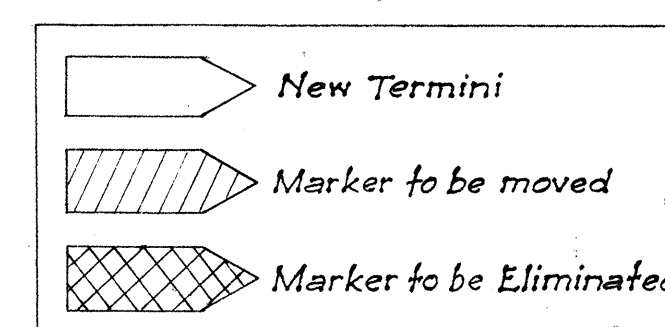
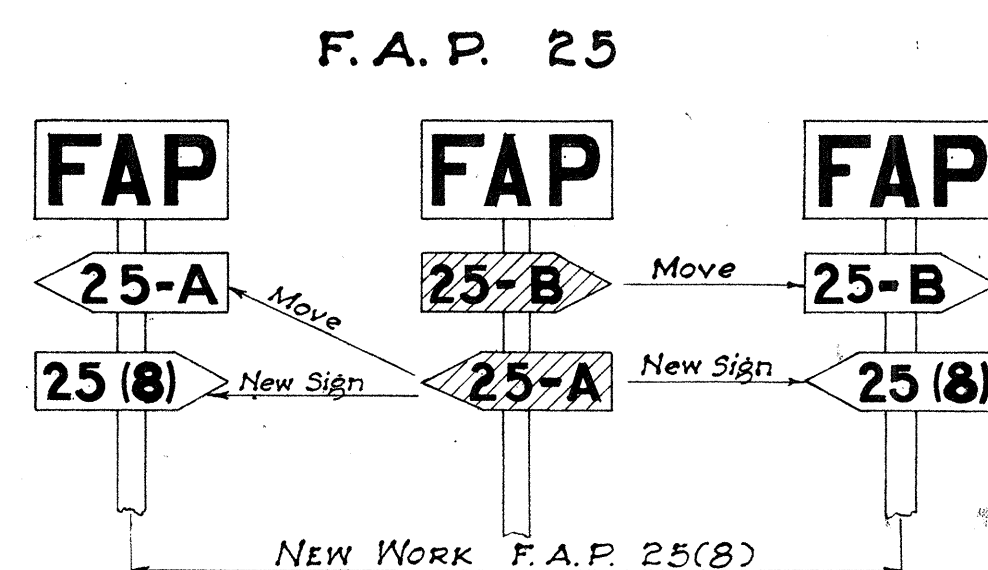
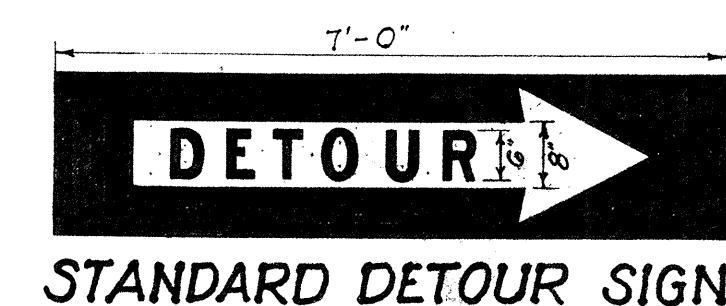
PLAN

SECTION A-A

DETAIL OF PULL BOX
Scale: 1" = 1'-0"

STANDARD C&C STREET
SURVEY MONUMENT

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



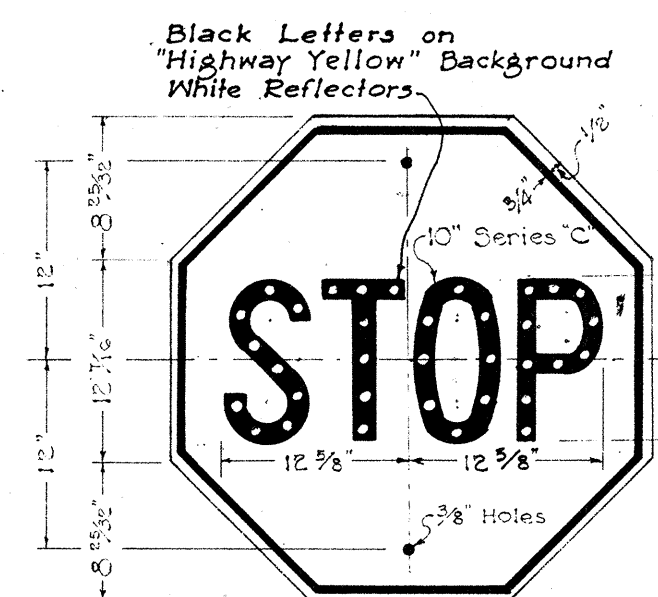
The same procedure would be followed on each successive improvement until all markers for letter designated sections are eventually eliminated.

METHOD OF MARKING F.A. PROJECTS AT OVERLAPS

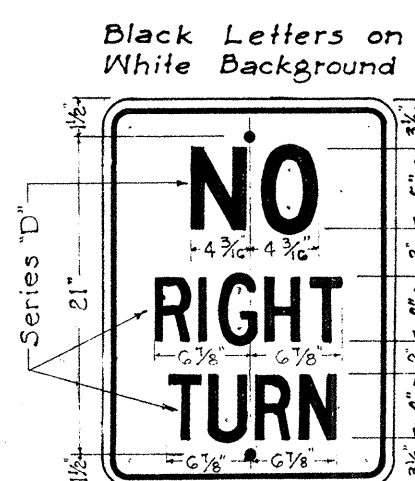
STANDARD DETAILS

APPROVED: Wm. J. Zelt
Territorial Highway Engineer

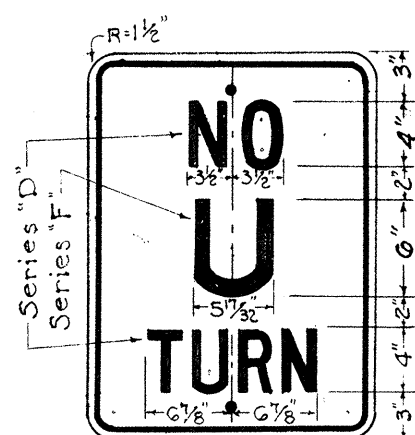
SHEET No OF SHEETS



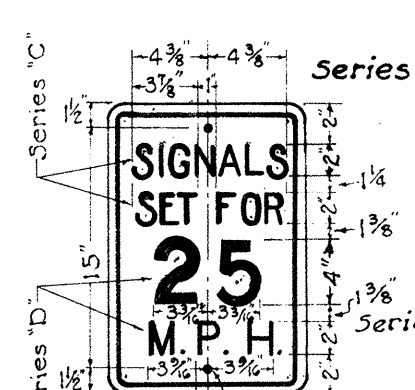
R-1



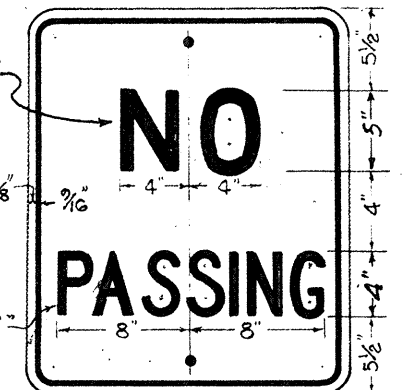
R-6
18" x 24"



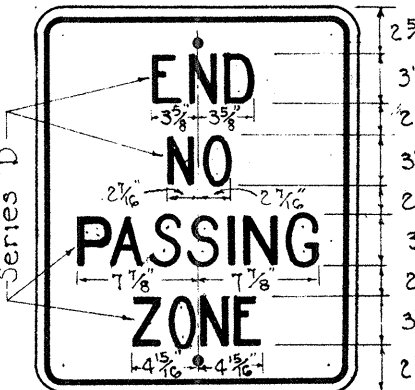
R-8
18" x 24"



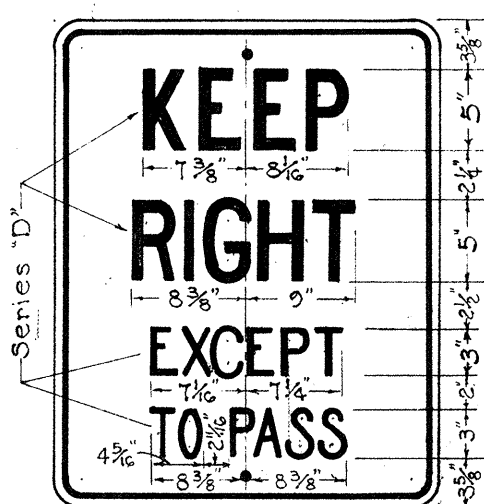
R-10
12" x 18"



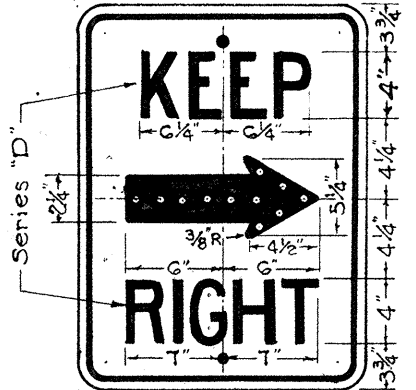
R-11
20" x 24"



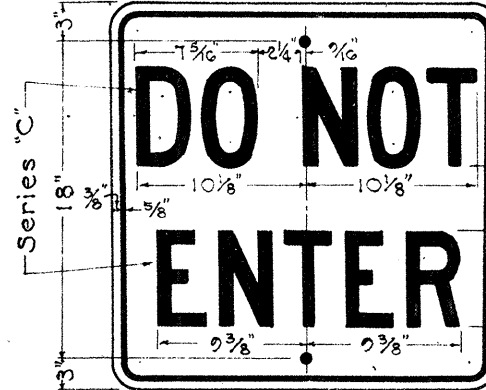
R-12
20" x 24"



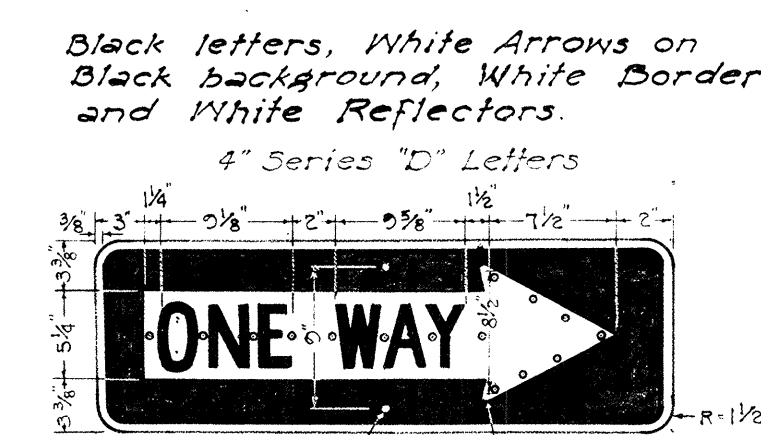
R-13
24" x 30"



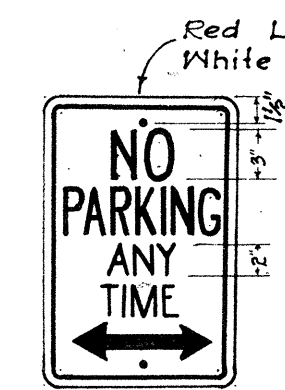
R-14
18" x 24"



R-15
24" x 24"



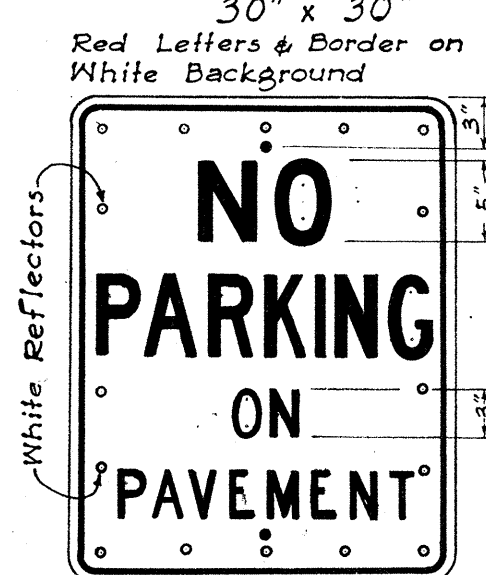
R-16-R
*R-16-L
36" x 12"



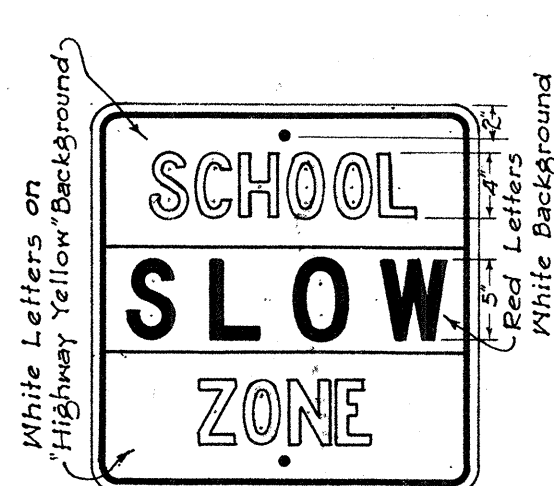
R-18
12" x 18"



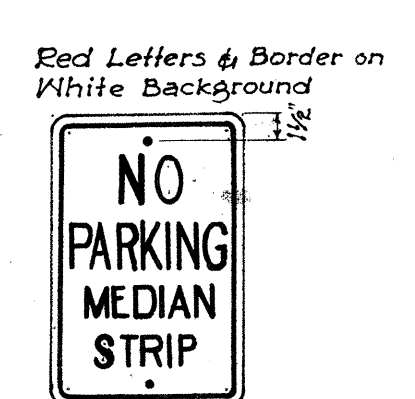
R-26
12" x 18"



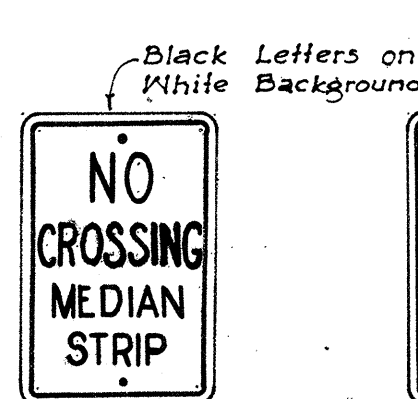
R-29
24" x 30"



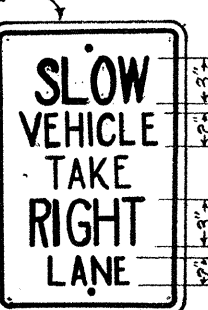
R-41-S
24" x 24"



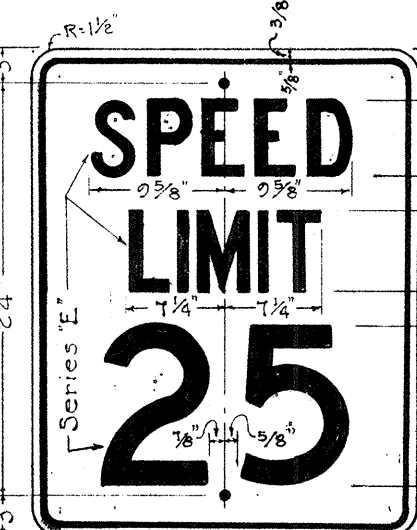
R-42-S
12" x 18"



R-43-S
12" x 18"



R-44-S
12" x 18"



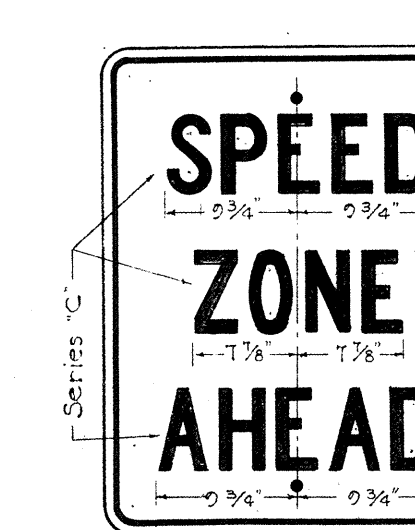
R-102-A
24" x 30"



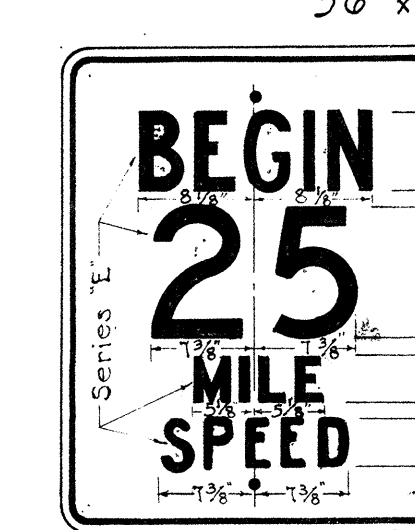
R-102-B
24" x 30"



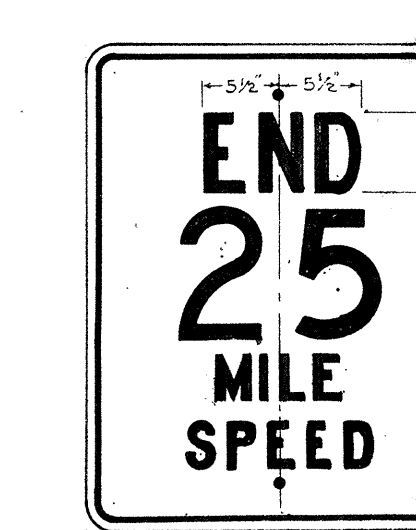
R-102-C
24" x 30"



R-104
24" x 30"



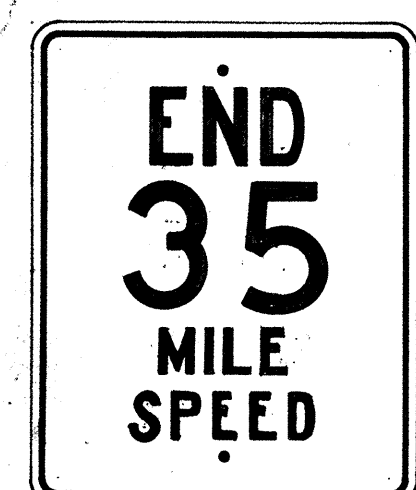
R-105-A
24" x 30"



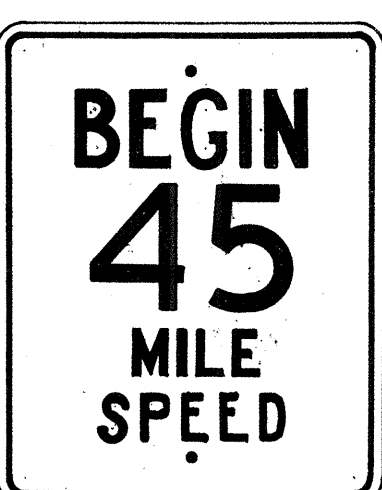
R-105-B
24" x 30"



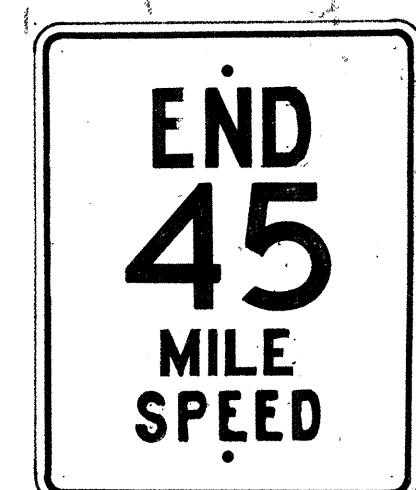
R-105-C
24" x 30"



R-105-D
24" x 30"



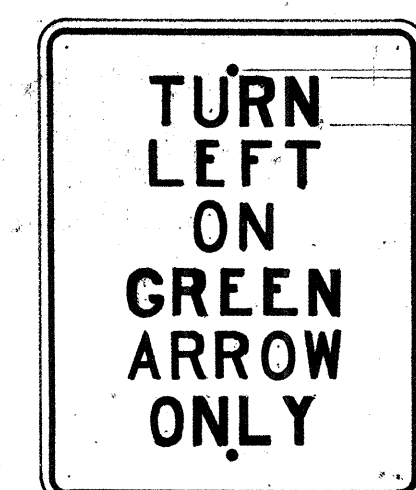
R-105-E
24" x 30"



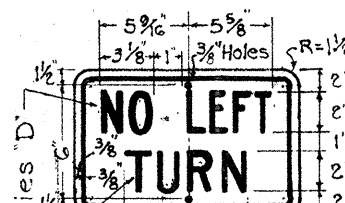
R-105-F
24" x 30"



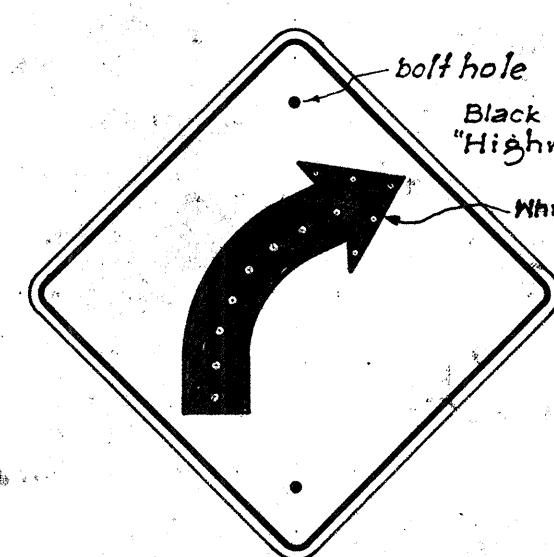
R-106
24" x 30"



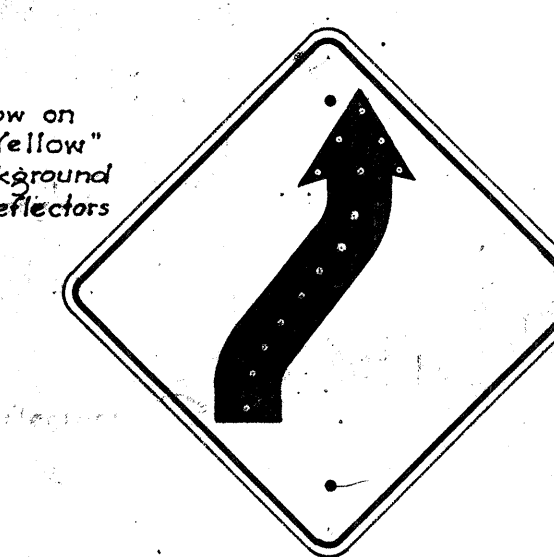
R-107-A
24" x 30"



R-107
14" x 9"



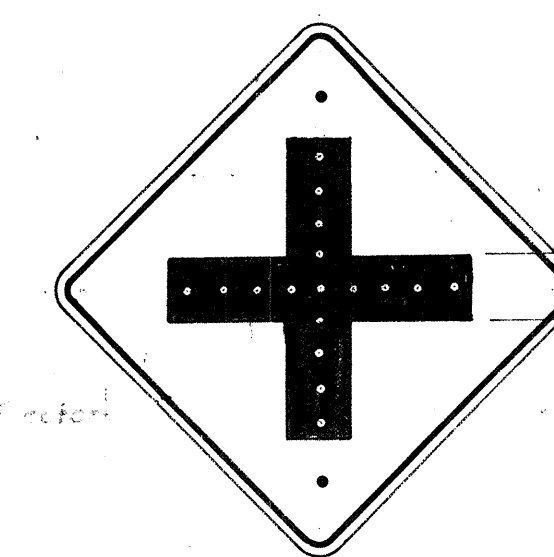
W-2-R
*W-2-L
24" x 24"



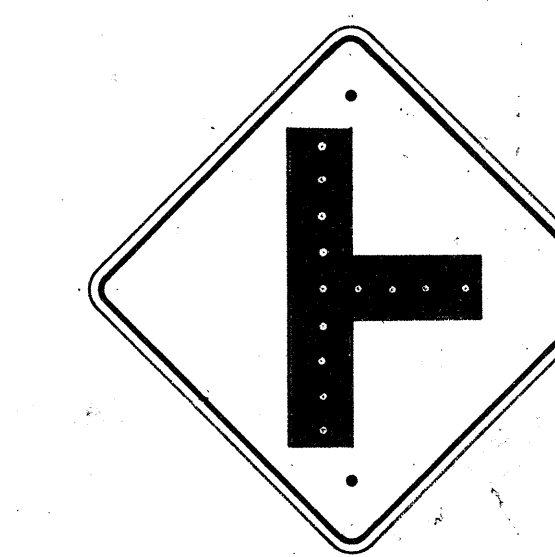
W-4-R
*W-4-L
24" x 24"



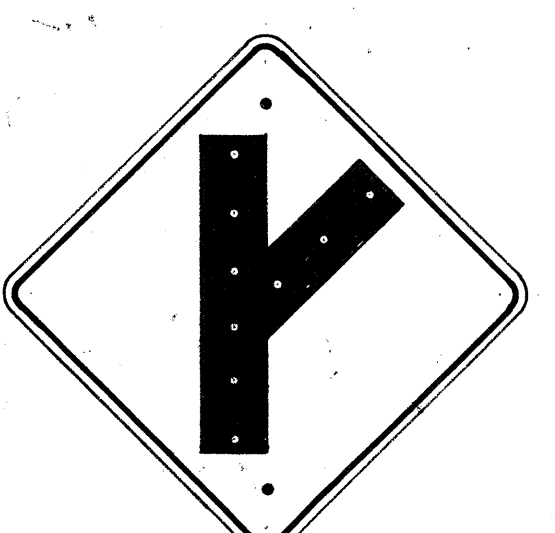
W-5-R
*W-5-L
24" x 24"



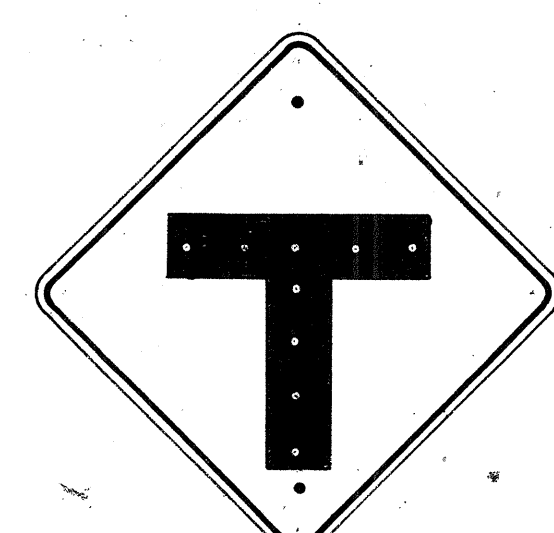
W-6
24" x 24"



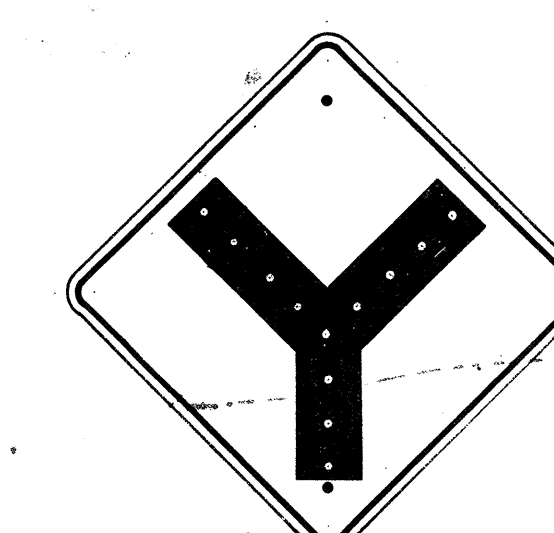
W-7
24" x 24"



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



W-9
24" x 24"



W-10
24" x 24"



W-13
24" x 24"



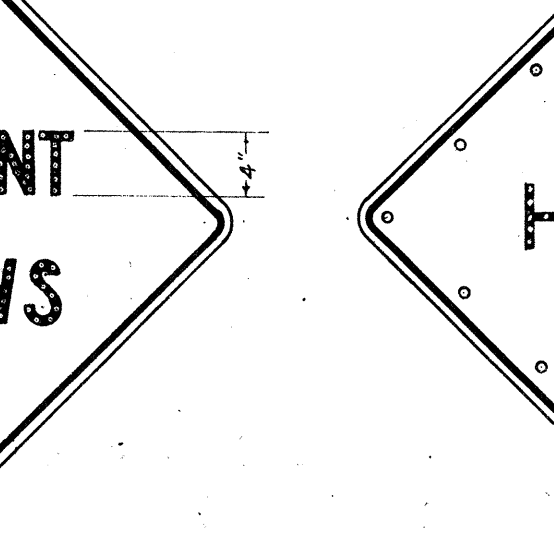
W-14
24" x 24"



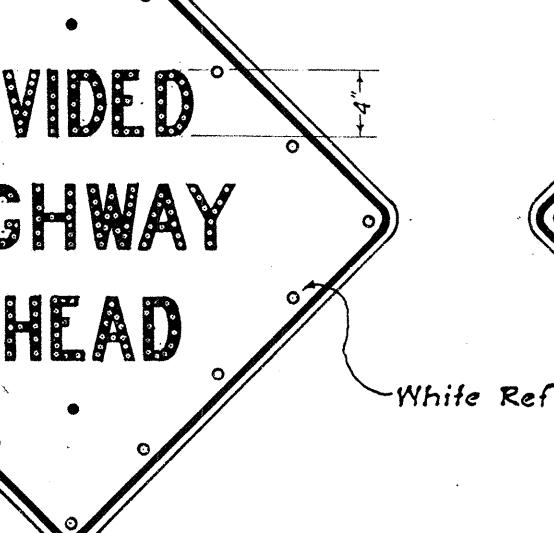
W-14-A
24" x 24"



W-19
30" x 30"



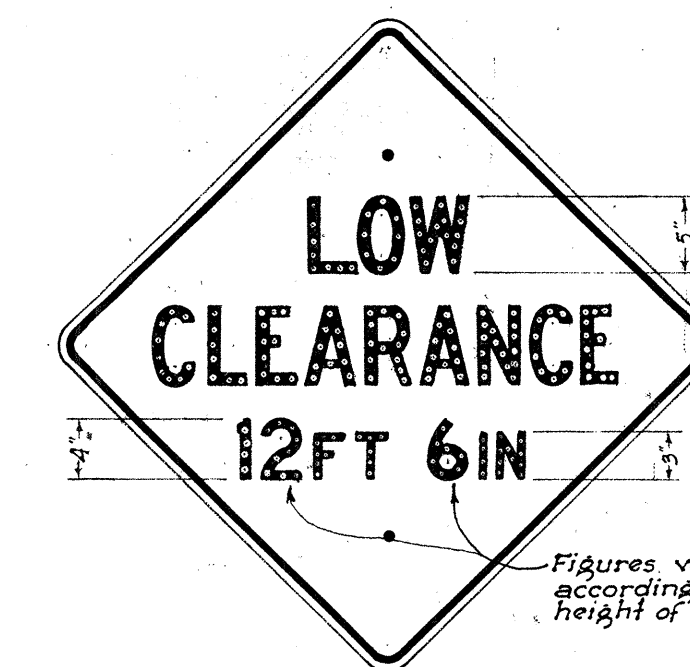
W-20
30" x 30"



W-21
30" x 30"



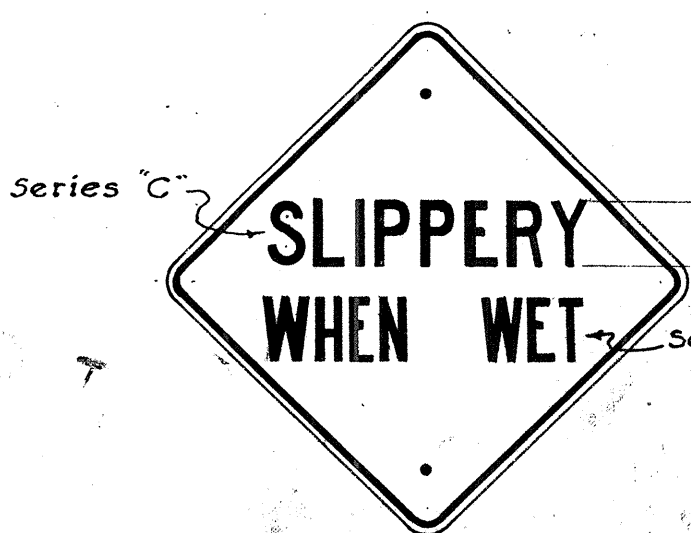
W-22
24" x 24"



W-24
30" x 30"



W-25
24" x 24"



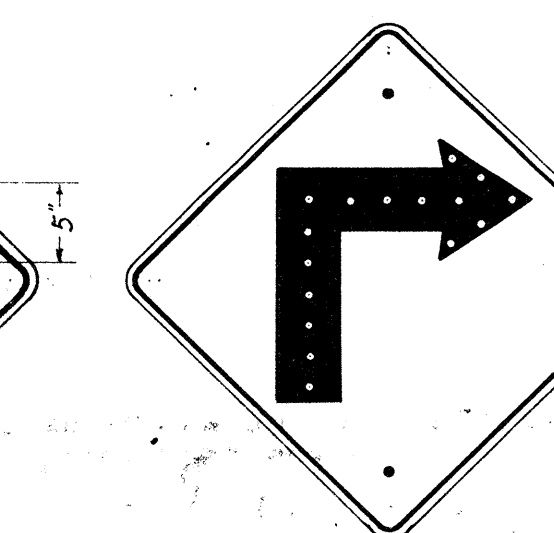
W-29
24" x 24"



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.

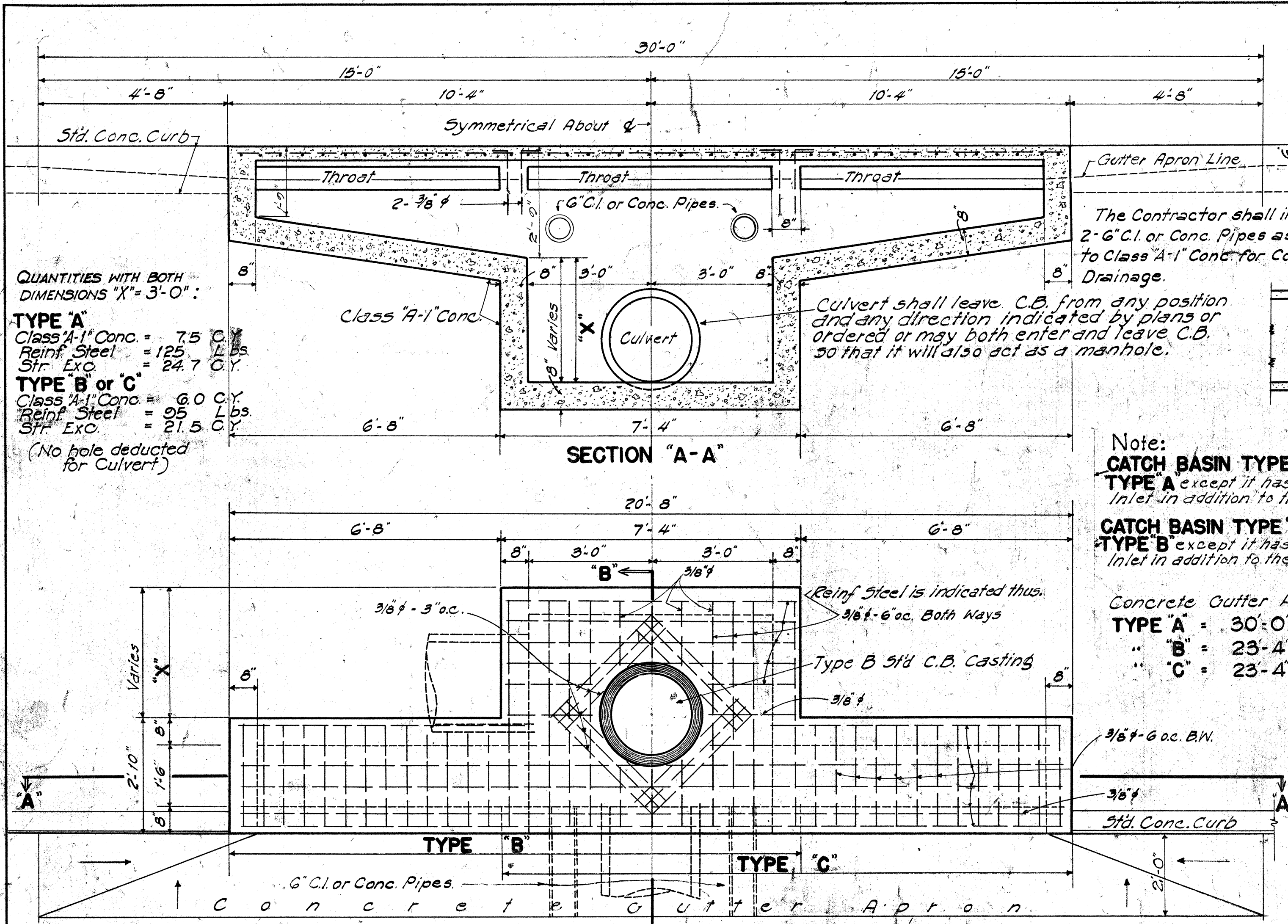
Note: All Regulatory (R) signs shall have black letters on a white background except where noted. All Warning (W) signs shall have black letters or figures on a "Highway Yellow" background. *Signs shall be similar but opposite in direction. See Specifications for Materials and Finish.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
REGULATORY & WARNING SIGNS
Scale: 1" = 1'
APPROVED: *[Signature]* May 31, 1949
TERRITORIAL HIGHWAY ENGINEER

SHEET NO. OF SHEETS

5564.6

DATE: _____
DESIGNED BY: _____
DRAWN BY: T. Tokunaga
QUANTITIES BY: _____
CHECKED BY: _____
NOTE BOOK: _____
ORIGINAL: _____



QUANTITIES WITH BOTH DIMENSIONS "X" = 3'-0" :

TYPE 'A'
 Class 'A-1' Conc. = 7.5 C.Y.
 Reinf. Steel = 125 Lbs.
 Str. Exc. = 24.7 C.Y.

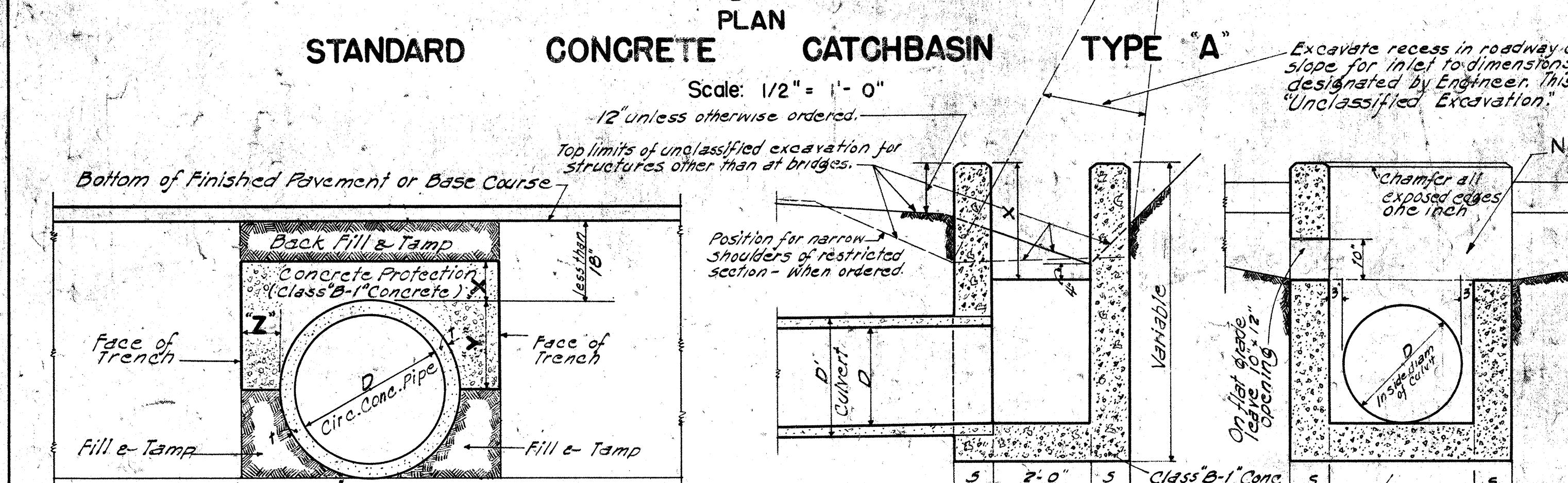
TYPE 'B' or 'C'
 Class 'A-1' Conc. = 6.0 C.Y.
 Reinf. Steel = 95 Lbs.
 Str. Exc. = 21.5 C.Y.

(No hole deducted for Culvert)

Note:
CATCH BASIN TYPE 'B' similar to **TYPE 'A'** except it has only Left Side Inlet in addition to the Main Box.

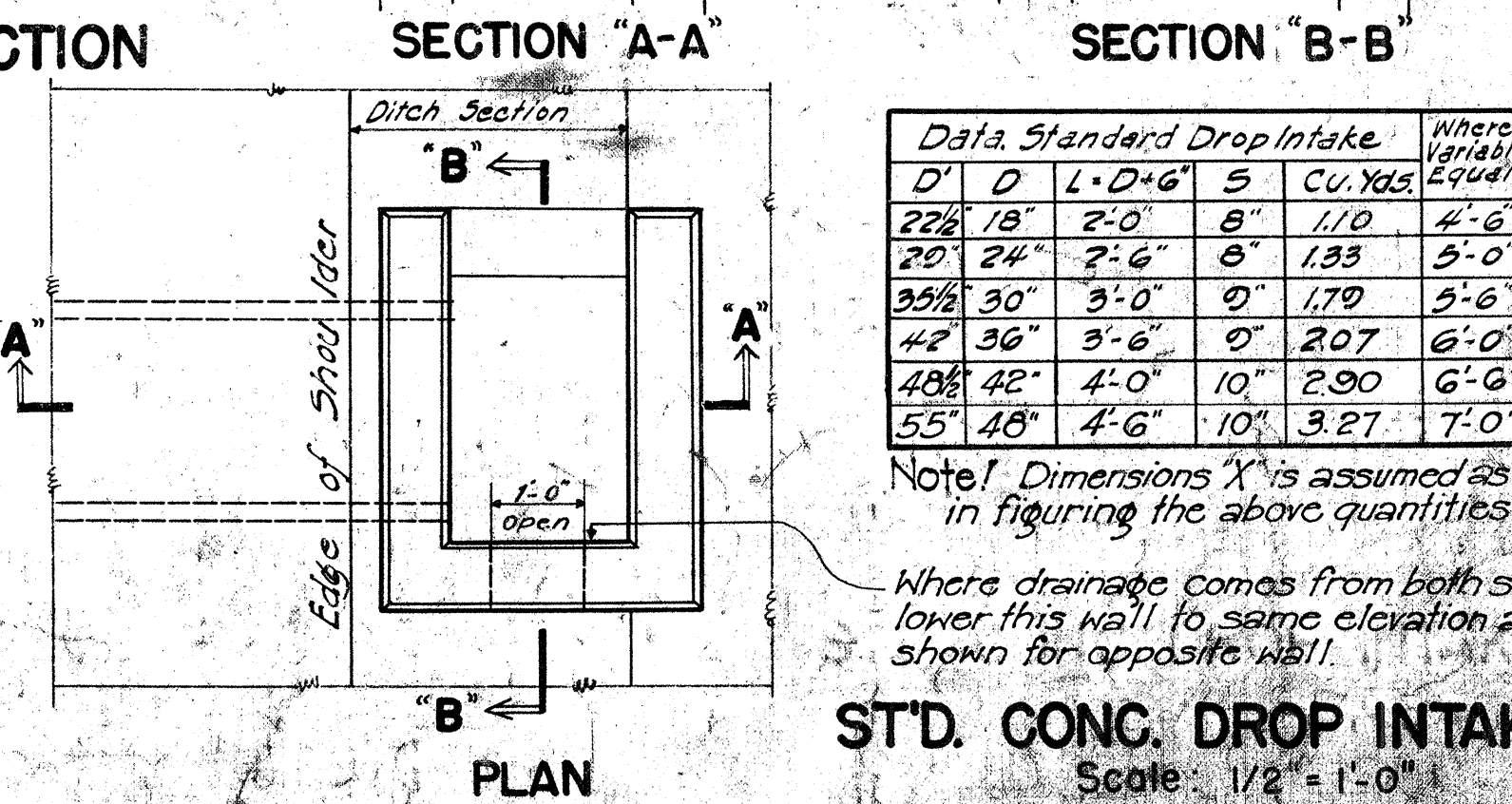
CATCH BASIN TYPE 'C' similar to **TYPE 'B'** except it has only Right Side Inlet in addition to the Main Box.

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

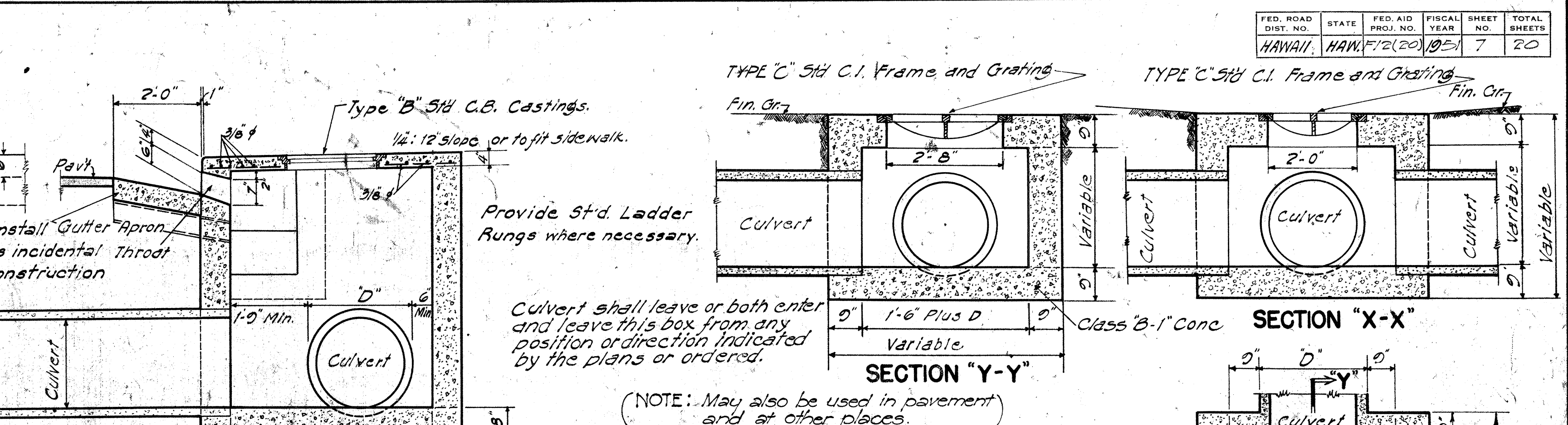


TYP. SECT. OF CULVERT WITH CONG. PROTECTION
 (To be used when cover is less than 18")

DATA: CONCRETE PROTECTION OVER CULVERTS		
X	Y	Z
6" for 18" D		Z must be from pipe to face of trench Minimum = X
7" " 24" D		
8" " 30" D		
9" " 36" D		
10" " 42" D		
11" " 48" D		Maximum pay quantity will be Z = 12"
12" " 54" D		



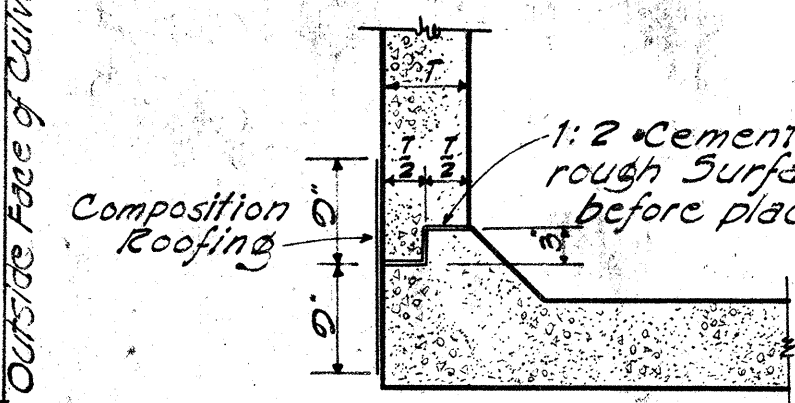
ST'D. CONG. DROP INTAKE
 Scale: 1/2" = 1'-0"



CONG. DROP INTAKE IN MEDIAL STRIPS
 Scale: 1/2" = 1'-0"

MARK	SIZE	D	J	J ₂	E
300	3/8"	2	2 1/2	1 1/2	6
400	1/2"	2 1/2	3 1/2	1 3/4	8
500	5/8"	3 1/2	4 1/2	2 1/4	10
600	3/4"	4 1/2	5 1/2	3 1/4	12
700	7/8"	5 1/2	6 1/2	4 1/4	14
800	1"	6 1/2	7 1/2	5 1/4	16
900	1 1/8"	7 1/2	8 1/2	6 1/4	18
1000	1 1/4"	8 1/2	9 1/2	7 1/4	20

HOOK AND BEND DETAIL



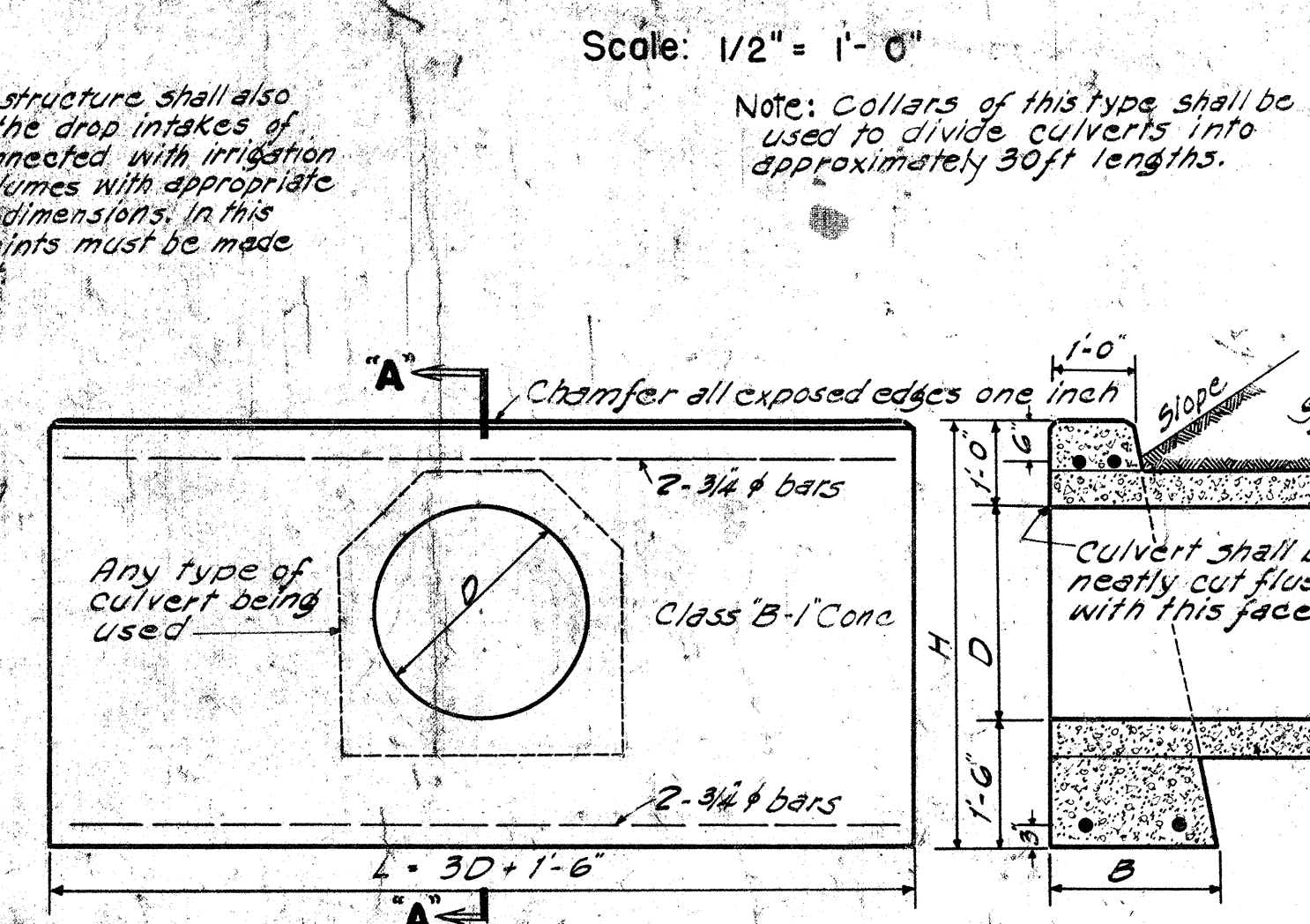
CONSTR. JOINT DETAILS

METHOD OF APPLYING CONSTR. JOINT WATERPROOFING

- (1) Map surface either side of joint as required with asphalt 50-100 penetration (A.S.T.M. Design D-5-25) applied at 200°F.
- (2) Apply one layer of 55-lb composition roofing to hot asphalt.
- (3) Map surface of composition roofing and 3" beyond all around with thick coat of asphalt as specified under (1).

The above work is incidental to concrete and will not be paid for separately.

CONG. COLLAR FOR CONG. BOX CULVERT

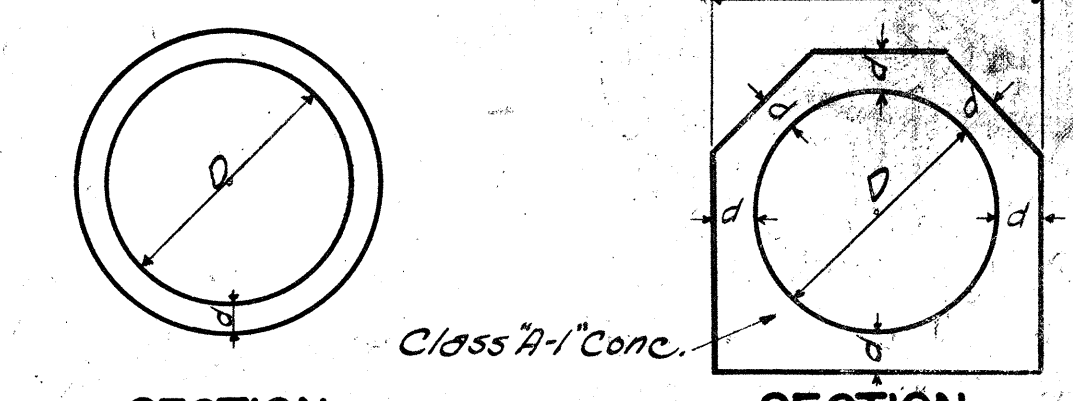


FRONT ELEVATION

SECTION "A-A"

Cast-in-Place	Data: Standard Concrete Headwall				Steel One Headwall			
Cu. Yds.	D	B	L	H	Conc. one H.W.	No. of Bars	Size	Length
0.02 Cu. Yds.	18"	1'-6"	6'-0"	4'-0"	100 Cu. Yds.	4	3/4"	5'-6"
1.25 "	24"	1'-6"	7'-6"	4'-6"	138 "	4	"	7'-0"
1.92 "	30"	2'-0"	9'-0"	5'-0"	217 "	4	"	8'-6"
2.43 "	36"	2'-0"	10'-6"	5'-6"	274 "	4	"	10'-0"

STANDARD CONCRETE HEADWALL
 Scale: 1/2" = 1'-0"



CONG. PIPE CULVERT

Data: Cast-in-Place Conc. Culvert			
D	d	W	Culvert per ft
18"	4"	2'-2"	0.11
24"	4 1/2"	2'-5"	0.14
30"	5"	3'-4"	0.19
36"	5 1/2"	3'-11"	0.26

Note: Thickness of reinforcing and concrete used are to conform with the approved design as provided by the Specifications.

CAST-IN-PLACE CONG. CULVERT

DATE: 1-1-45
 DRAWN BY: S. L. Smith
 CHECKED BY: S. L. Smith
 NOTE BOOK: No. 1