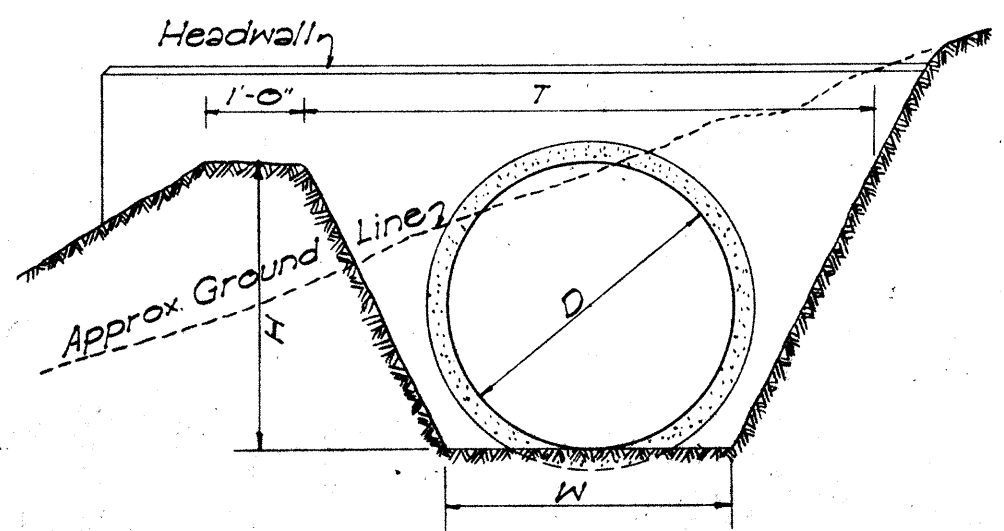


DATA FOR OUTLET DITCH

D	W	H	T=H+H
18"	24"	2'-0"	4'-0"
24"	30"	2'-0"	4'-6"
30"	30"	2'-6"	5'-0"
36"	36"	3'-0"	6'-0"

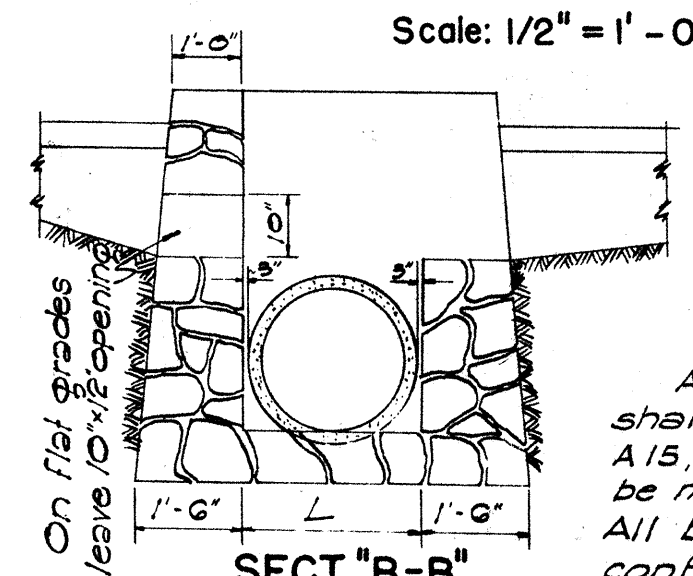
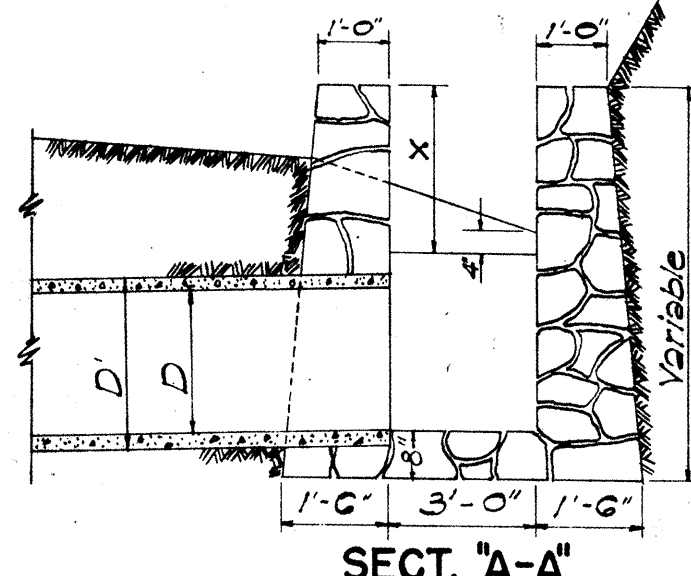
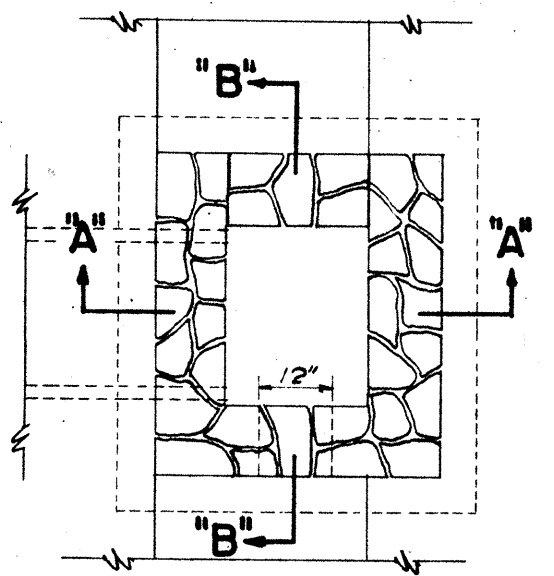


DETAIL OF OUTLET DITCH
Scale: 1/2" = 1'-0"

DATA FOR MASONRY DROP INTAKE

D	D	L=D+G	Cu. Yds.	Where Variables Equal
23"	18"	2'-5"	3.02	4'-6"
30"	24"	3'-0"	3.61	5'-0"
37"	30"	3'-7"	4.21	5'-6"
44"	36"	4'-2"	4.85	6'-0"

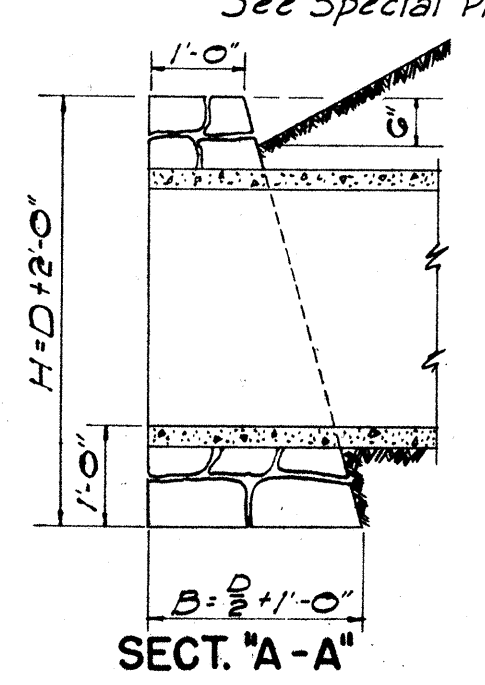
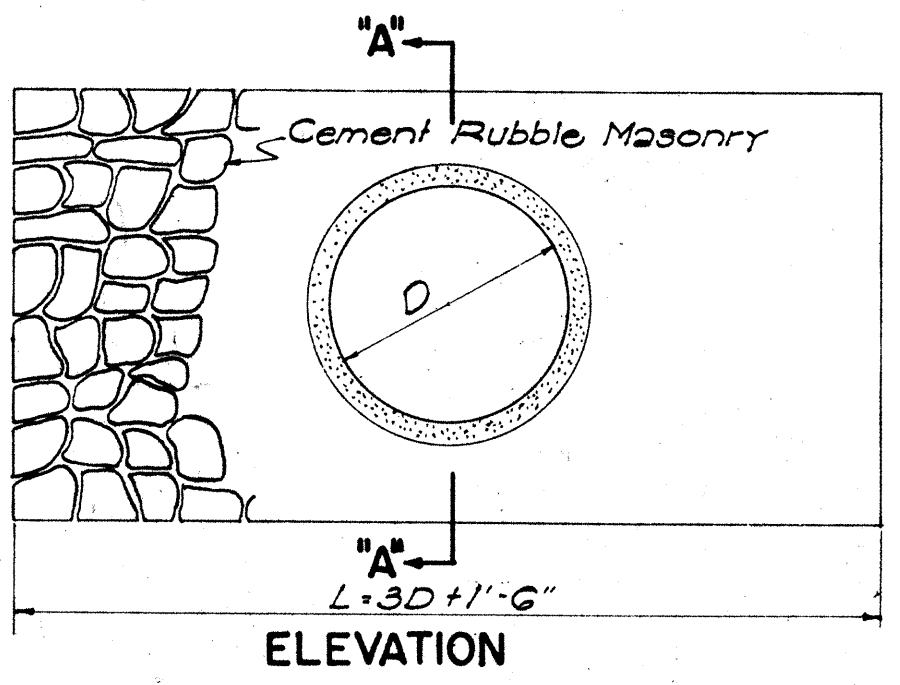
NOTE:
Dimension "X" is assumed as 2'-4"
in figuring the above quantities.



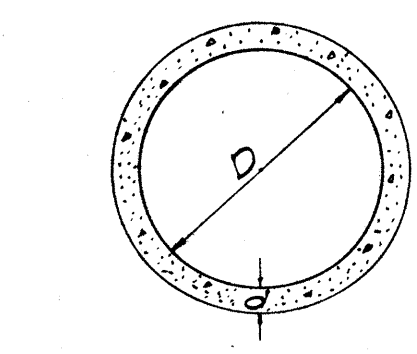
DETAIL OF MASONRY DROP INTAKE
Scale: 3/8" = 1'-0"

DATA - MASONRY HEADWALL

D	H	B	L	Cast-in-Place Conc. Culvert Cu. Yds.	Conc. Pipe Culvert Cu. Yds.	Corrugated Pipe Culvert Cu. Yds.
18"	3'-6"	1'-0"	6'-0"	0.85	0.05	0.03
24"	4'-0"	2'-0"	7'-6"	1.28	1.45	1.41
30"	4'-6"	2'-3"	9'-0"	1.83	2.00	2.00
36"	5'-0"	2'-6"	10'-6"	2.40	2.84	2.72

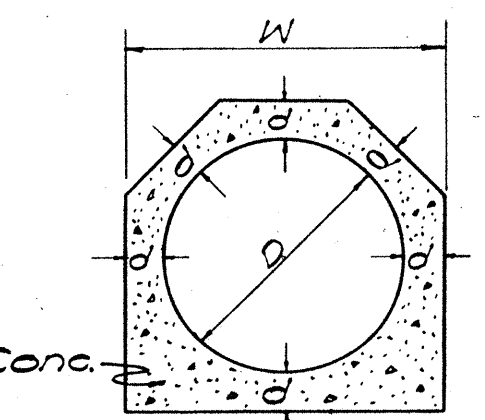


DETAIL OF MASONRY HEADWALL
Scale: 1/2" = 1'-0"



SECTION
CONC. PIPE CULVERT

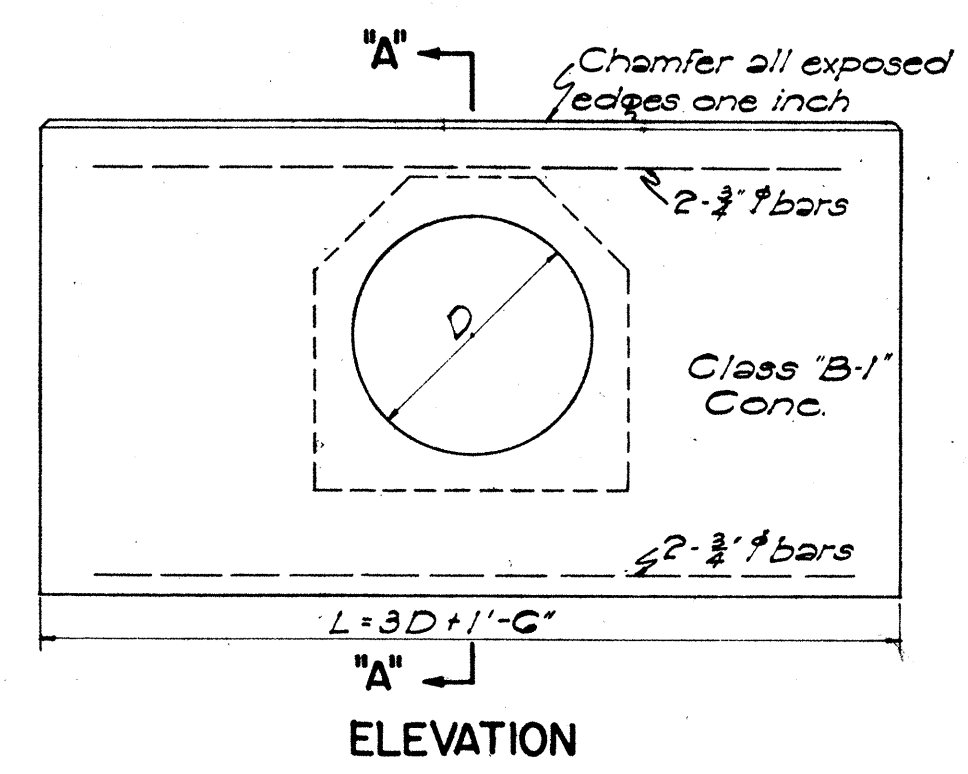
NOTE:
Thickness "d", reinforcing, and
Concrete used, are to conform
with the approved design as
provided by the Specifications.



CAST-IN-PLACE
CONC. CULVERT

DATA - CAST-IN-PLACE CONC. CULVERT

D	d	W	Cu. Yds. per Ft.
18"	4"	2'-2"	0.11
24"	4 1/2"	2'-9"	0.14
30"	5"	3'-4"	0.19
36"	5 1/2"	3'-11"	0.26

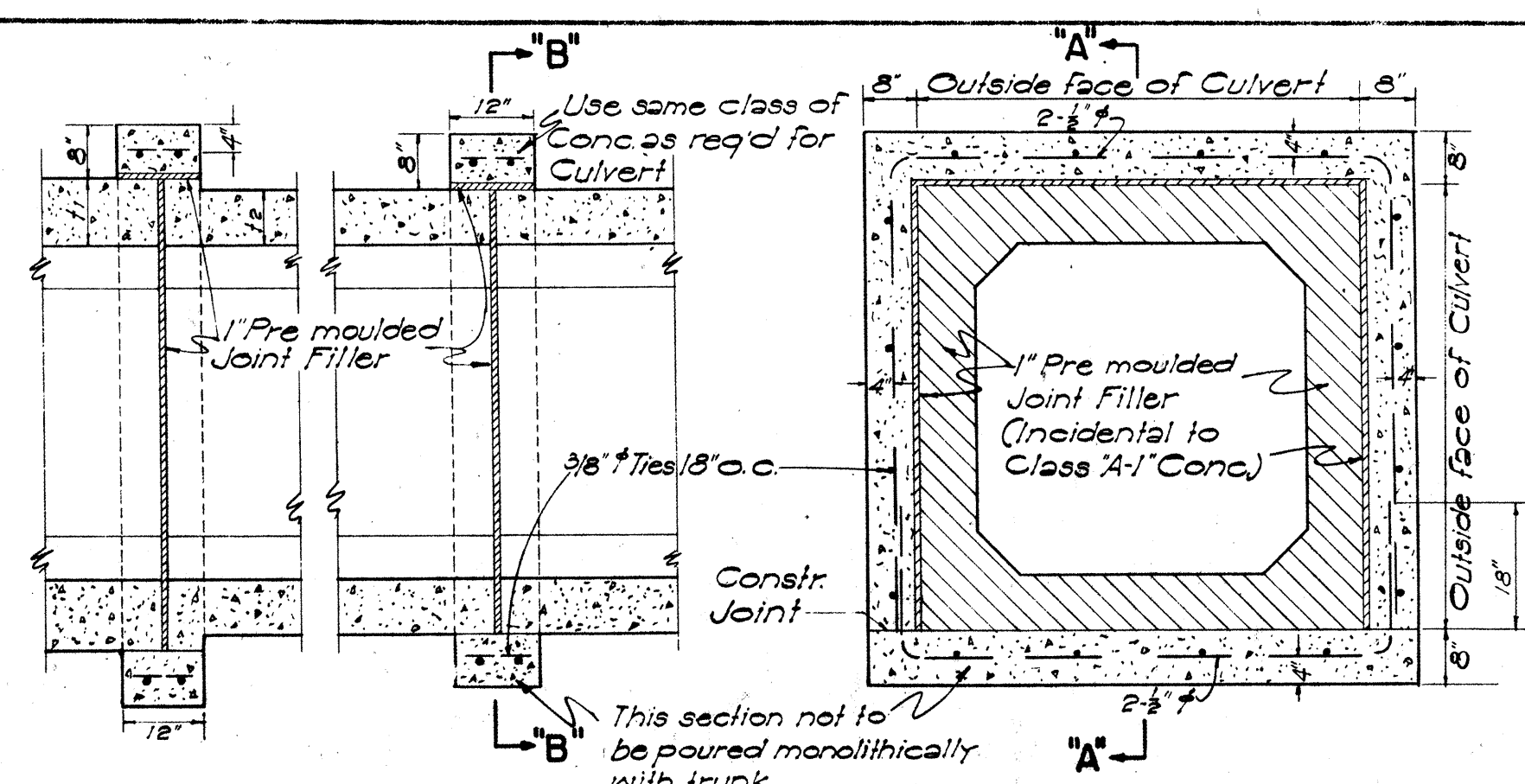


ELEVATION
SECTION "A-A"

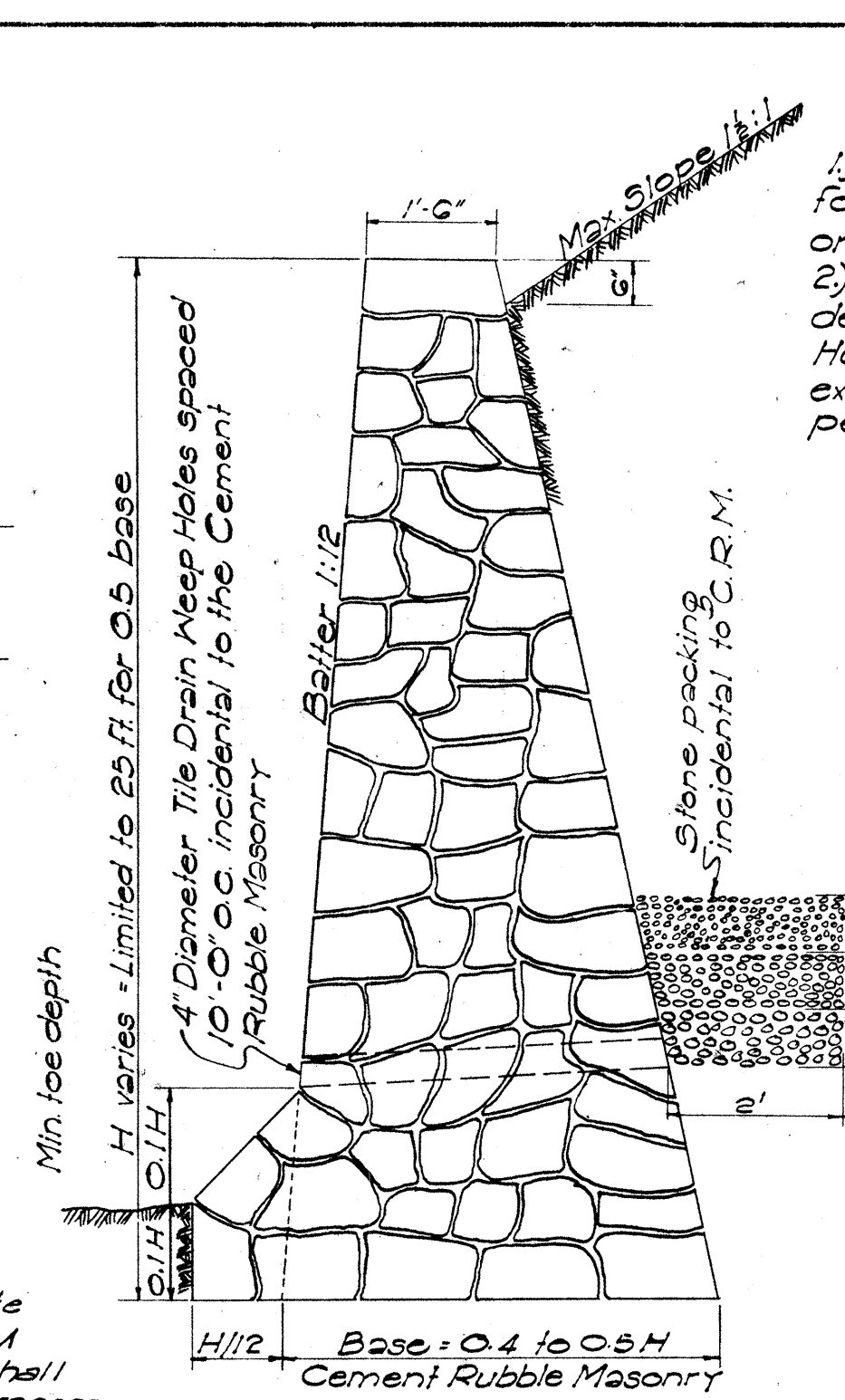
DATA FOR CONC. HEADWALL

D	B	L	H	Cast-in-Place Conc. Culvert Cu. Yds.	Conc. Pipe Culvert Cu. Yds.	Steel For One Headwall
18"	1'-6"	6'-0"	4'-0"	0.92	1.00	4 #4's 2'-3"
24"	1'-6"	7'-6"	4'-6"	1.25	1.35	4 #4's 2'-9"
30"	2'-0"	9'-0"	5'-0"	1.95	2.17	4 #4's 3'-6"
36"	2'-6"	10'-6"	5'-6"	2.74	2.87	4 #4's 4'-3"
42"	2'-6"	12'-0"	6'-0"	3.66	4.00	4 #4's 5'-0"

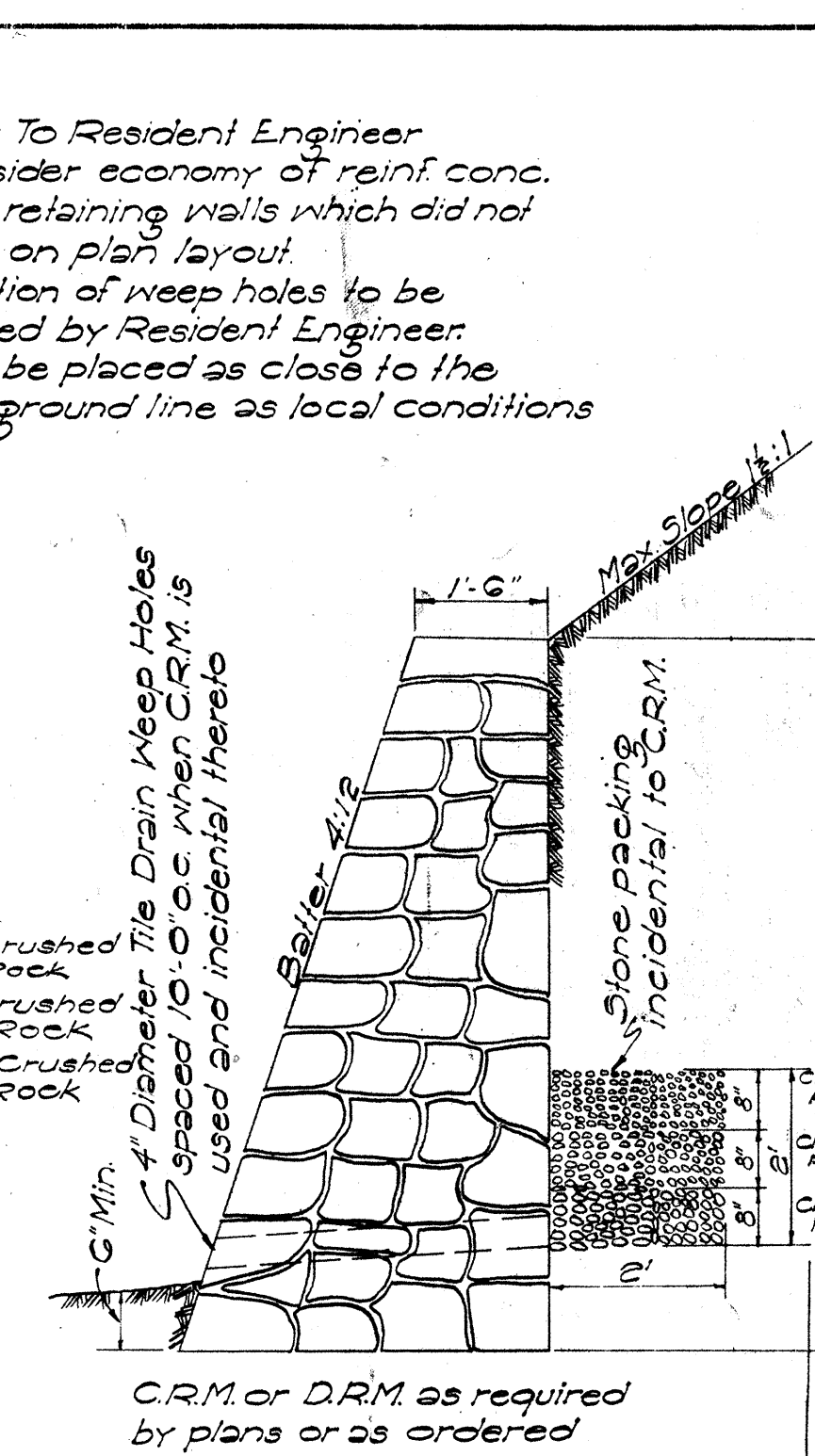
DETAIL OF CONCRETE HEADWALL
Scale: 1/2" = 1'-0"



SECTION "A-A"
CONC. COLLAR FOR CONC. BOX CULVERT
Scale: 1/2" = 1'-0"



SECTION OF HIGH CEMENT
RUBBLE MASONRY RETAINING
WALL OR SEAWALL



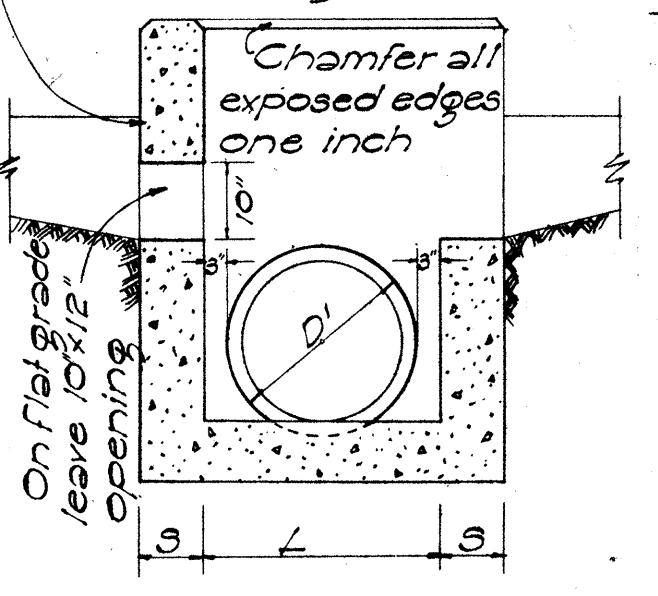
SECTION OF LOW
MASONRY RETAINING
WALL OR SEAWALL

DATA - CONC. DROP INTAKE

D	D	L=D+G	S	Cu. Yds.	Where Variables Equal
23"	18"	2'-5"	8"	1.41	4'-6"
30"	24"	3'-0"	8"	1.72	5'-0"
37"	30"	3'-7"	8"	2.32	5'-6"
44"	36"	4'-2"	8"	2.73	6'-0"
51"	42"	4'-9"	10"	3.54	6'-6"
58"	48"	5'-4"	10"	4.01	7'-0"

Note: Dimension "X" is assumed as
2'-4" in figuring the above quantities

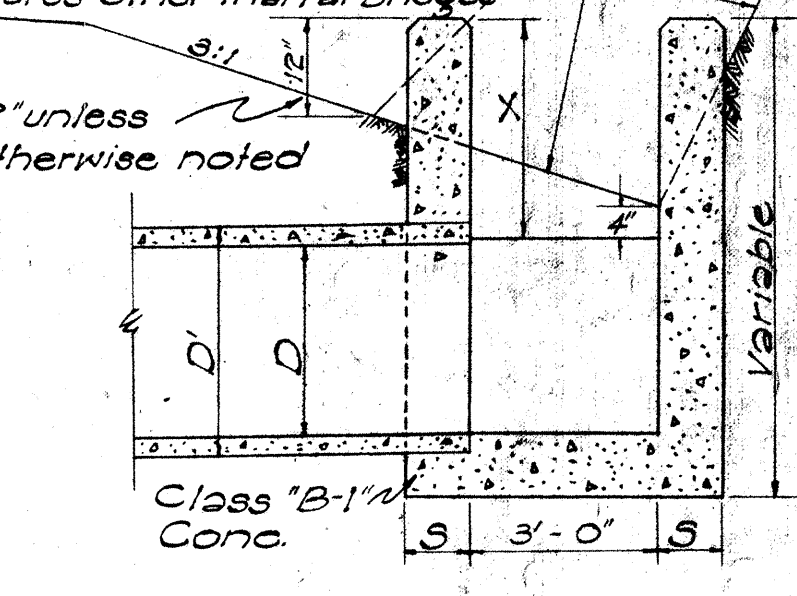
Note: This type of structure
shall also be used for the
Drop Intakes of Siphons
connected with Irrigation
Ditches or Flumes with appro-
priate changes to dimensions.
In this case all joints must be
made water tight.



SECTION "B-B"

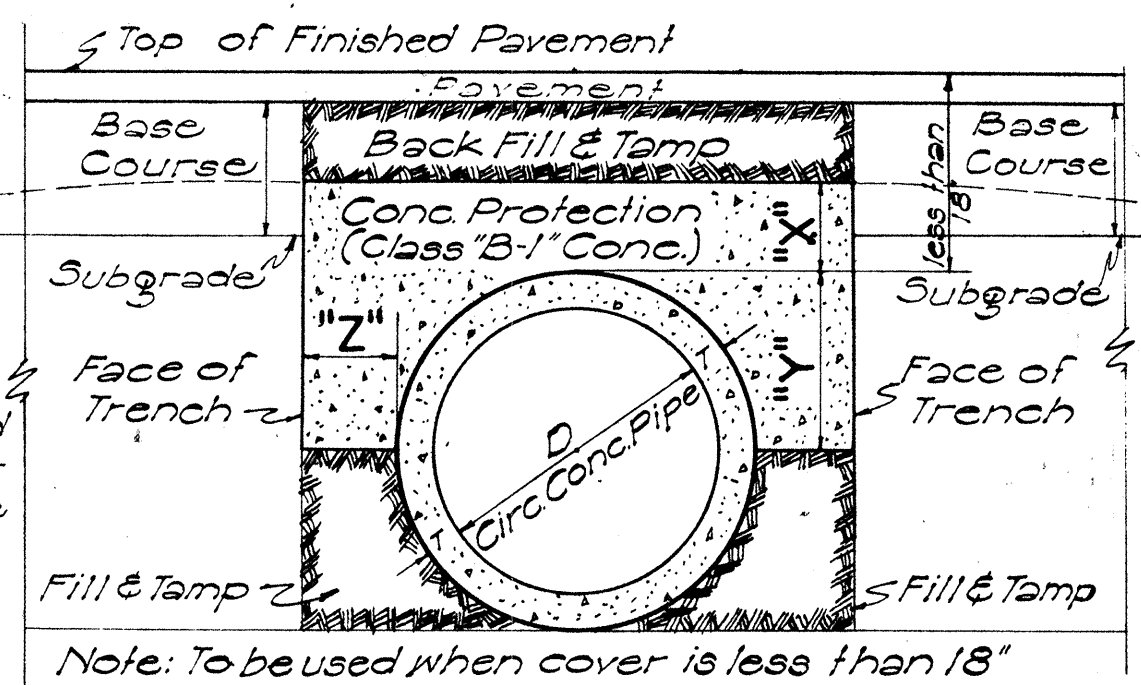
Where drainage comes
from both sides lower
this wall to same ele-
vation as shown for
opposite wall.

Excavate recess in roadway excavation
slope for inlet to dimensions and form
designated by Engineer. This is
"Unclassified Excavation".
Top limits of unclassi-
fied excavation for struc-
tures other than at bridges



SECTION "A-A"

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



DATA FOR CONCRETE PROTECTION OVER CULVERTS

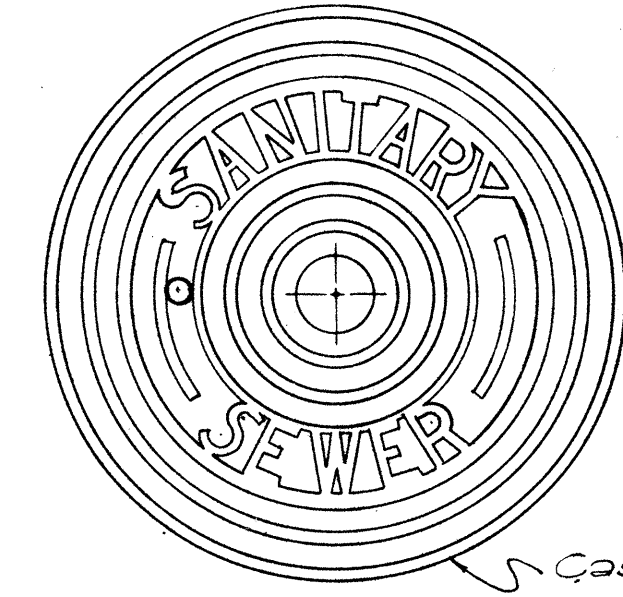
X	Y	Z
6" for 18"D		Z must be from pipe to face of trench
7" " 24"D		
8" " 30"D	D + T	Minimum = X
9" " 36"D		Maximum pay quantity will be Z = 12"
10" " 42"D		
11" " 48"D		
12" " 54"D		

SECT. OF CULVERT WITH CONC. PROTECTION
Scale: 1" = 1'-0"

APPROVED: DATE 6-23-53
Territorial Highway Engineer

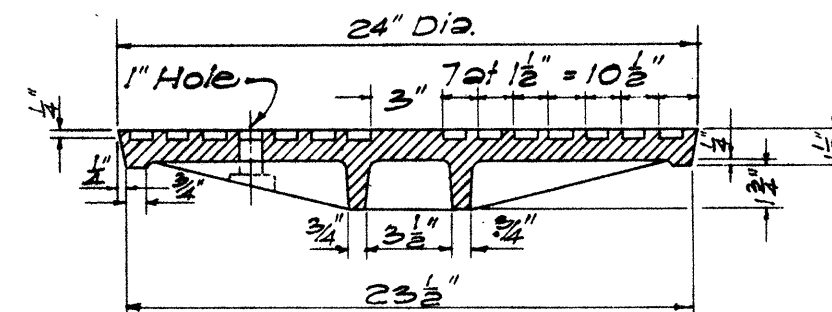
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
STANDARD DETAILS
DROP INTAKES, RETAINING WALLS,
HEADWALLS, CONSTRUCTION JOINTS
SCALES AS NOTED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FOB-10	1955	12	30

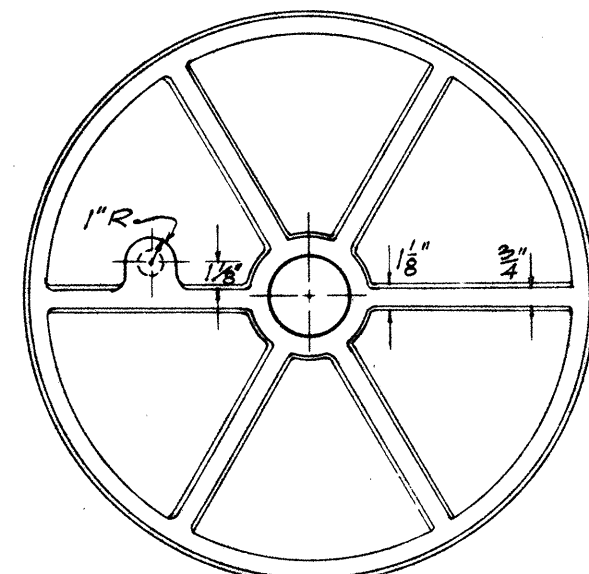


NOTE:
The Cover for Water Manhole shall be the same as for Sanitary Sewer except that the word "WATER" shall be substituted for "SANITARY SEWER". The frames for Sanitary Sewer and Water Covers shall be the same.

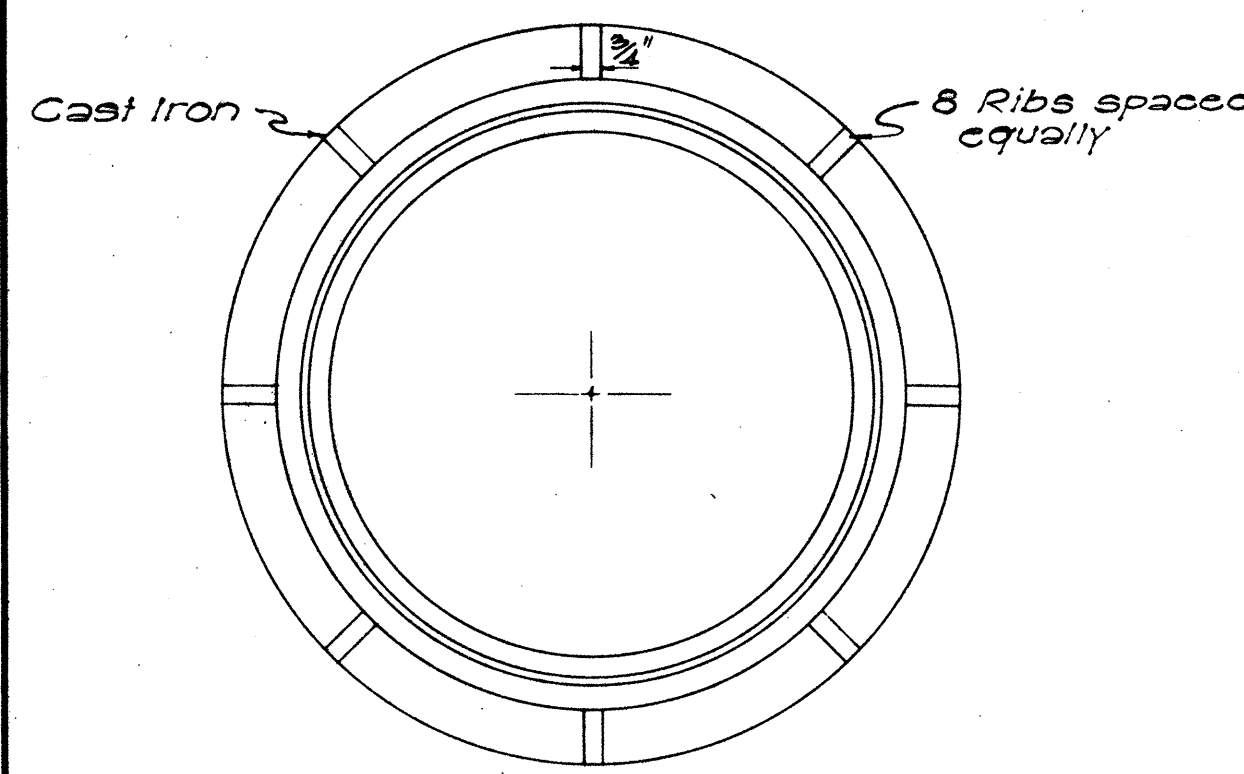
TOP VIEW OF COVER



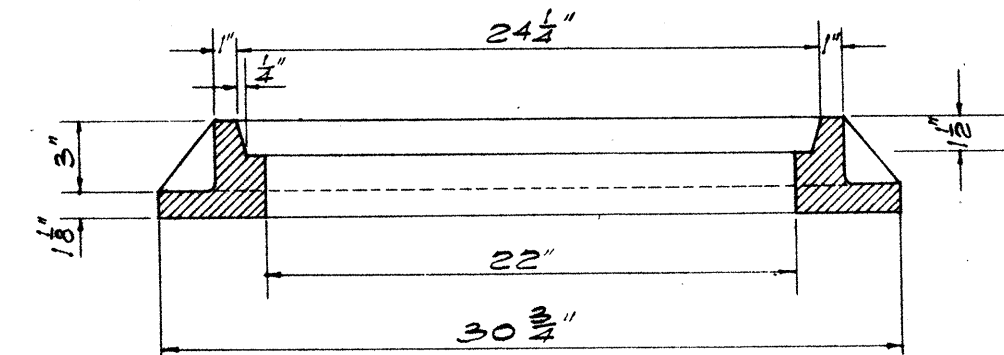
SECTION



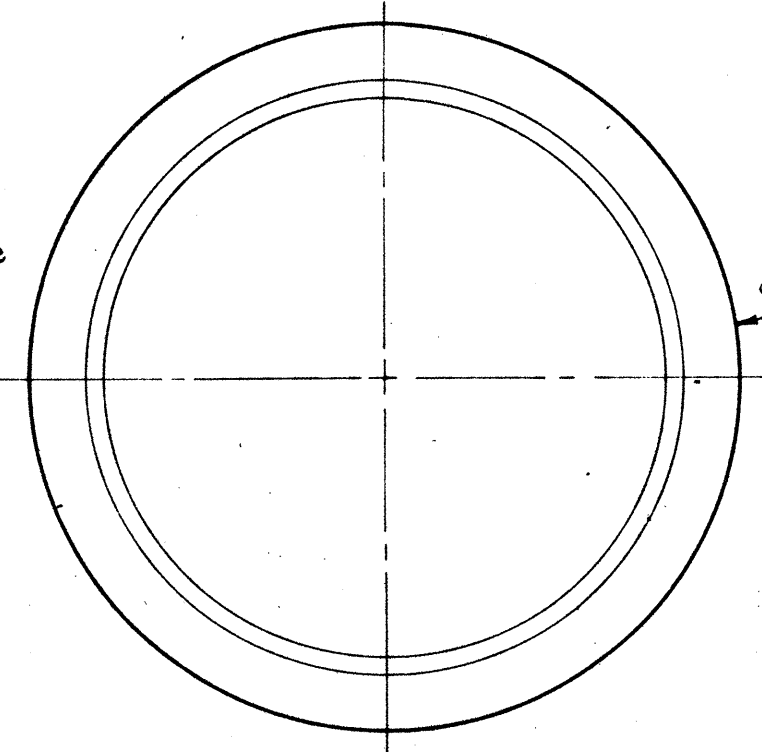
BOTTOM VIEW OF COVER



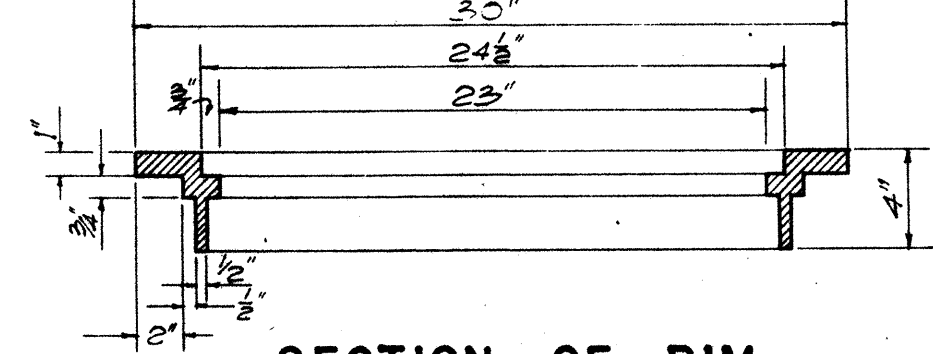
PLAN OF RIM



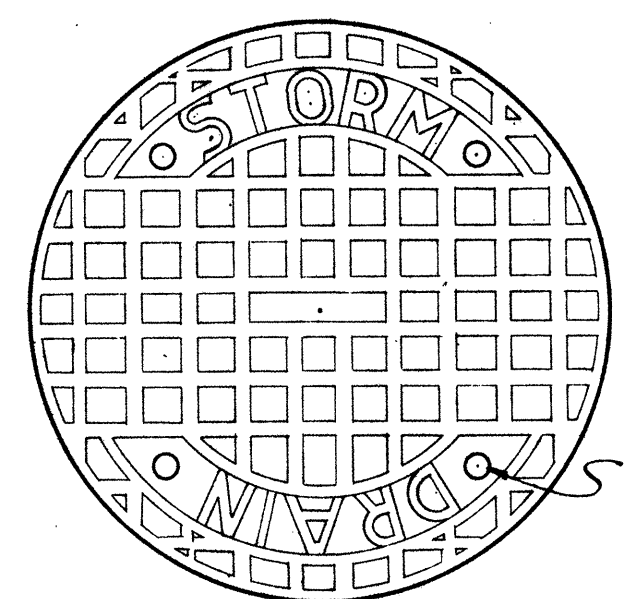
SECTION OF RIM
DETAILS OF TYPE "C"
MANHOLE CASTINGS
SCALE: 1-1/2" = 1'-0"



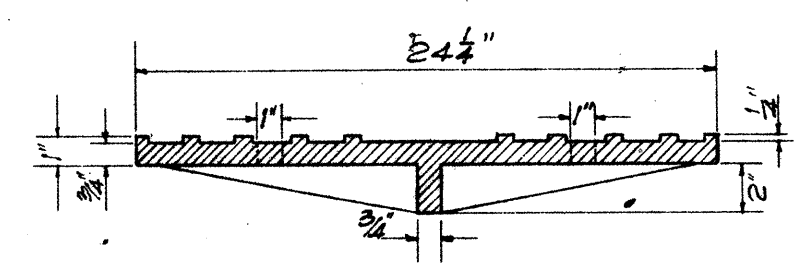
PLAN OF RIM



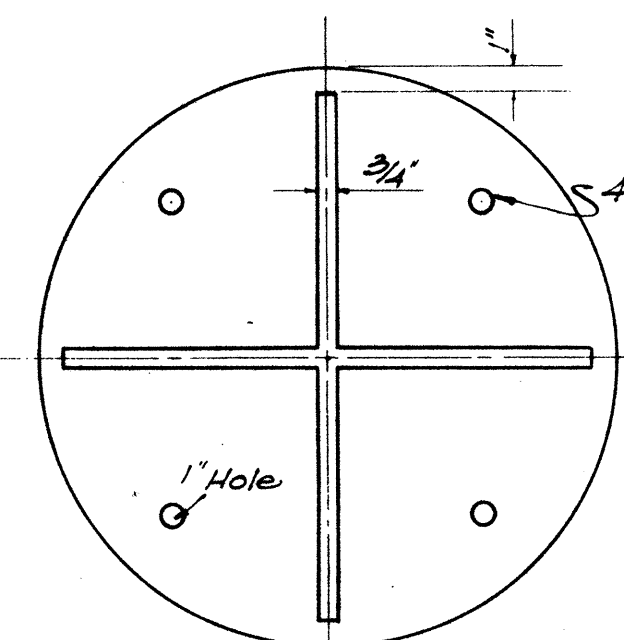
SECTION OF RIM



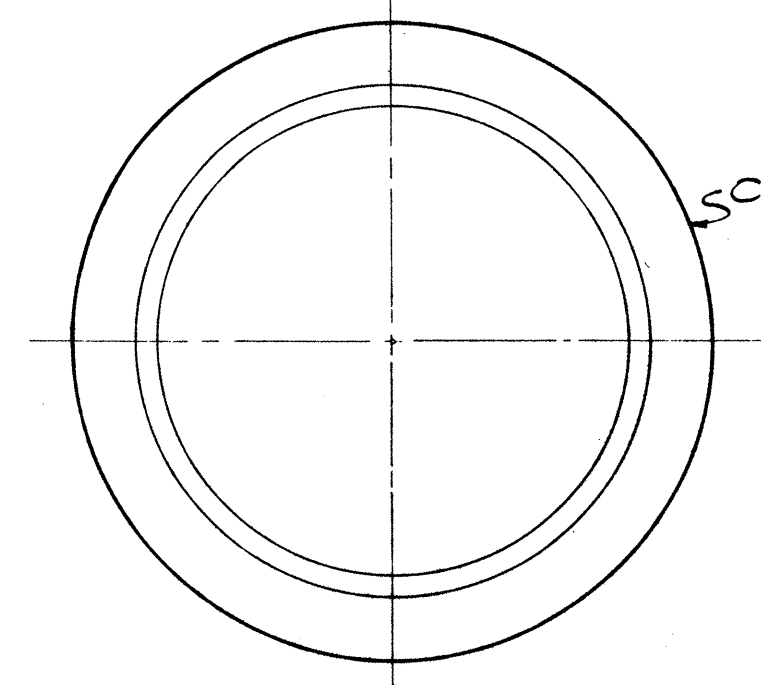
TOP VIEW OF COVER



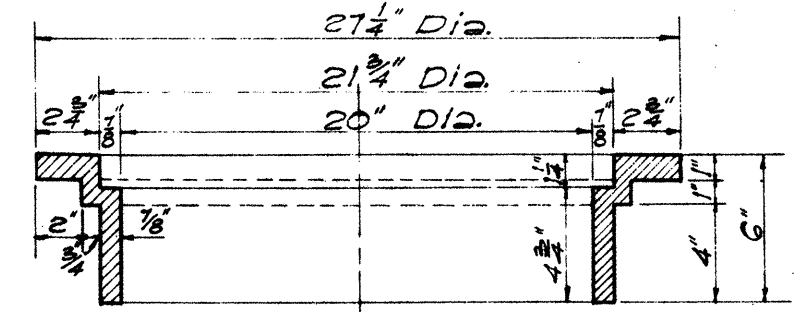
SECTION



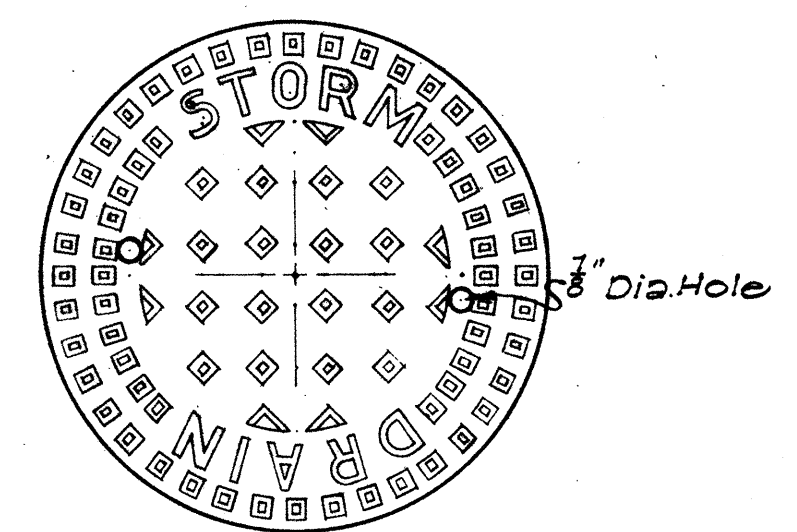
BOTTOM VIEW OF COVER
DETAILS OF TYPE "B"
CATCH BASIN CASTINGS
SCALE: 1-1/2" = 1'-0"



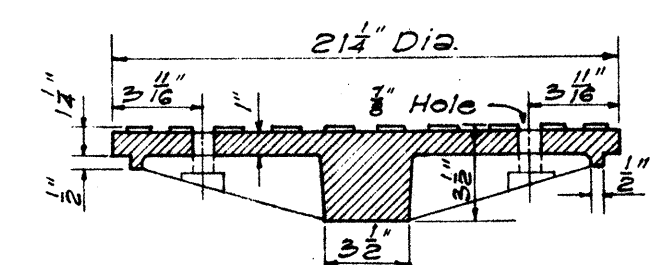
PLAN OF RIM



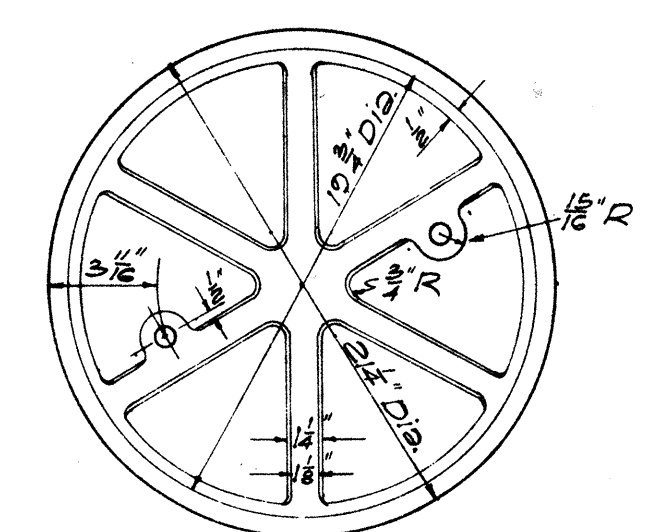
SECTION OF RIM



TOP VIEW OF COVER

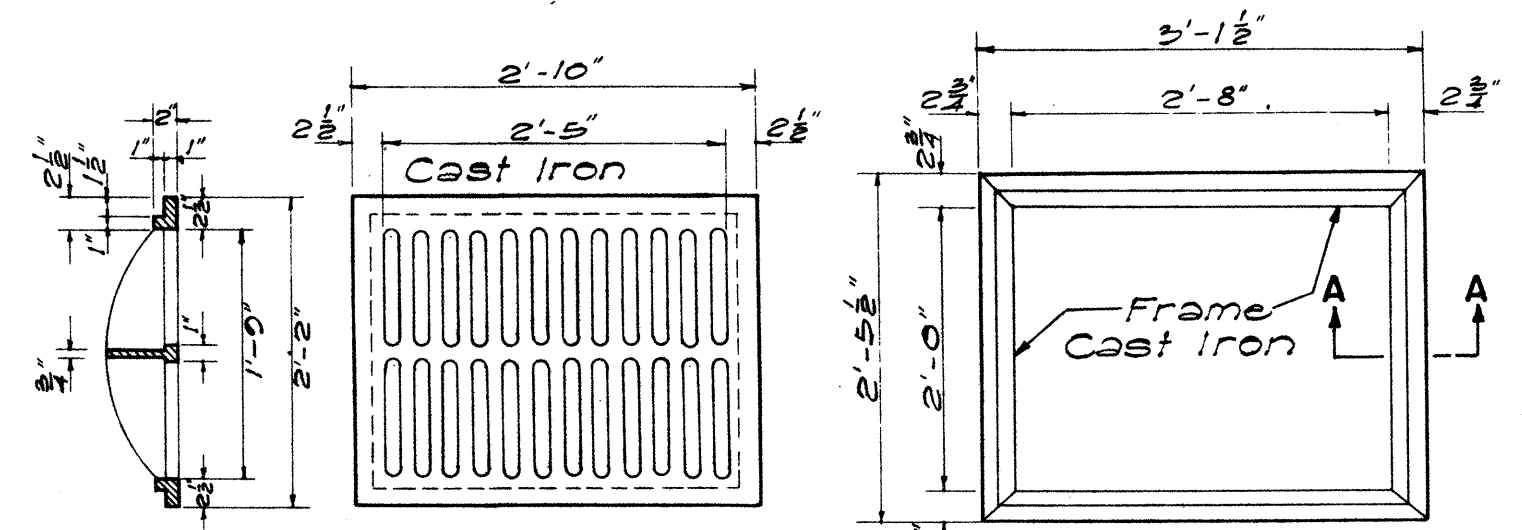


SECTION

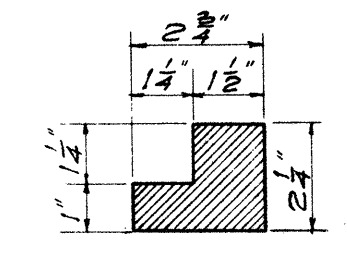


BOTTOM VIEW OF COVER
DETAILS OF TYPE "A"
MANHOLE CASTINGS
SCALE: 1-1/2" = 1'-0"

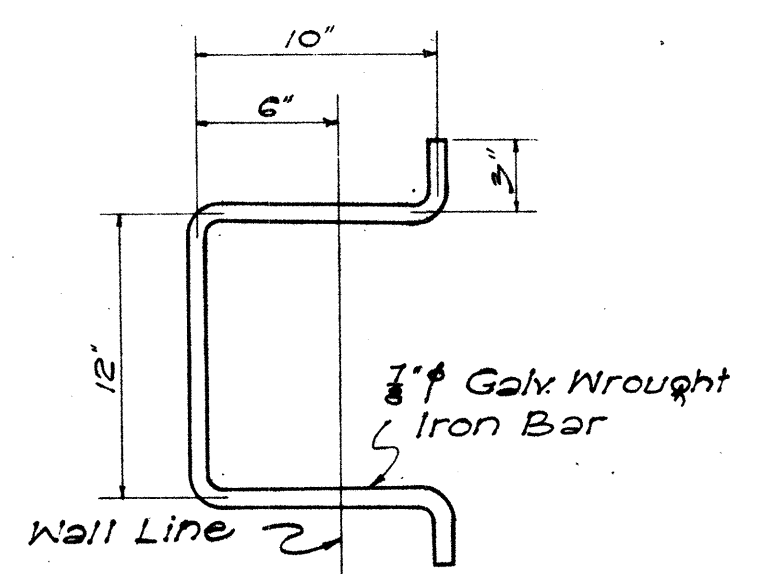
NOTE: Stock Pattern From Novelty Foundry ~ Honolulu



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



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



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

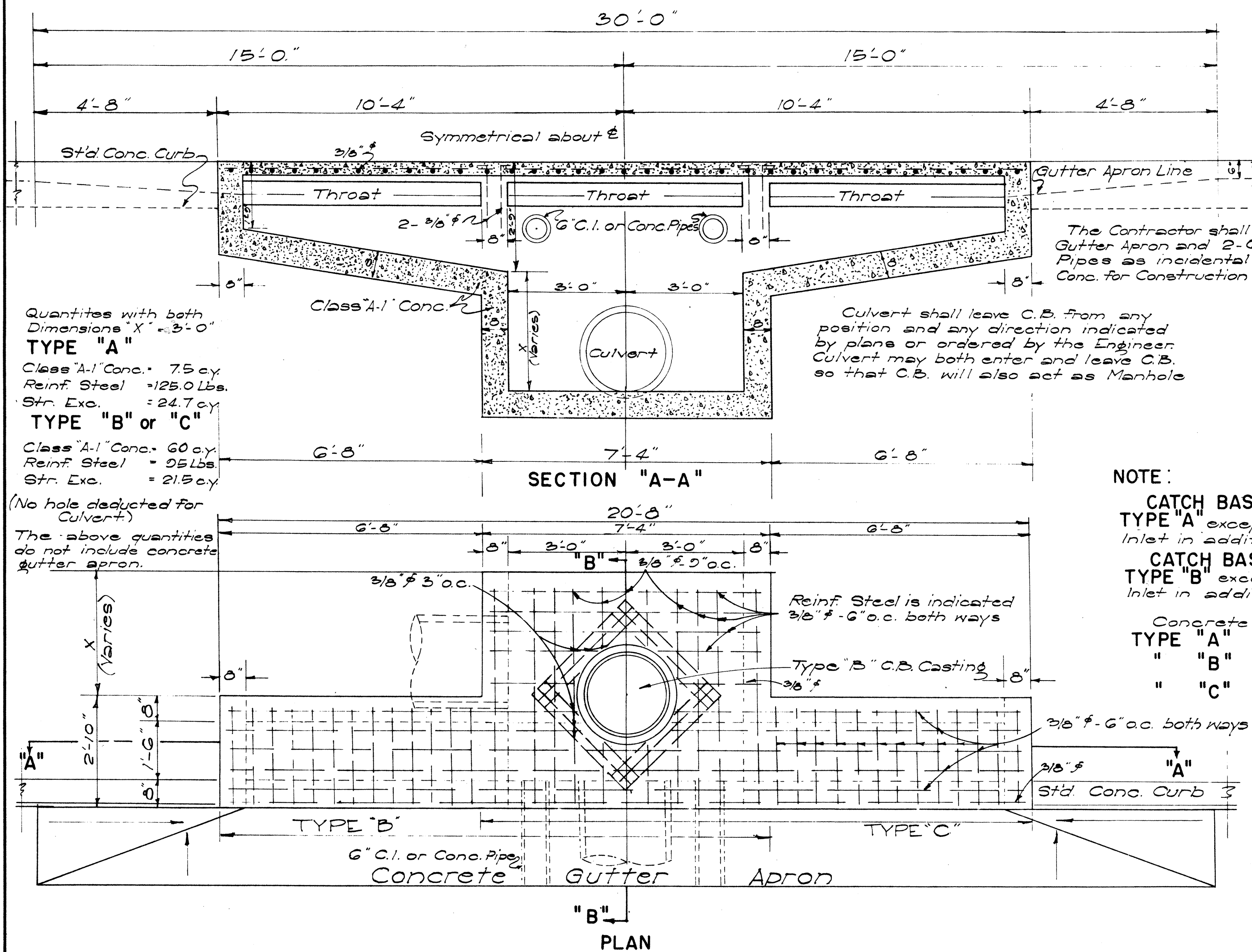
DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

APPROVED: DATE 6-22-55
Territorial Highway Engineer

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
STANDARD DETAILS
CATCH BASIN AND
MANHOLE CASTINGS
SCALES AS NOTED
SHEET No 2 OF 8 SHEETS

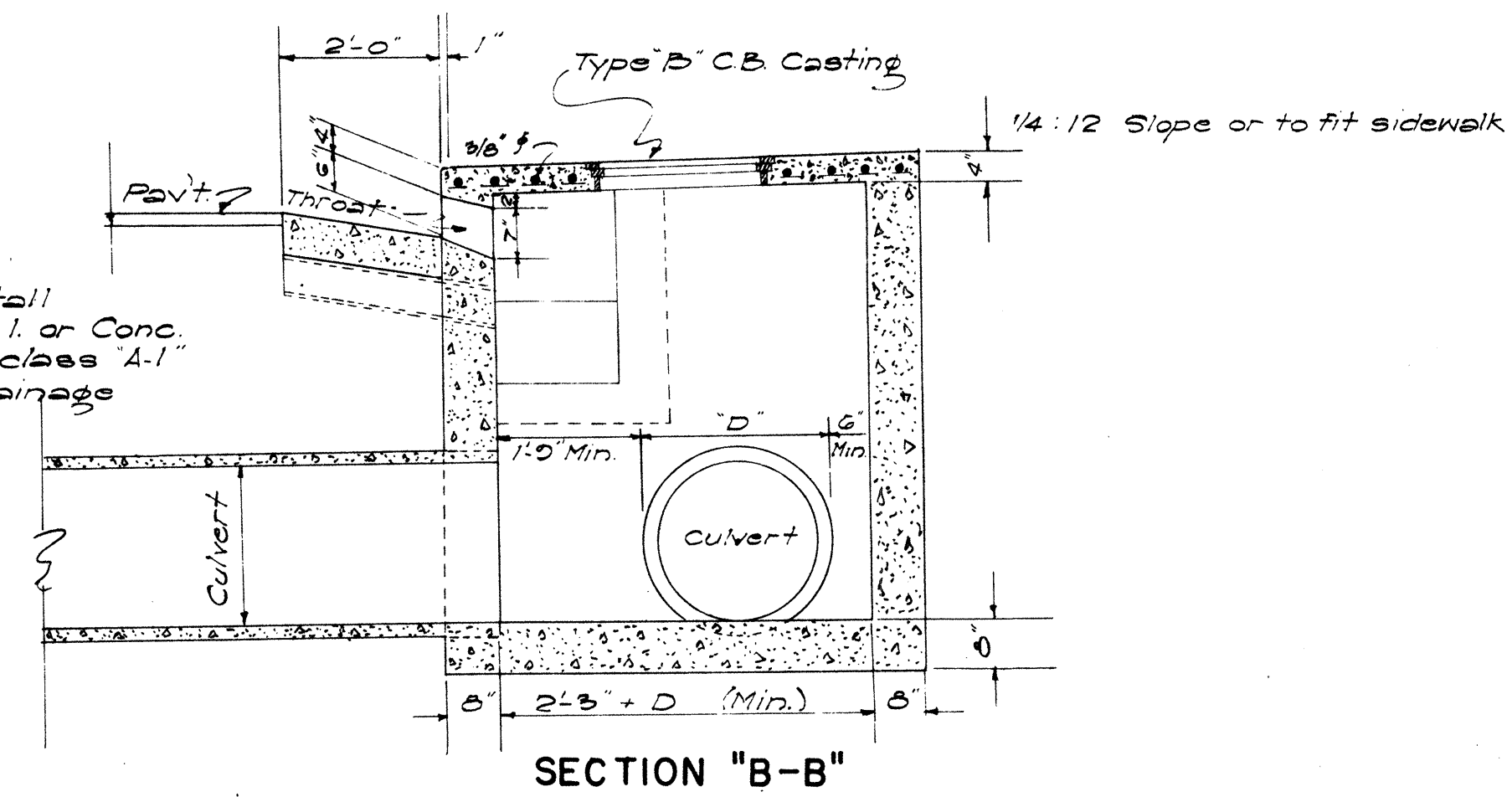
5644.12

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	2028-100	1955	13	30



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

NOTE:
Provide Manhole Rungs where necessary.



APPROVED: DATE 6-23-52
R. E. Hutter
TERRITORIAL HIGHWAY ENGINEER

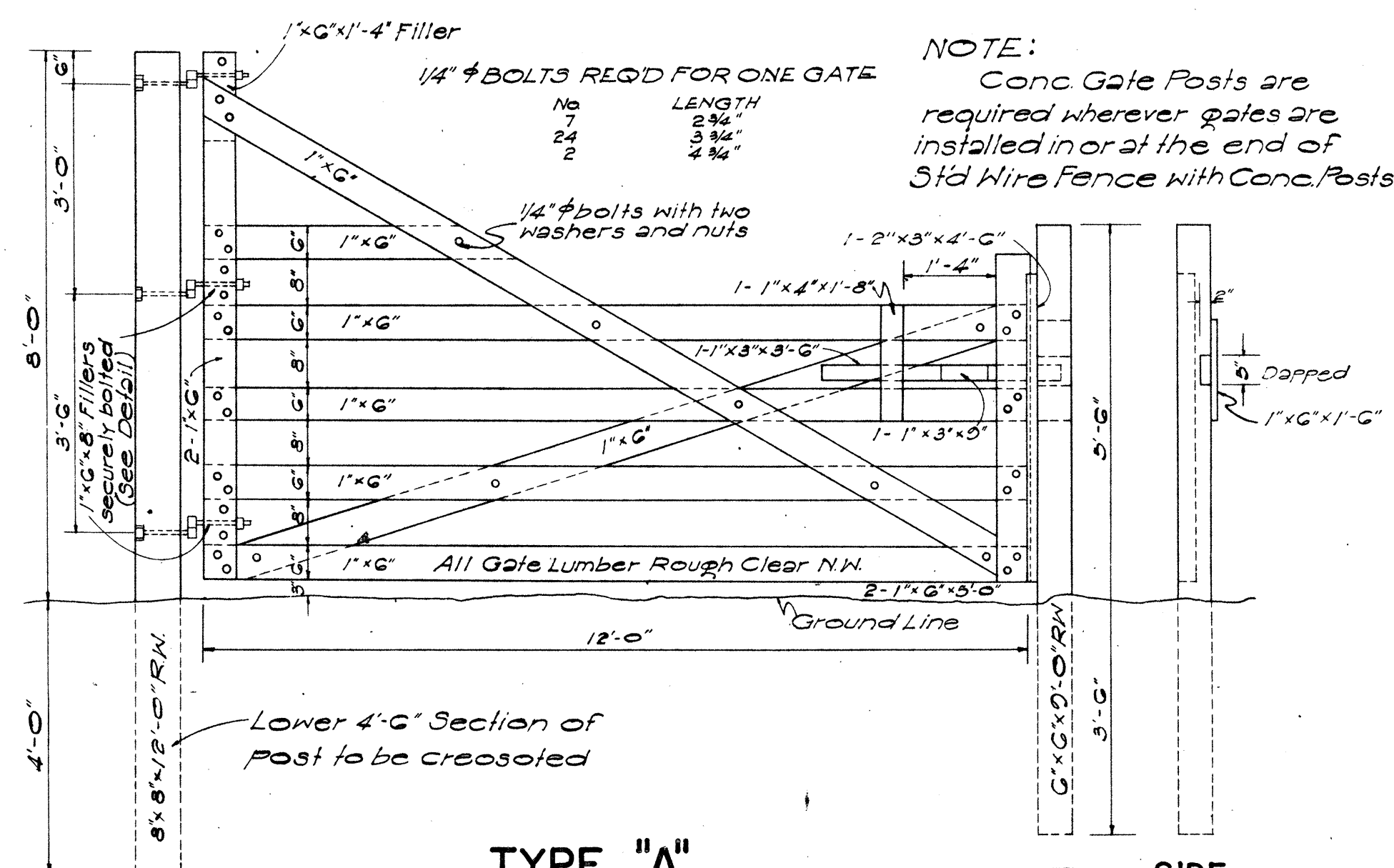
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
STANDARD DETAILS
CATCH BASINS

SCALES AS NOTED

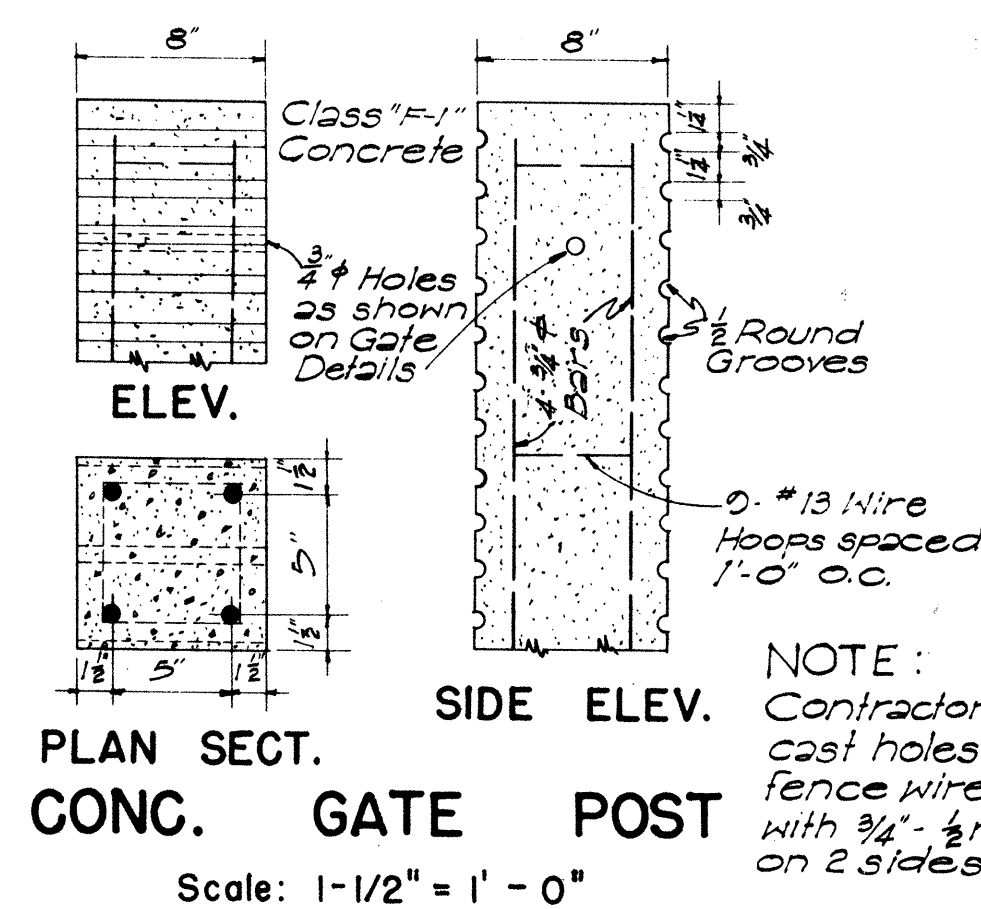
SHEET No 3 OF 8 SHEETS

5644.13

ORIGINAL PLAN	DATE
NOTED BY	
QUANTITIES BY	
CHECKED BY	

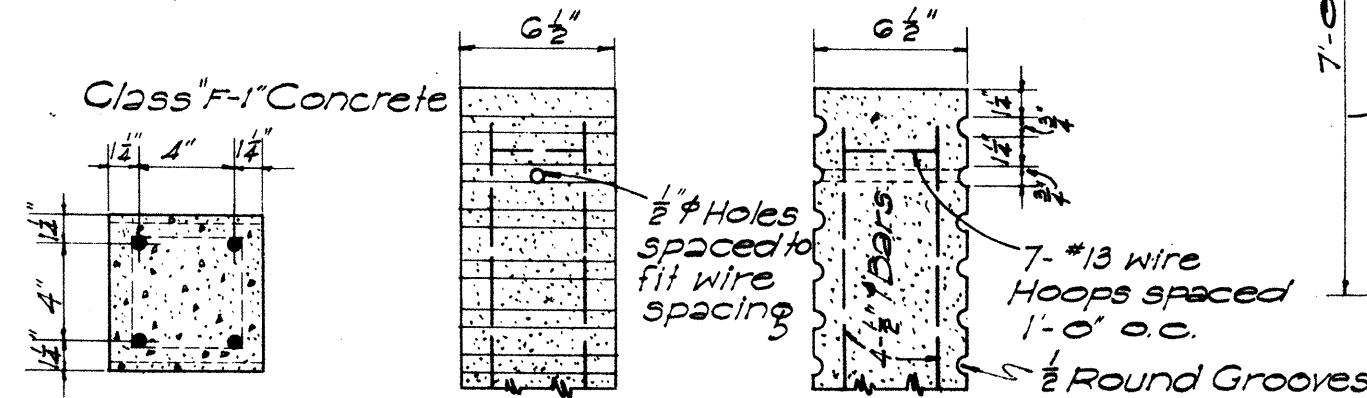


TYPE "A"
DETAIL OF CATTLE GATE
Scale: 1/2" = 1' - 0"

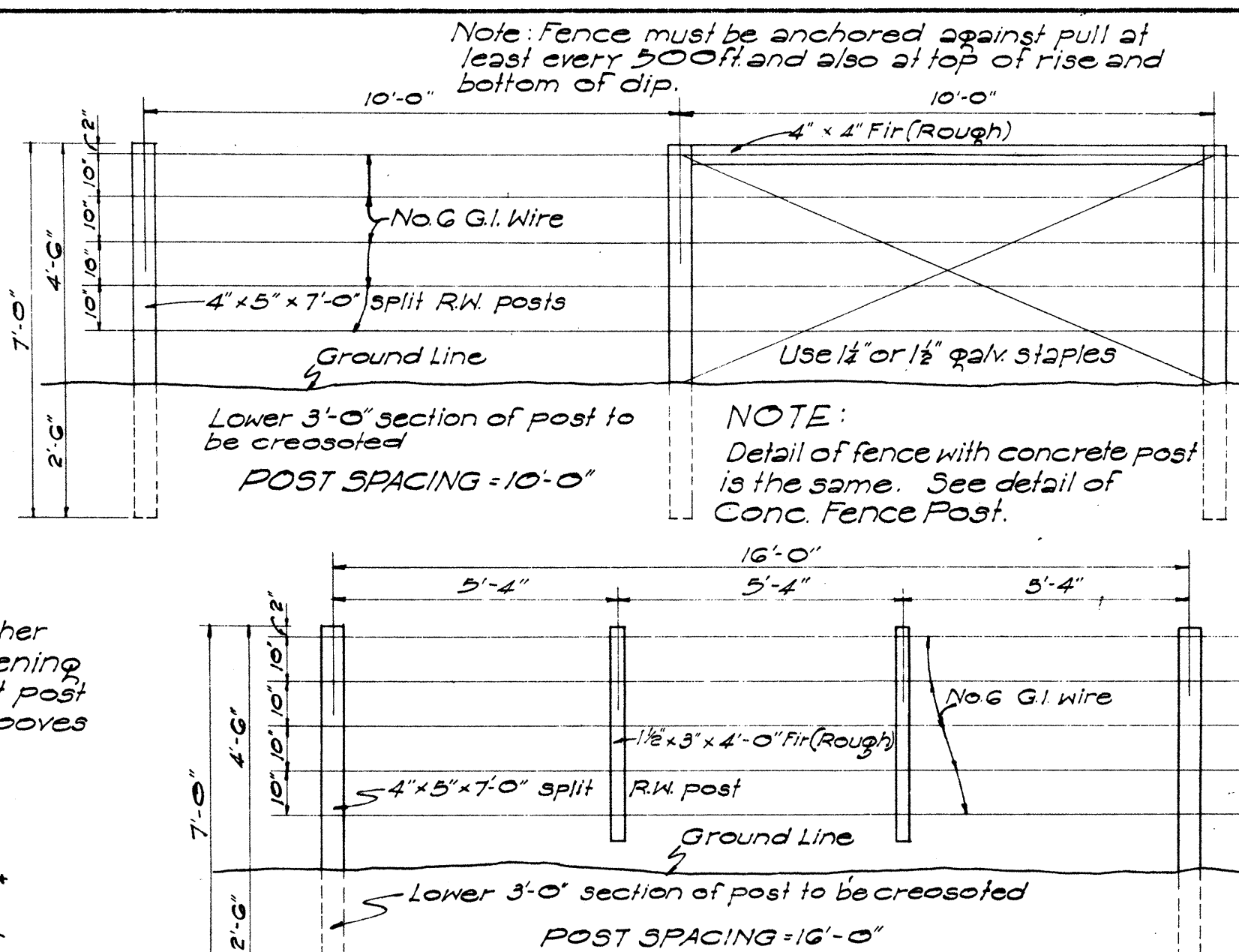


PLAN SECT. SIDE ELEV.

CONC. GATE POST

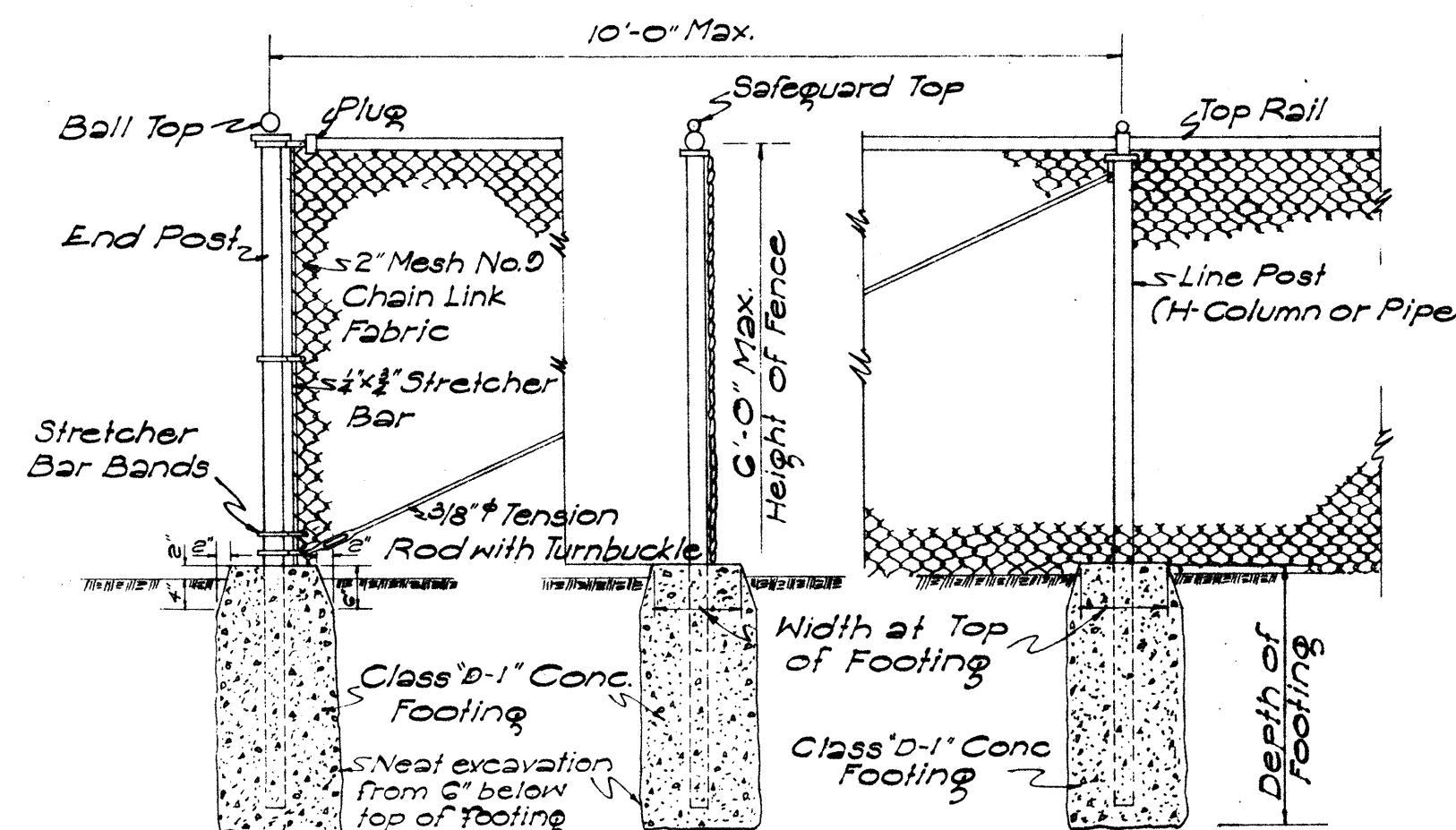


PLAN SECT. ELEV. SIDE
CONC. FENCE POST
Scale: 1-1/2" = 1'-0"

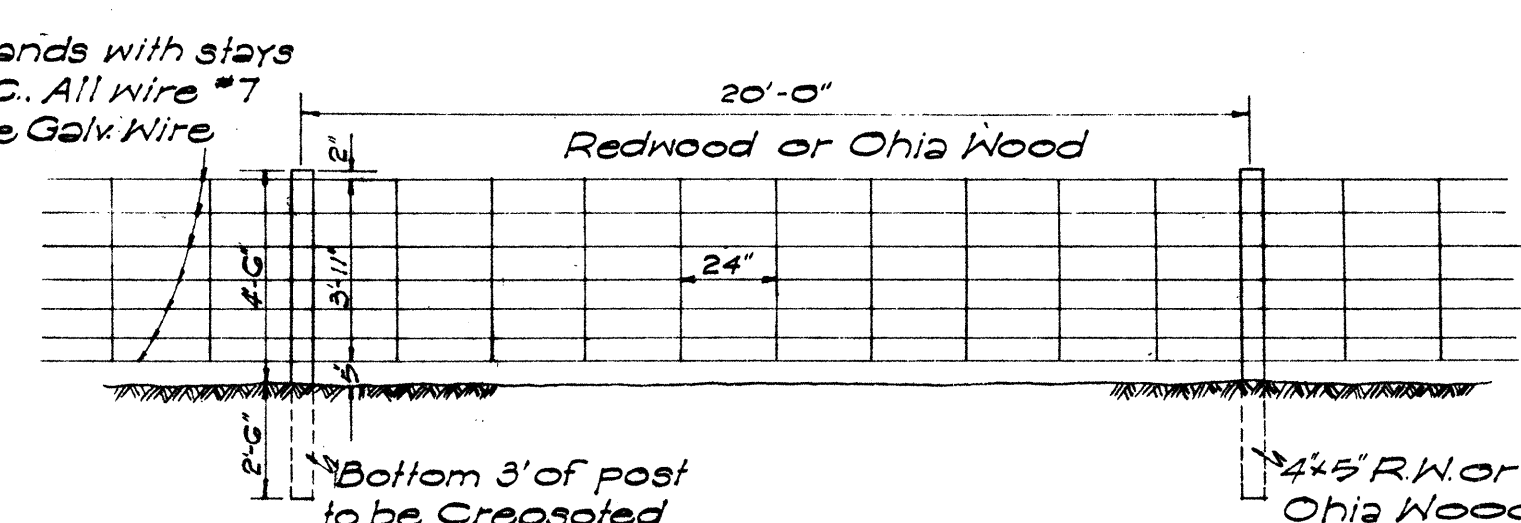


DETAILS OF STANDARD WIRE FENCE WITH WOOD POSTS

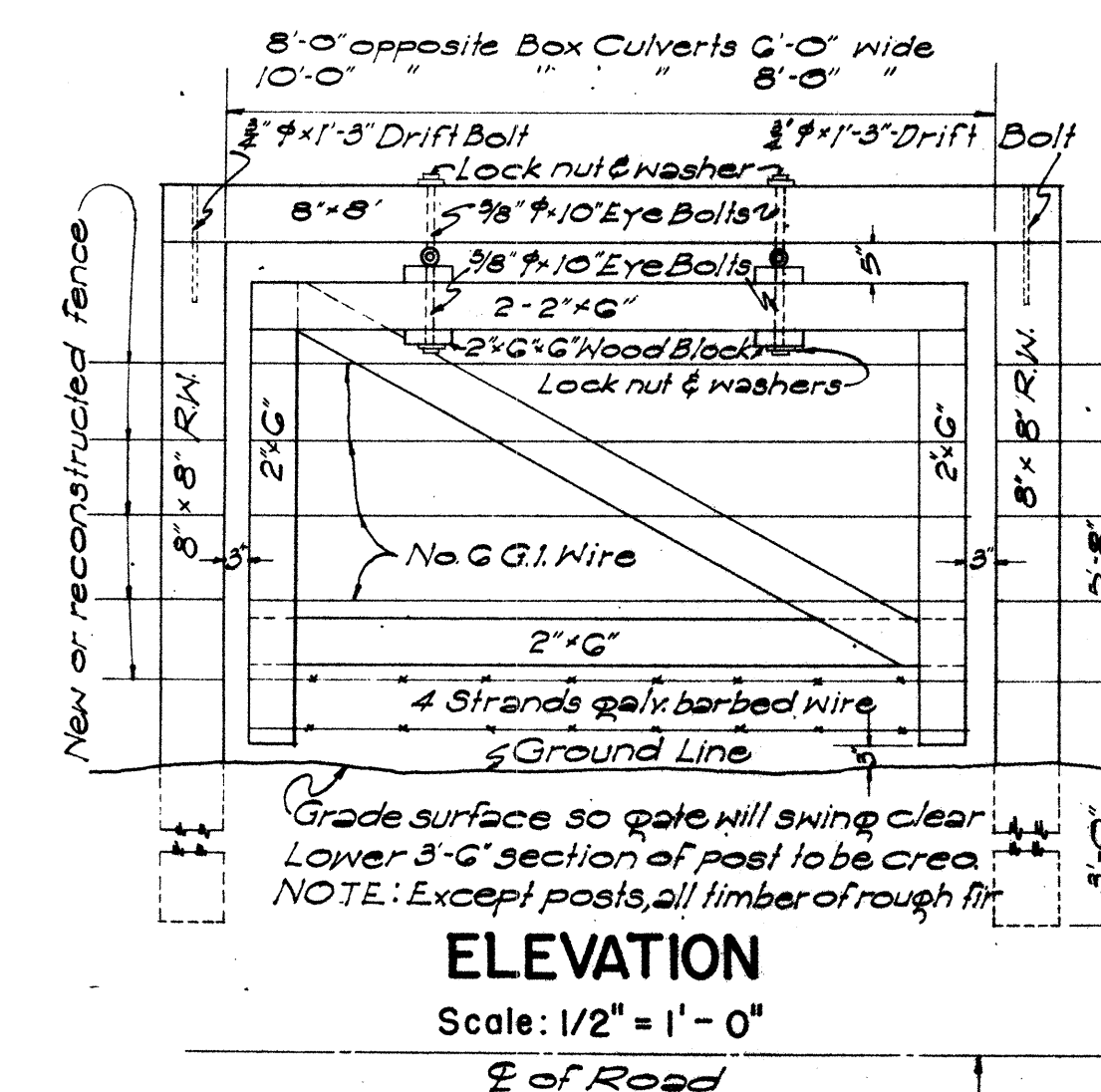
Height of Fence	Line Post	End Post	Top Rail	Depth of Footing	Top of Footing	Length of Posts
	Column	Pipe	Pipe	End Line	Size	End Line
3'	1.875 ft	3.00	2.00	3.00	24"	8" sq.
4'	1.875 ft	3.00	2.00	3.00	24"	10" sq.
5'	2.125 ft	3.00	2.00	3.00	36"	12" sq.
6'	2.25 ft	3.00	2.00	3.00	36"	12" sq.



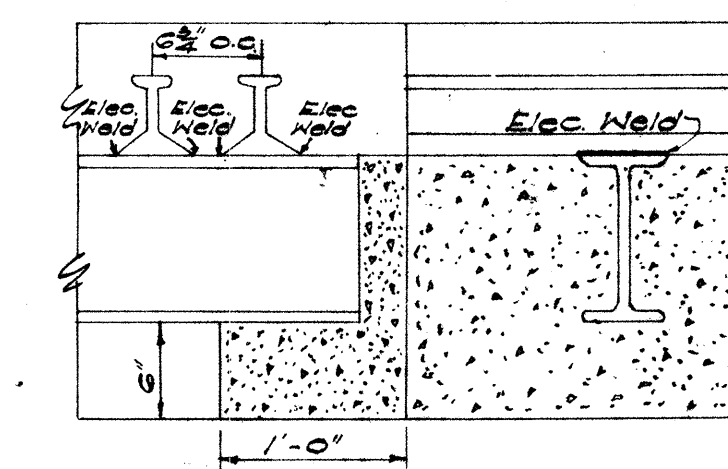
END POST ELEV.	TYPICAL SECTION	LINE POST ELEV.
----------------	-----------------	-----------------



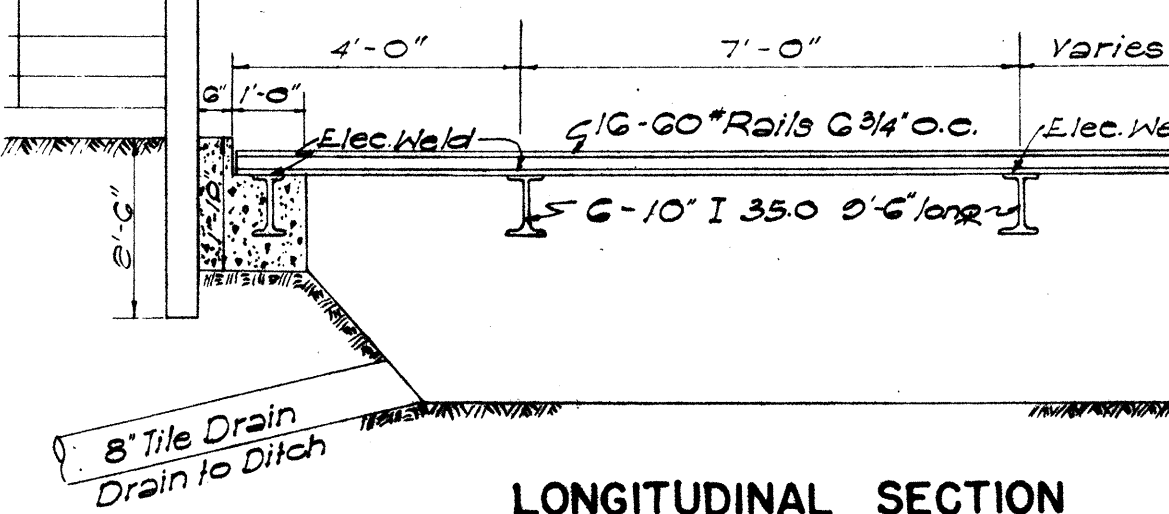
DETAIL OF WOVEN WIRE FENCE



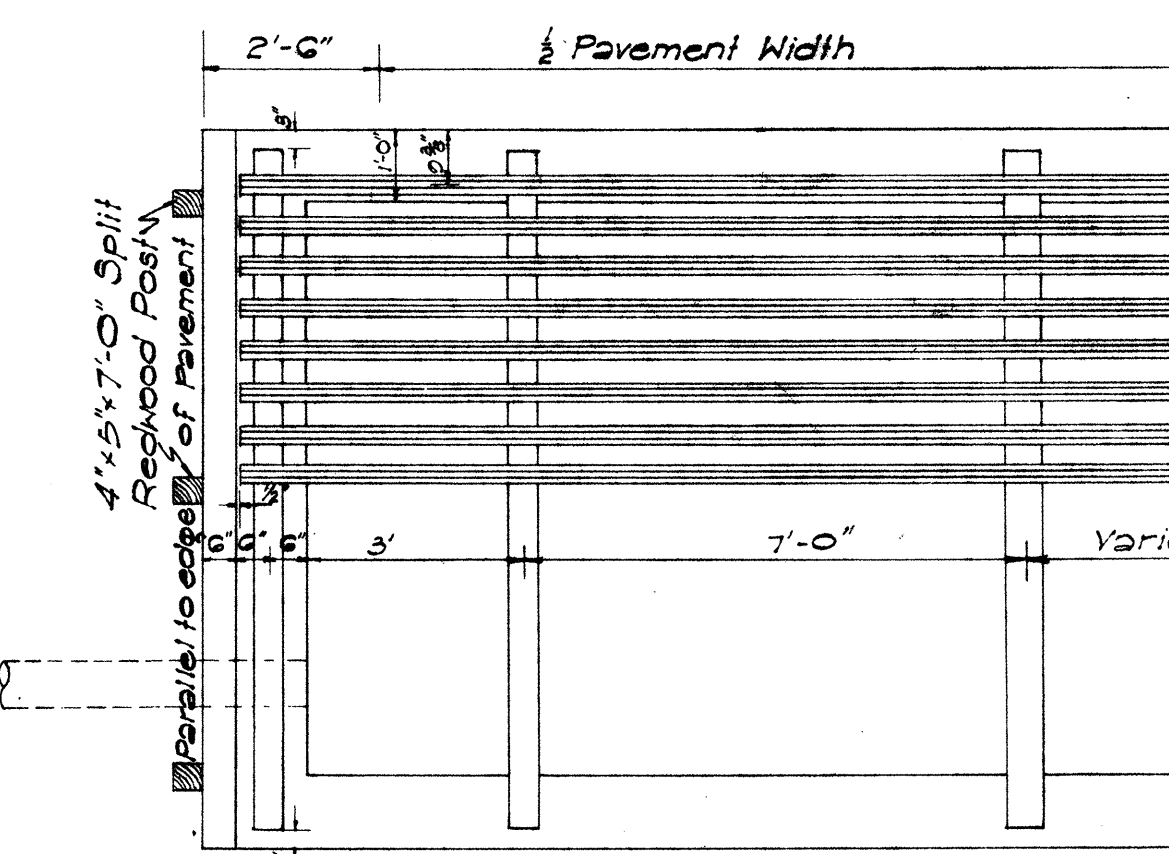
LAYOUT SHOWING HURDLE PLACED
BELOW CULVERT IN A POSITION
WHICH WILL BE CATTLE TIGHT



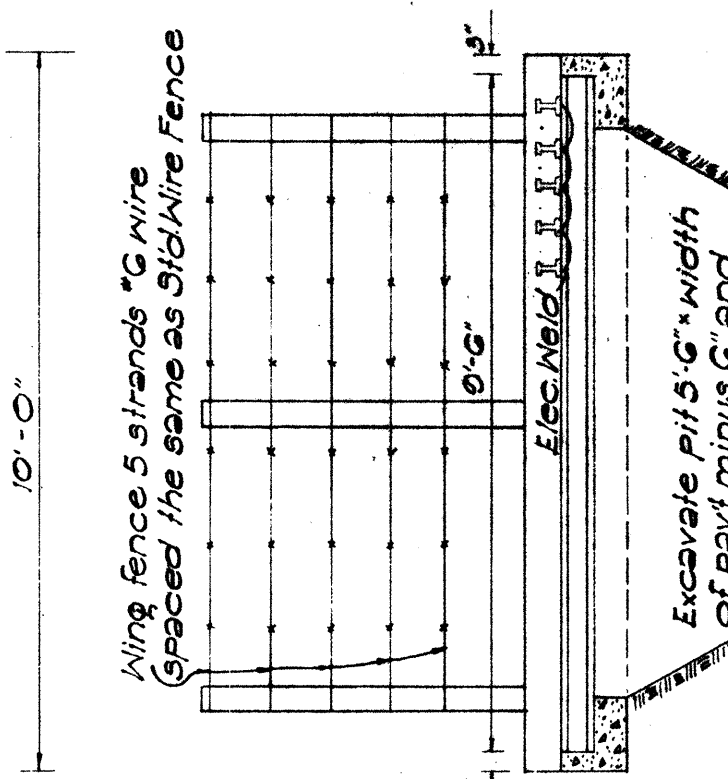
SECTION



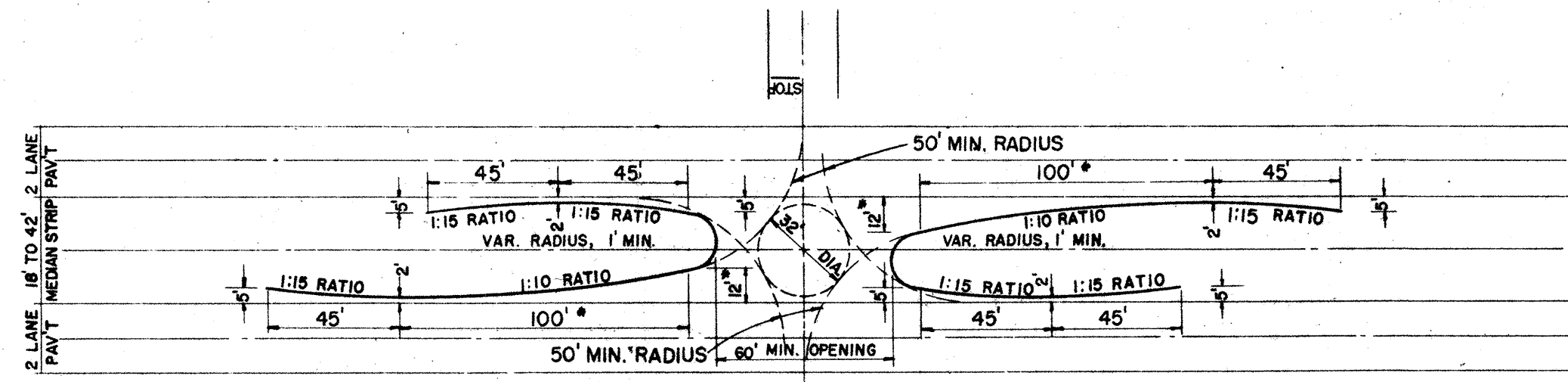
LONGITUDINAL SECTION



HALF SECTION

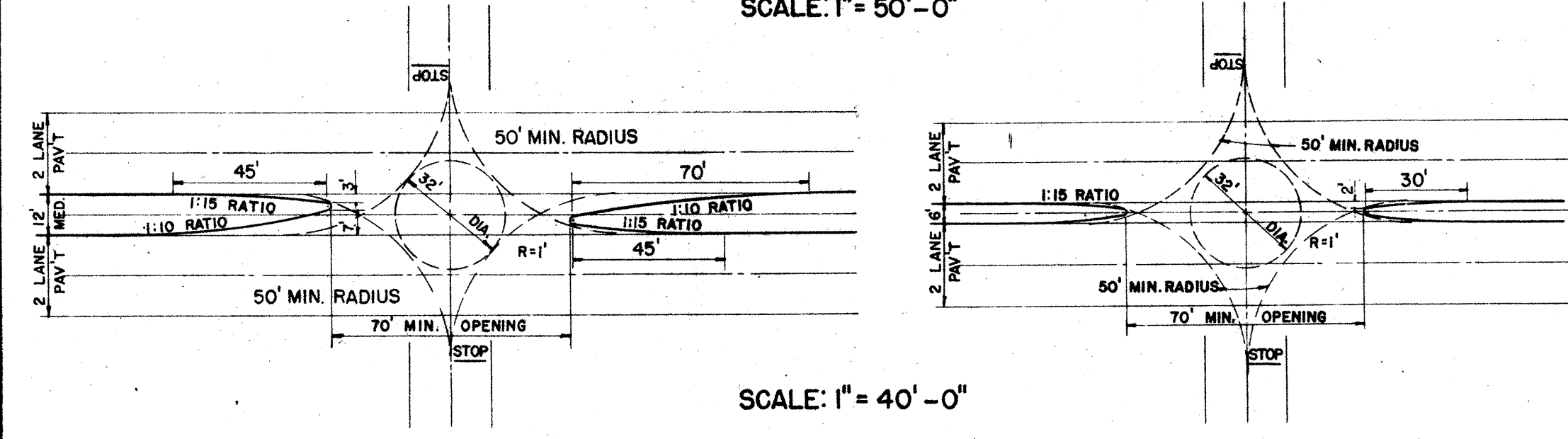


TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
STANDARD DETAILS
FENCES, GATES, GUARD RAILS
GUIDE POSTS, CATTLE GUARD
SCALES AS NOTED



NOTE:
* WITH AN 18' MEDIAN STRIP, THE OFFSET MUST BE REDUCED TO 11', WHICH IN TURN REDUCES THE 1:1.0 FLARE TO 90'.

SCALE: 1" = 50'-0"



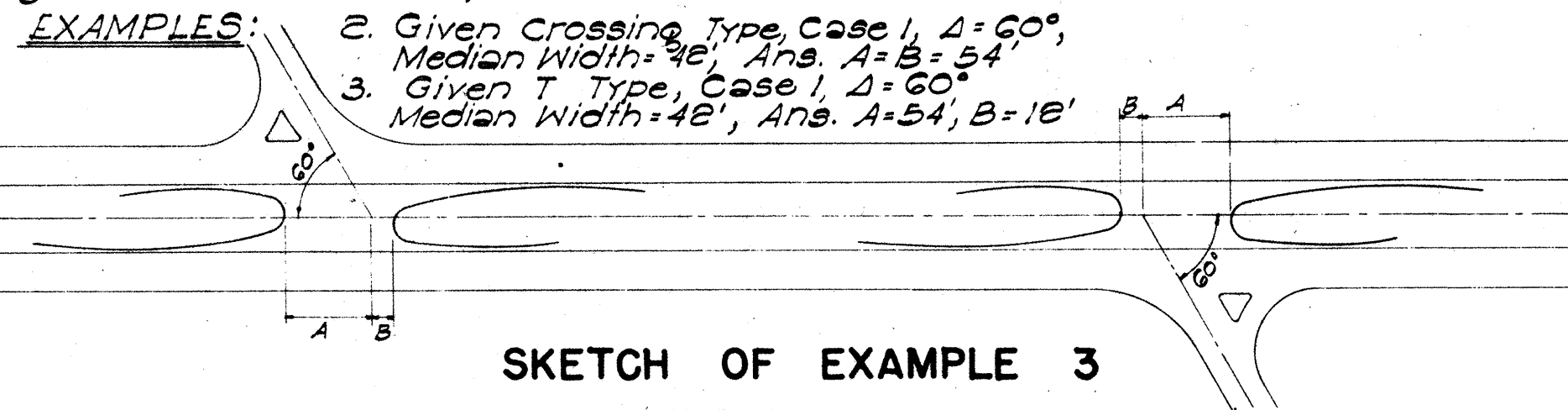
SCALE: 1" = 40'-0"

DETAILS OF MEDIAN STRIP OPENINGS

ANGLE OF INTER.	WIDTH OF MEDIAN STRIP											
	42'			36'			30'			24'		
60°	54	12	58	14	58	14	62	14	64	14	66	14
65°	48	14	52	16	52	16	56	16	58	16	60	16
70°	42	16	46	18	46	18	50	18	52	18	54	18
75°	36	18	40	20	40	20	44	20	46	20	48	20
80°	32	20	36	22	36	22	38	22	40	22	42	22
85°	30	22	32	24	32	24	34	24	36	24	38	24
90°	30	24	30	26	30	26	30	26	32	26	34	26
95°	30	26	30	28	30	28	32	28	34	28	36	28
100°	30	28	30	30	30	30	34	30	36	30	38	30
105°	30	30	30	32	30	32	36	32	38	32	40	32
110°	28	32	28	34	28	34	38	34	40	34	42	34
115°	28	34	28	36	28	36	40	36	42	36	44	36
120°	28	36	28	38	28	38	42	38	44	38	46	38

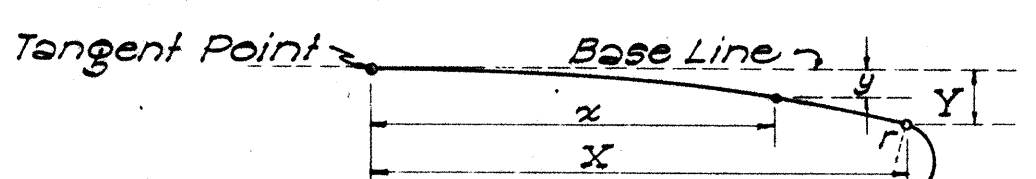
CASE 1	CASE 2					
	ANGLE OF INTERSECTION					
60°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
65°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
70°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
75°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
80°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
85°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
90°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
95°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
100°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
105°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
110°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
115°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2
120°	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2	R=12 1/2

NOTES:
1) A & B = Distance in feet from Island Nose to Centerline of Intersection.
2) In a Crossing Intersection A & B are both equal to the larger distance.
3) In a T Intersection A & B must be measured as shown below. The larger distance is always on the same side with the acute angle.
4) The minimum radius of 50 ft. should always be scribed on a large scale drawing so that no misinterpretation of the tabulated values is made.



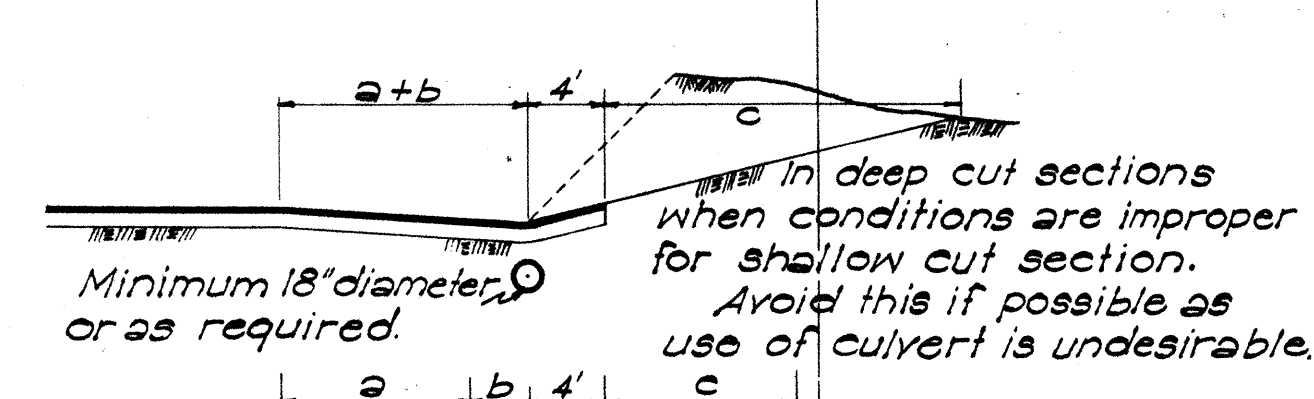
SKETCH OF EXAMPLE 3
NOT TO SCALE

These Curves are based upon the following formula:
 $y = \frac{X^2}{2A}$
Where: y = any offset, x = its tangent dist.
X = maximum tangent distance
Y = maximum offset

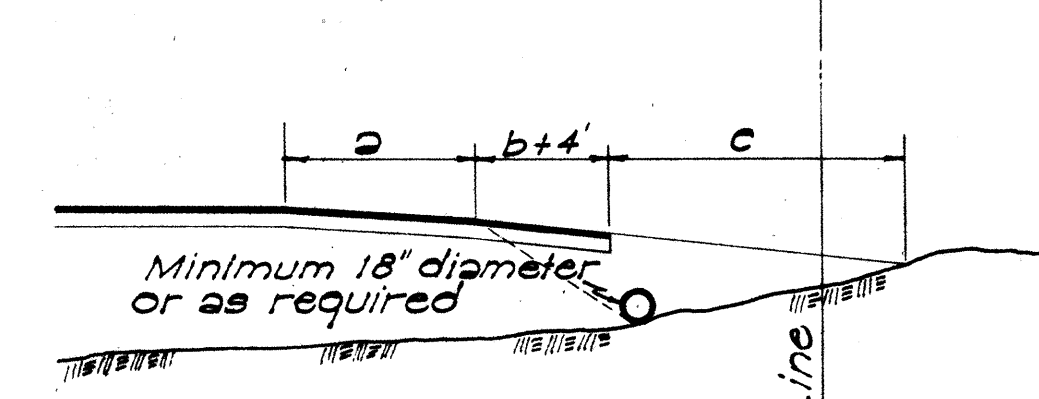


RATIO CURVE DATA		Offset in Feet (y)					
Dist. (x)	Ratio	2:30	3:45	5:50	7:10	9:20	10:100
10	0.22	0.15	0.20	0.14	0.11	0.10	
20	0.80	0.50	0.80	0.57	0.44	0.40	
30	2.00	1.33	1.80	1.20	1.00	0.90	
40		2.37	3.20	2.20	1.78	1.60	
50			3.60	2.57	2.18	2.00	
60				3.14	2.60	2.40	
70				3.60	3.11	2.90	
80					3.60	3.10	
90						3.10	
100							10.00

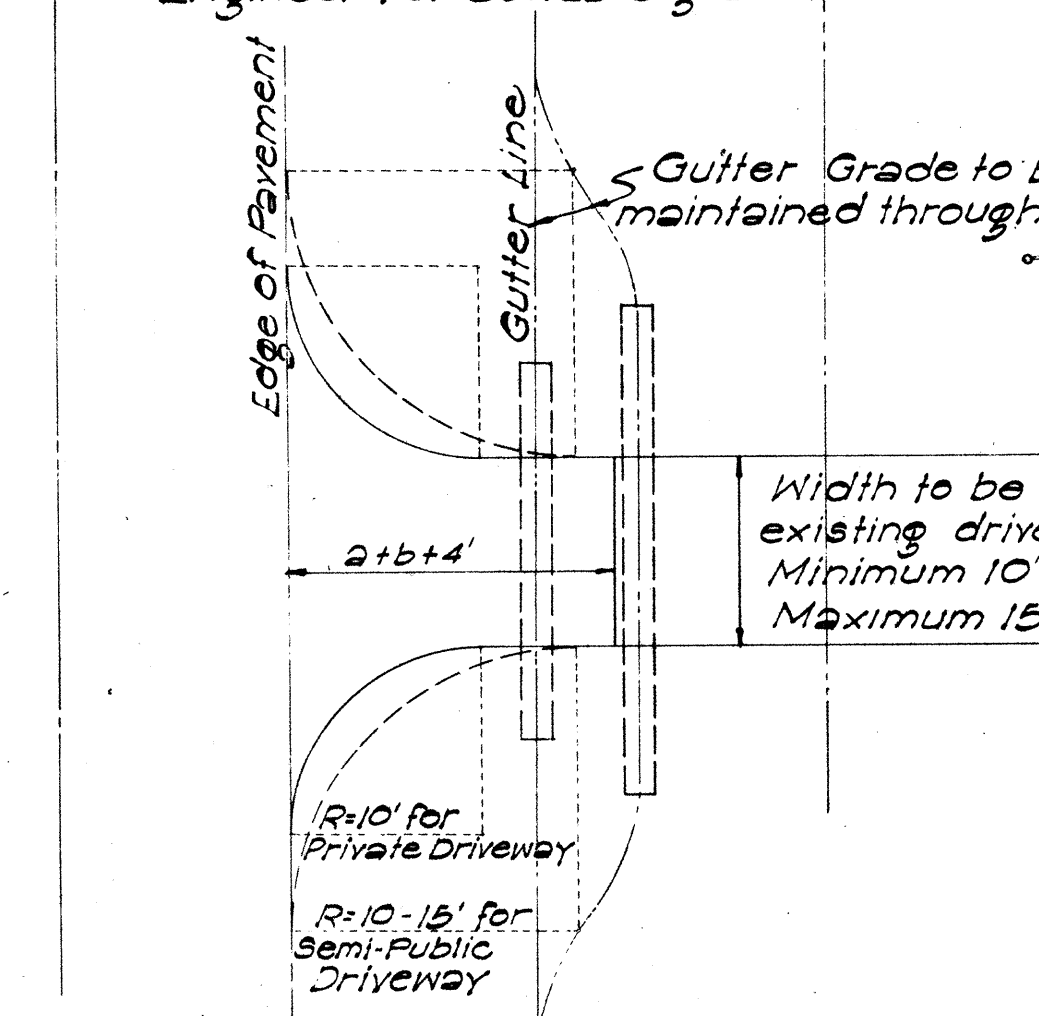
NOTE: Any ratio curve in this tabulation is designated by the maximum offset and its tangent distance



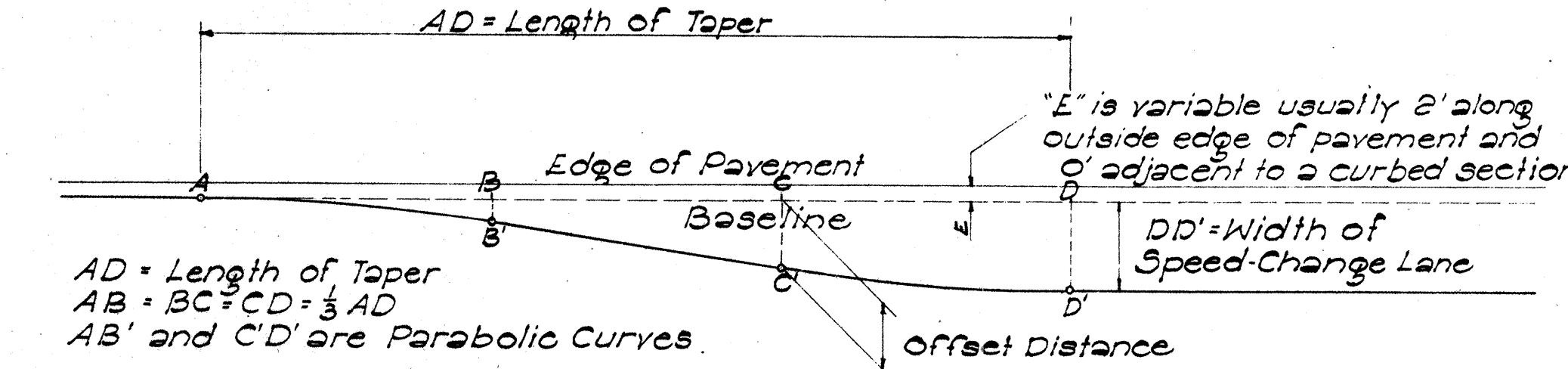
CUT SECTIONS
In deep cut sections when conditions are improper for shallow cut section. Avoid this if possible as use of culvert is undesirable.
In shallow cut sections when it is determined that vehicles will clear. To be rounded at no particular radius.



FILL SECTION
a = Shoulder width
b = Gutter width
c = Distance determined by Engineer for suitable grade.



PRIVATE AND SEMI-PUBLIC DRIVEWAYS
SCALE: 1" = 10'-0"

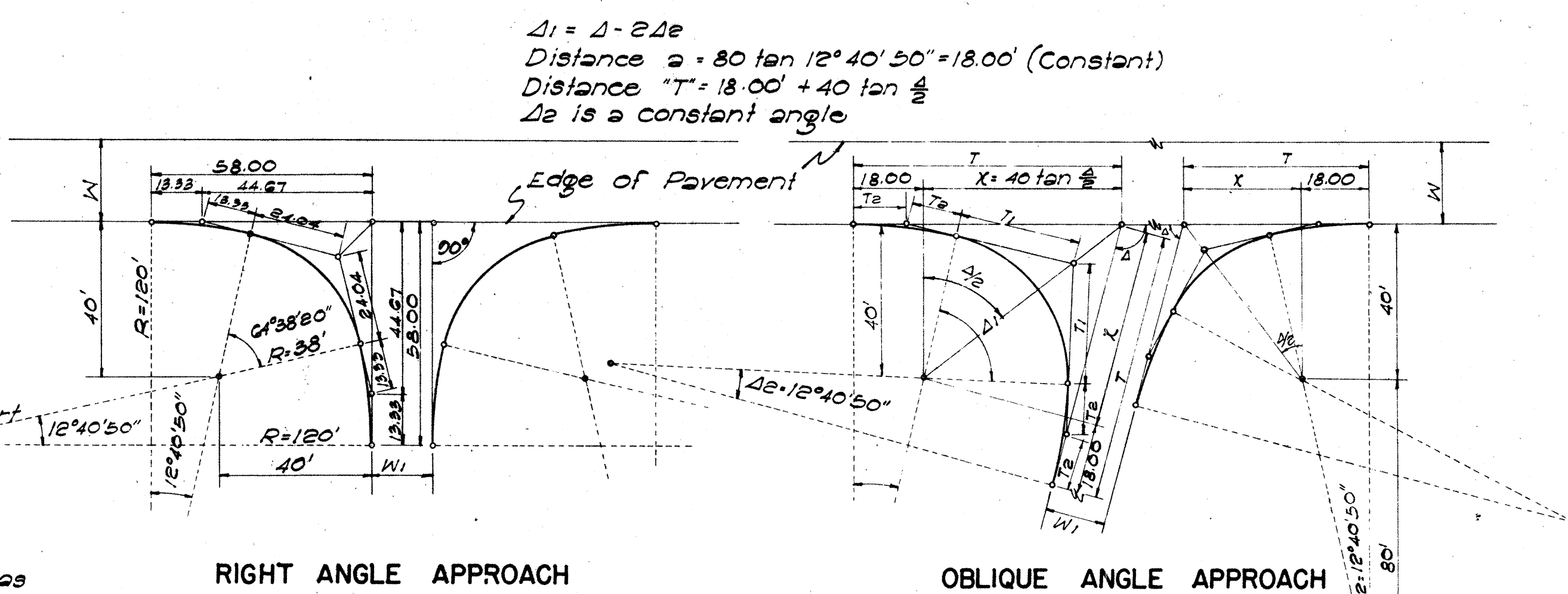


TAPER FOR SPEED-CHANGE LANES
SCALE: 1" = 20'-0"

FOLLOWING TABLE GIVES OFFSETS FROM BASELINE PARALLEL TO EDGE OF PAVEMENT AT INTERVALS MEASURED FROM POINT 'A'. ADD 'E' FOR MEASUREMENT FROM EDGE OF PAV'T

OFFSET FROM BASELINE (Ft.)	LENGTH OF TAPER (Feet) = AD											
	00	120	150	180	210	240	270	300	330	360	390	420
DD+10 DD+11 DD+12	0	0	0	0	0	0	0	0	0	0	0	0
0.10	0.17	0.10	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30
0.20	0.60	0.75	15	20	25	30	35	40	45	50	55	60
1.41	1.55	1.60	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90
2.50	2.75	3.00	30	40	50	60	70	80	90	100	110	120
3.00	3.50	4.00	45	60	75	90	105	120	135	150	165	180
3.50	4.25	5.00	60	80	100	120	140	160	180	200	220	240
4.00	4.75	5.50	75	100	125	150	175	200	225	250	275	300
4.50	5.25	6.00	90	120	150	180	210	240	270	300	330	360
5.00	5.75	6.50	105	140	175	210	245	280	315	350	385	420
5.50	6.25	7.00	120	160	200	240	280	320	360	400	440	480
6.00	6.75	7.50	135	180	225	270	315	360	405	450	495	540
6.50	7.25	8.00	150	200	250	300	350	400	450	500	550	600
7.00	7.75	8.50	165	220	275	330	385	440	495	550	605	660
7.50	8.25	9.00	180	240	300	360	420	480	540	600	660	720
8.00	8.75	9.50	195	260	330	400	470	540	610	680	750	820
8.50	9.25	10.00	210	280	360	440	520	600	680	760	840	920
9.00	9.75	10.50	225	300	390	480	570	660	750	840	930	1020
9.50	10.25	11.00	240	320	420	520	620	720	820	920	1020	1120
10.00	10.75	11.50	255	340	450	560	670	780	890	1000	1110	1220

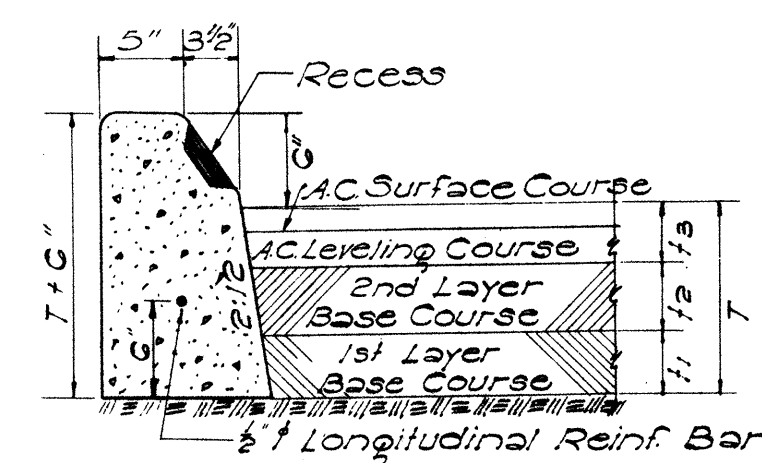
* Where edge of pavement is a curve, neither Baseline nor Taper between B' and C' will be a tangent. Use proportional offset from B' to C'.



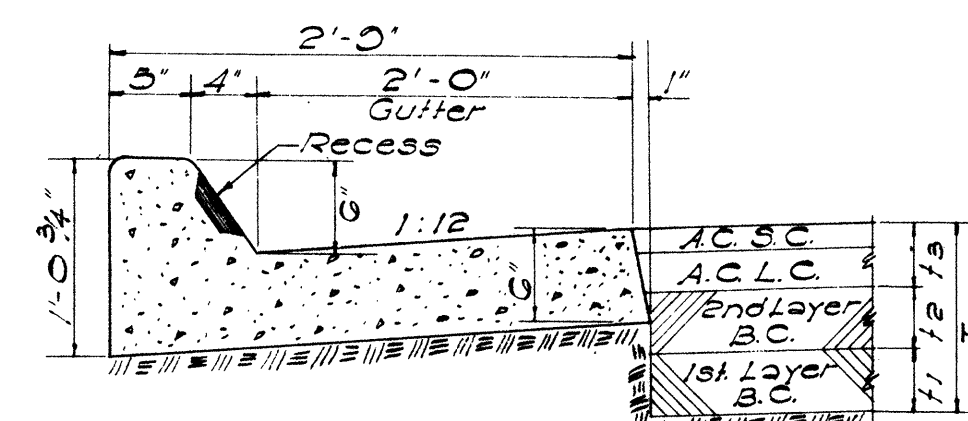
SIDE ROAD APPROACHES
THREE CENTERED COMPOUND CURVE
SCALE: 1" = 30'-0"

APPROVED: DATE 6-22-53
Territorial Highway Engineer

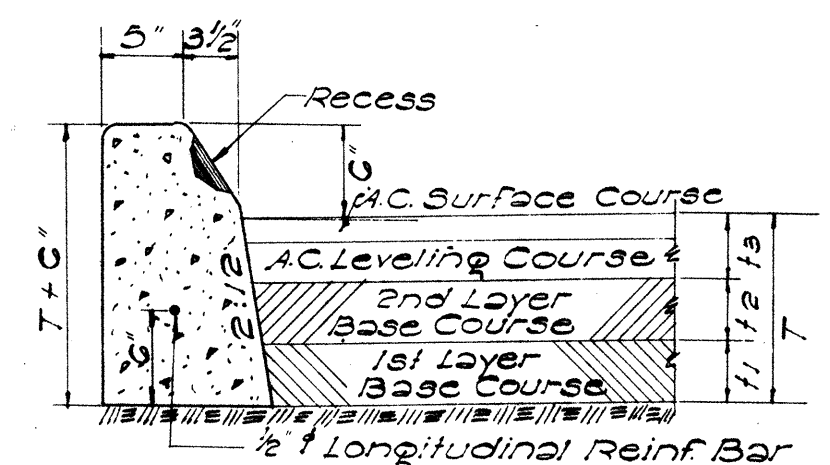
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
STANDARD DETAILS
DRIVEWAYS, SPEED-CHANGE LANES,
MEDIAN STRIPS & APPROACHES
SCALES AS NOTED



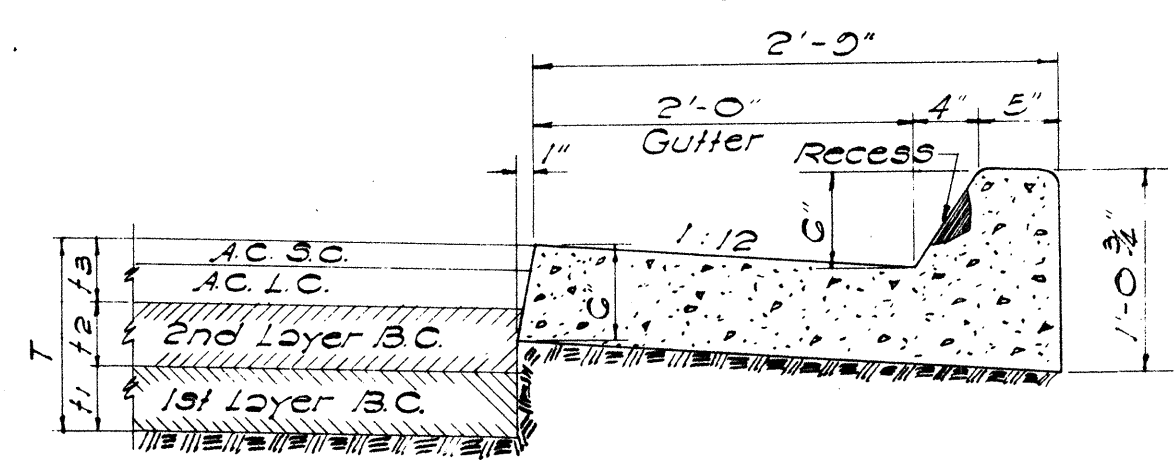
TYPE "A" & "B" CURB
SCALE: 1" = 1'-0"



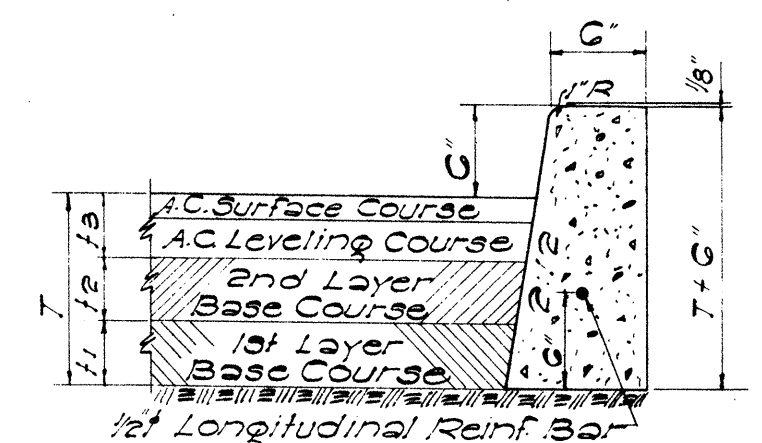
TYPE "AG" & "BG" CURB & GUTTER
SCALE: 1" = 1'-0"



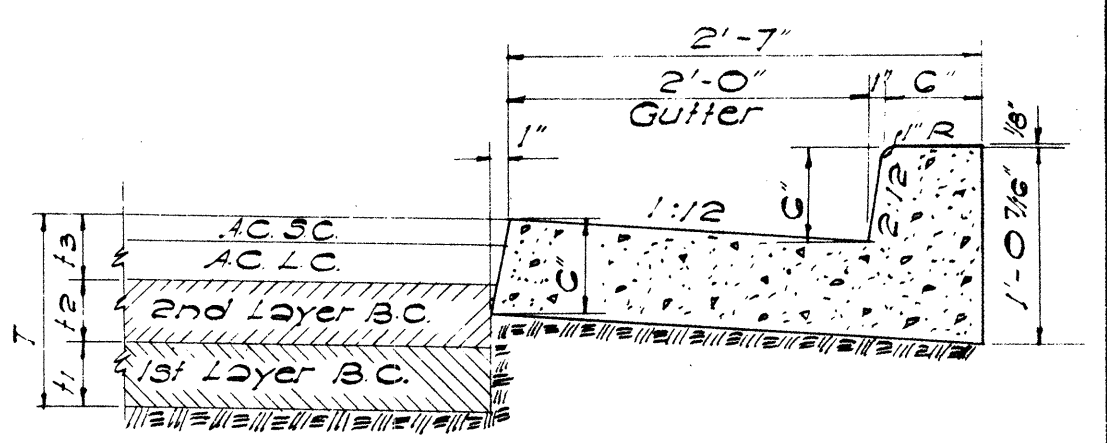
TYPE "C" CURB
SCALE: 1" = 1'-0"



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

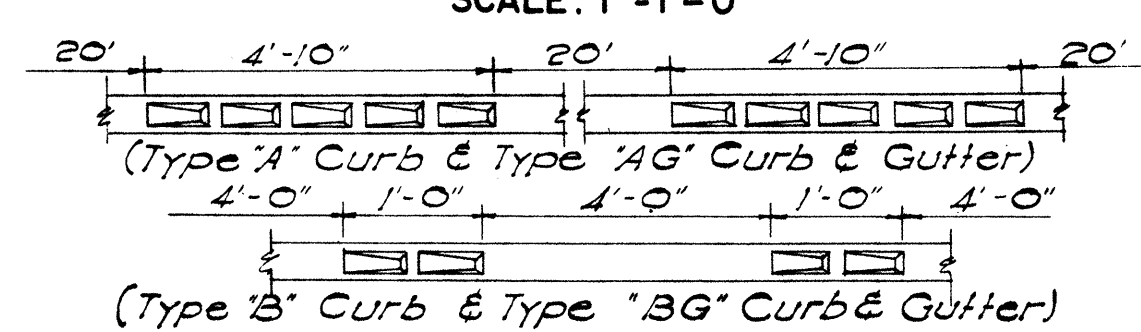


TYPE "D" CURB
SCALE: 1" = 1'-0"

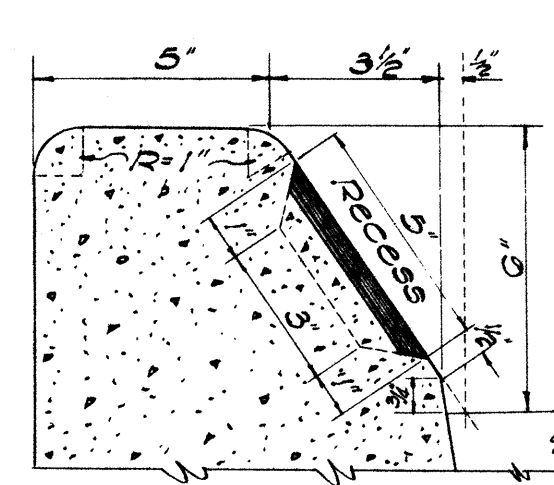


TYPE "DG" CURB & GUTTER
SCALE: 1" = 1'-0"

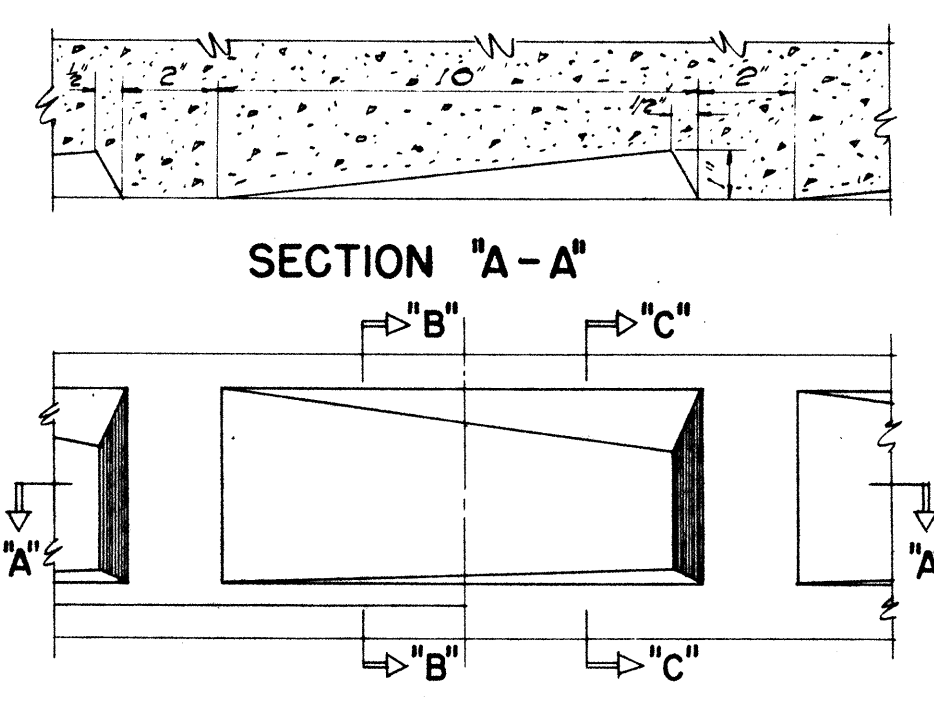
General Note Covering All Types of Curbs:
Occasionally curb rests on first layer of base course. See typical sections.



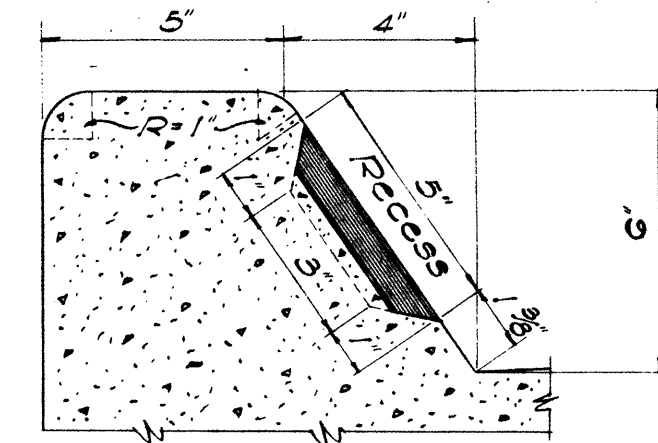
TYPE AND SPACING OF RECESSES



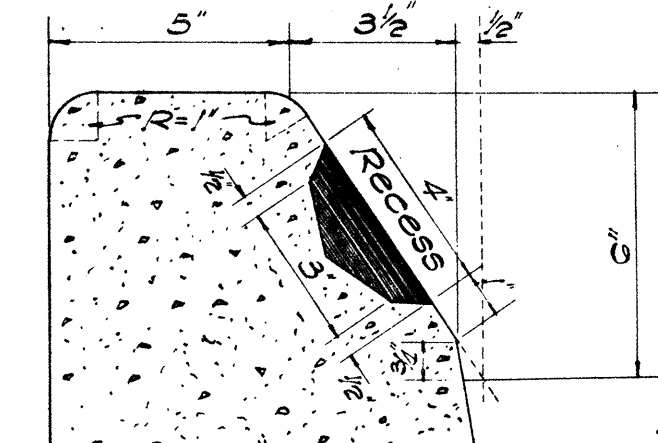
SECTION "B-B"
TYPE "A" & "B" CURB



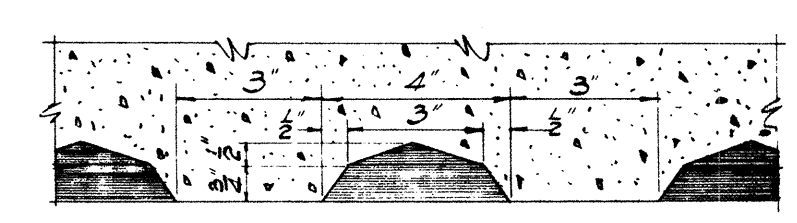
ELEVATION
SCALE: 3" = 1'-0"



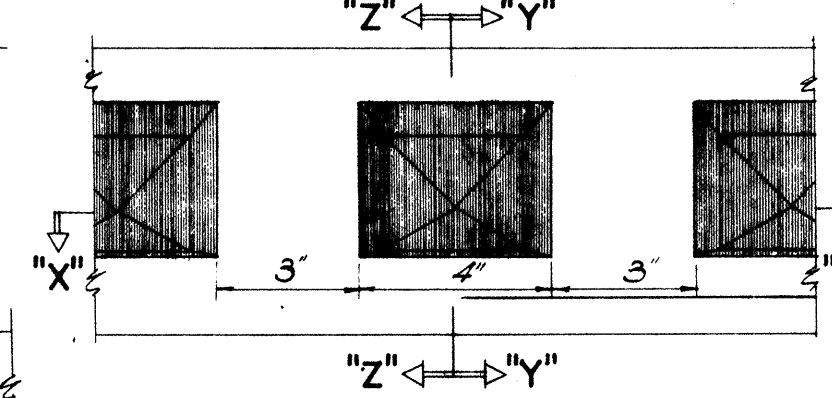
SECTION "C-C"
TYPE "AG" & "BG" CURB



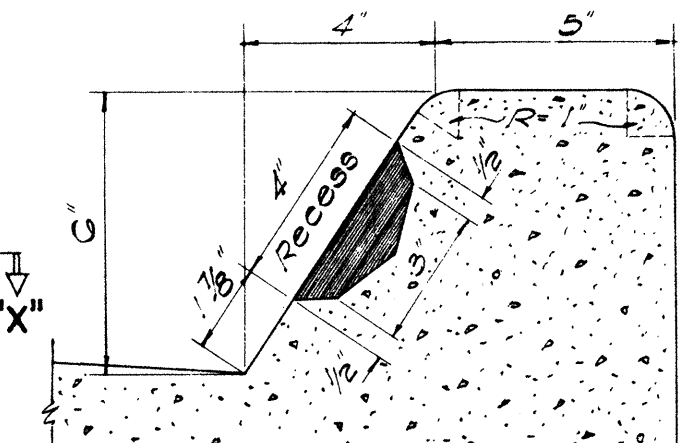
SECTION "Y-Y"
TYPE "C" CURB



SECTION "X-X"

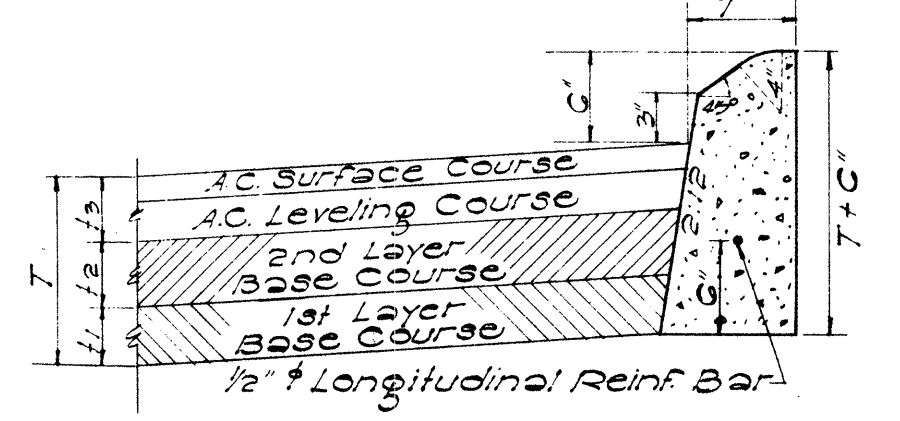


ELEVATION
SCALE: 3" = 1'-0"



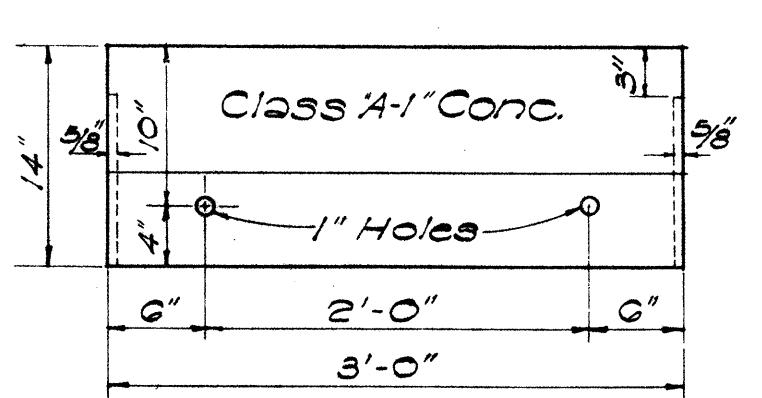
SECTION "Z-Z"
TYPE "CG" CURB

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.

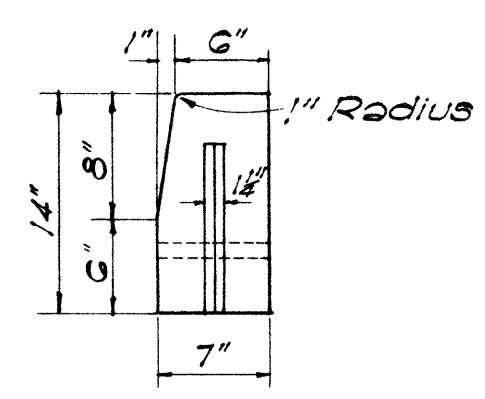


TYPE "F" CURB
SCALE: 1" = 1'-0"

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



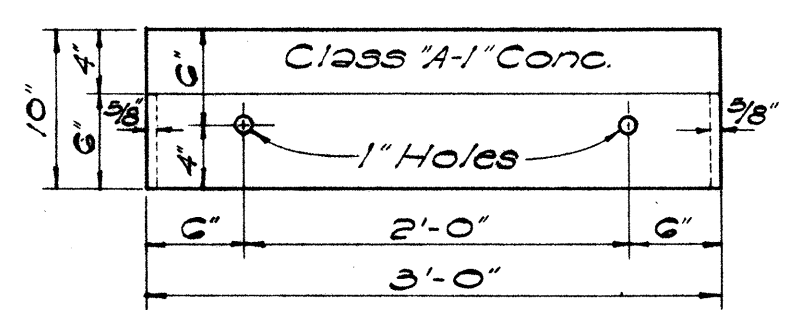
FRONT ELEV.



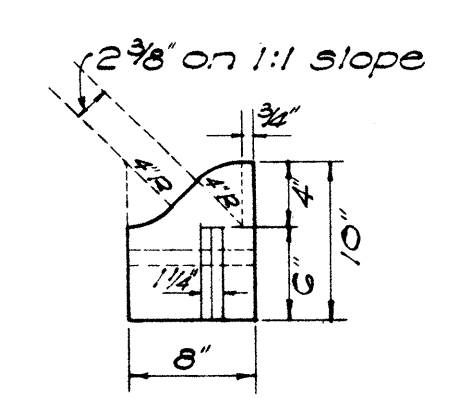
END ELEV.

PRECAST CONC. CURB

SCALE: 1" = 1'-0"



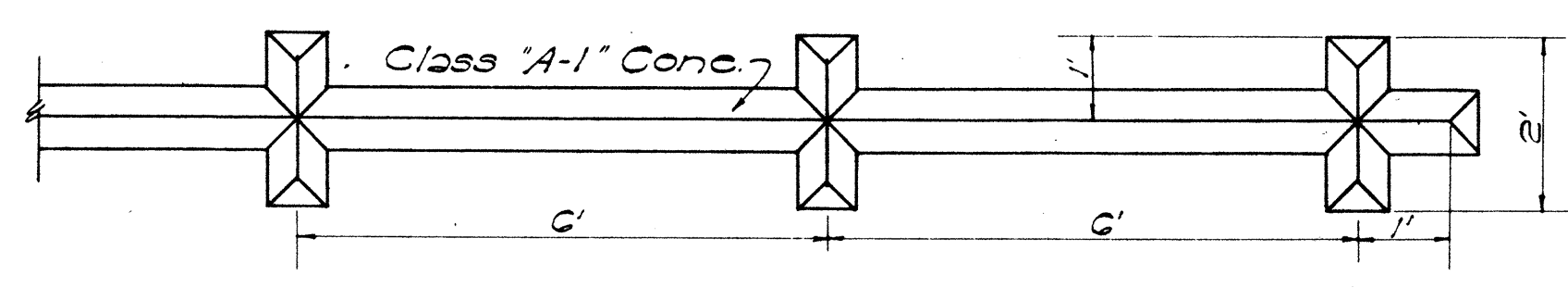
FRONT ELEV.



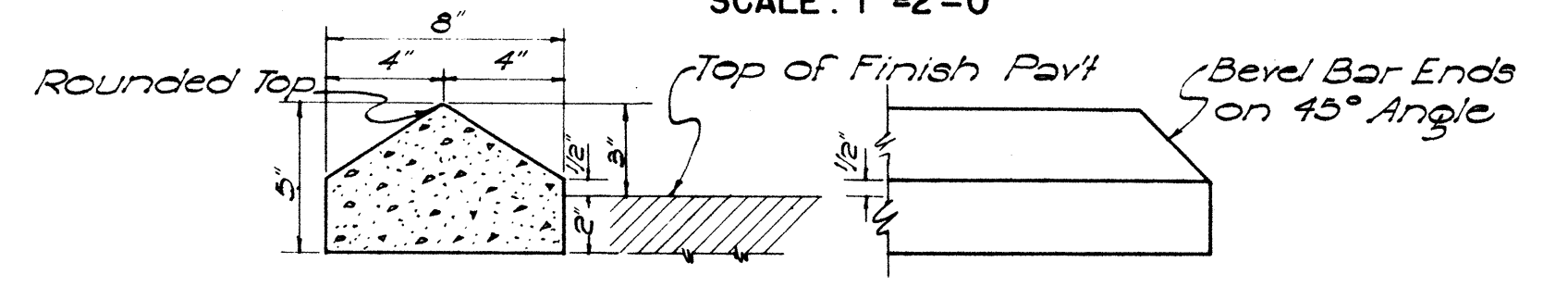
END ELEV.

PRECAST CONC. ROLL CURB

SCALE: 1" = 1'-0"

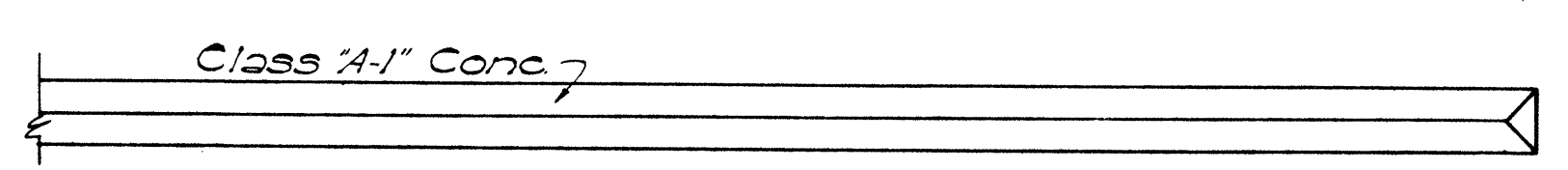


PLAN
SCALE: 1" = 2'-0"



SECTION
RAISED TRAFFIC BARS

SCALE: 1" = 6"



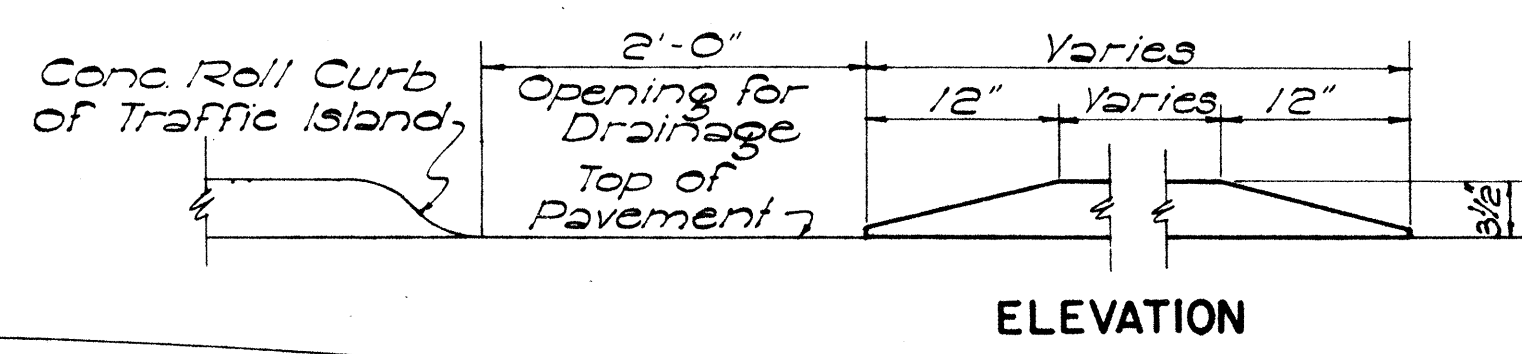
PLAN

RAISED JIGGLE BARS

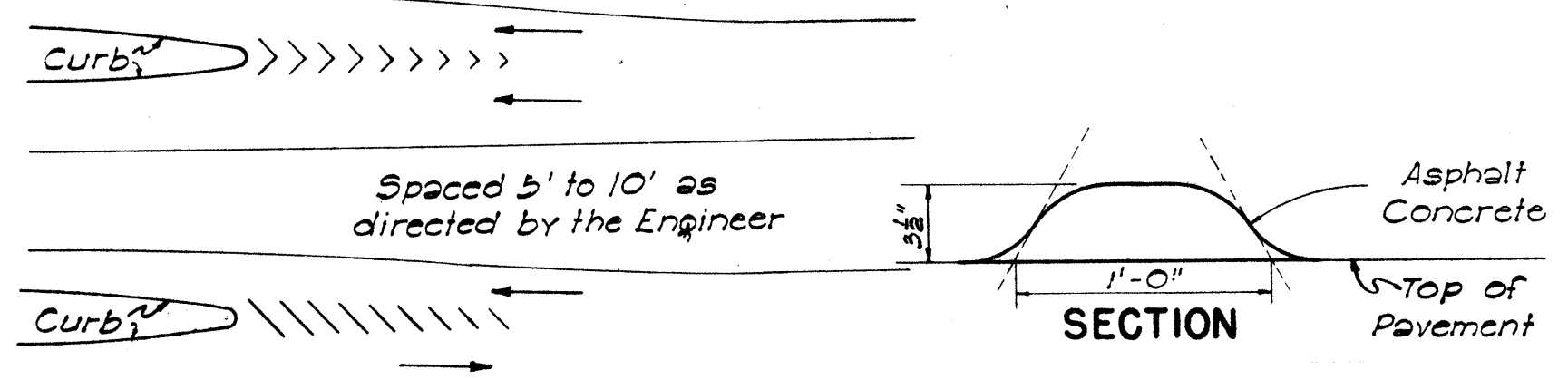
SCALE: 1" = 2'-0"

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

NOTE:
Paint all exposed surfaces of bars with beaded white traffic lacquer.

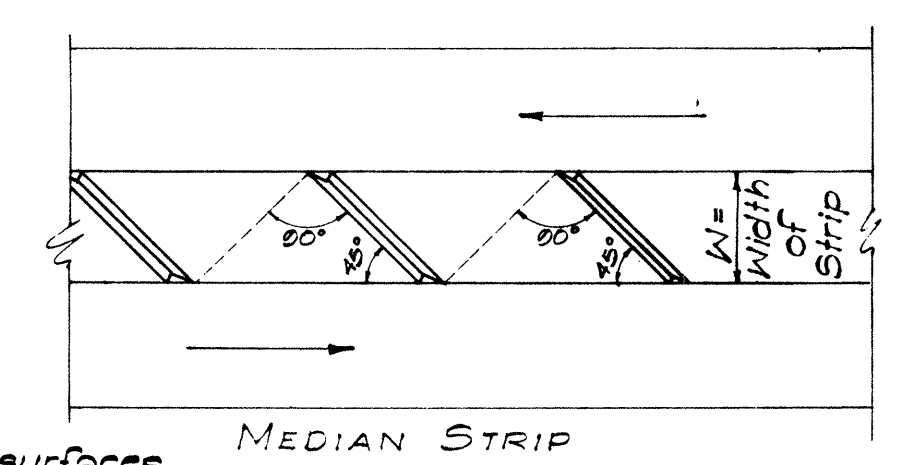


ELEVATION

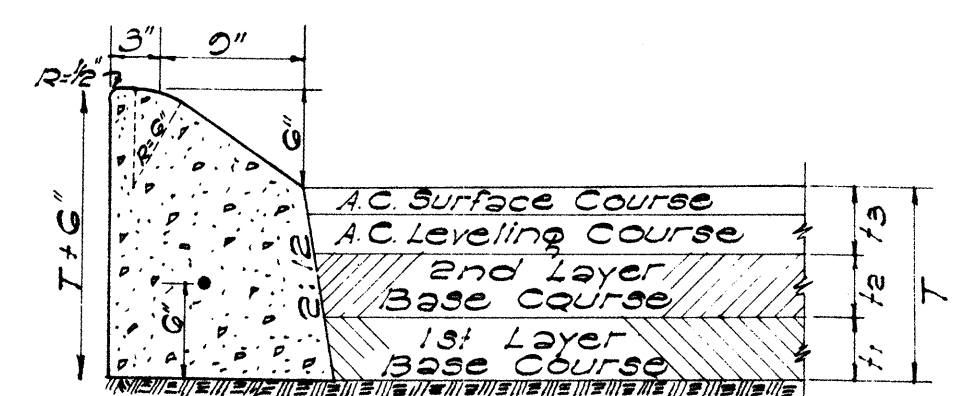


SECTION

A.C. ROLL CURB
NOT TO SCALE

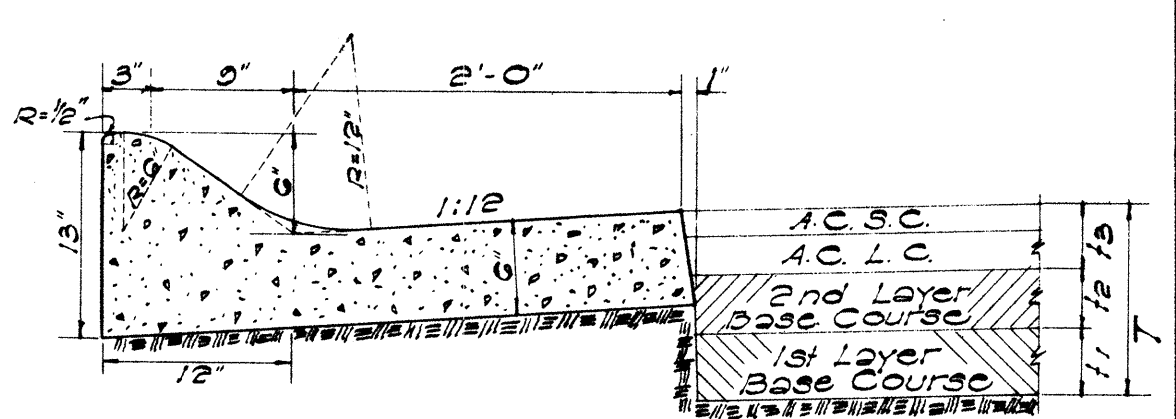


LAYOUT OF JIGGLE BARS
NOT TO SCALE



TYPE "E" CAST-IN-PLACE
CONCRETE CURB

SCALE: 1" = 1'-0"



TYPE "EG" CAST-IN-PLACE
CONC. CURB & GUTTER

SCALE: 1" = 1'-0"

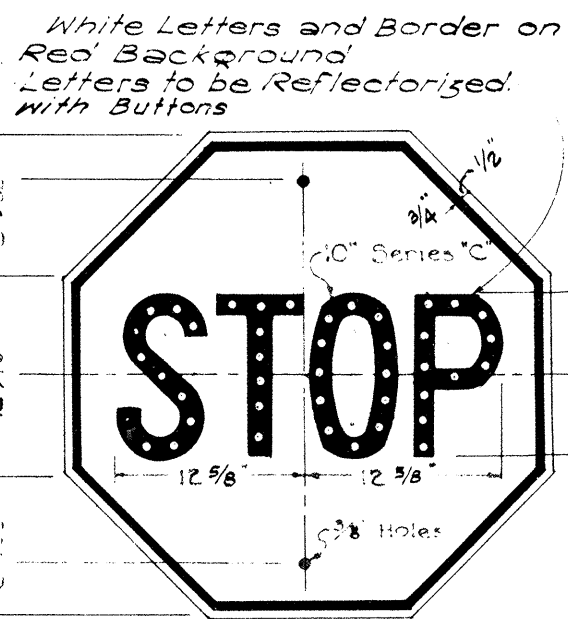
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
STANDARD DETAILS
CONCRETE CURBS,
CONCRETE CURBS & GUTTERS
SCALES AS NOTED

APPROVED: *Paul E. Hutter*
TERRITORIAL HIGHWAY ENGINEER

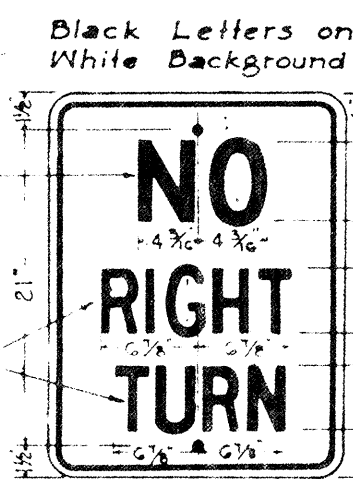
SHEET No 6 OF 8 SHEETS

5644.16

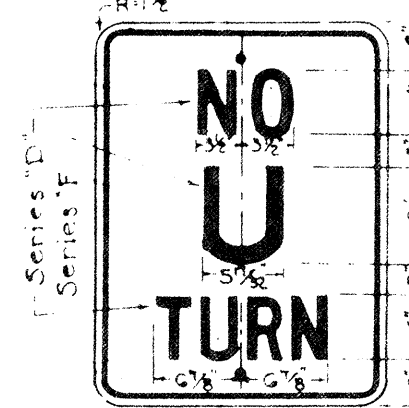
DATE: _____
DESIGNED BY: _____
CHECKED BY: _____
QUANTITIES BY: _____
NOTES: _____



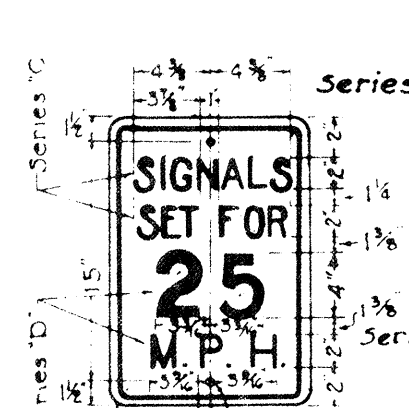
R-1
30" x 30"



R-6
18" x 24"



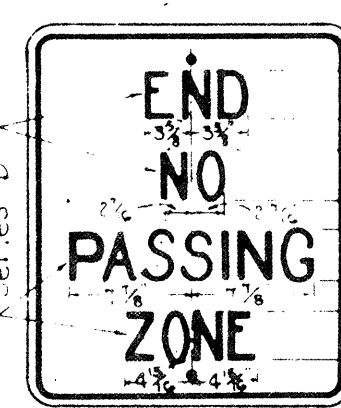
R-8
18" x 24"



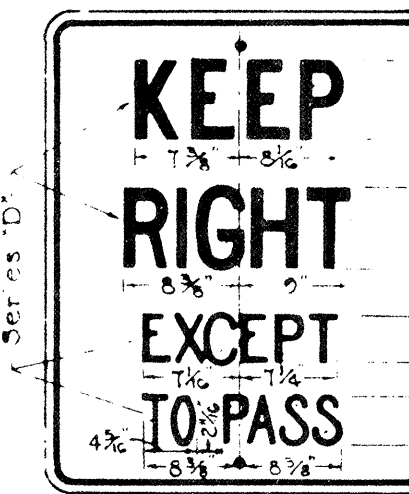
R-10
12" x 18"



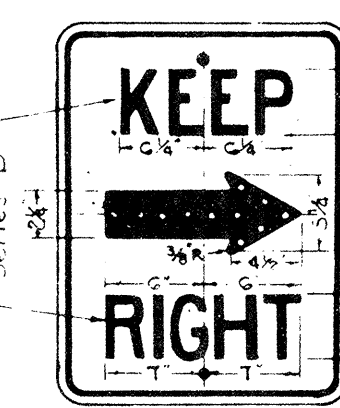
R-11
20" x 24"



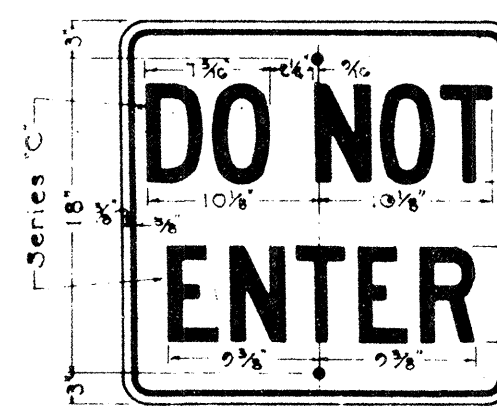
R-12
20" x 24"



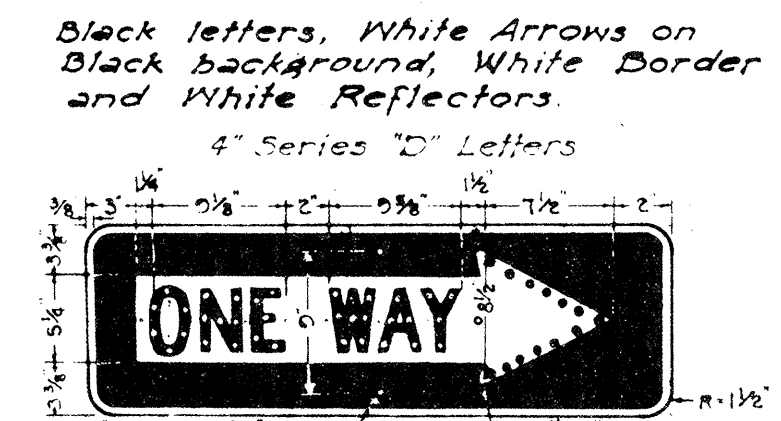
R-13
24" x 30"



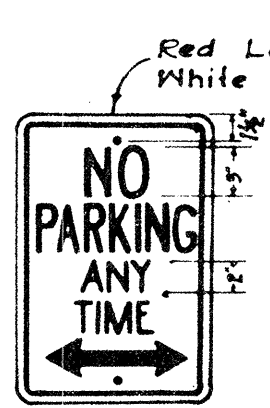
R-14
18" x 24"



R-15
24" x 24"



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



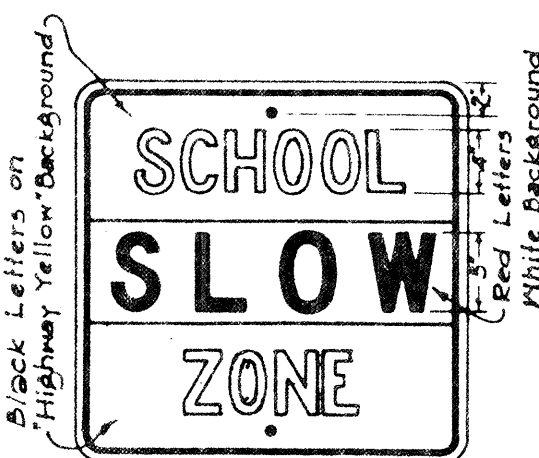
R-18
12" x 18"



R-26
12" x 18"



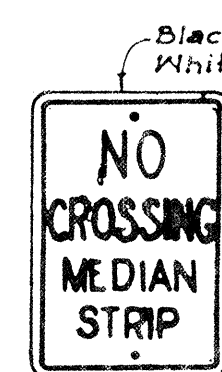
R-29
24" x 30"



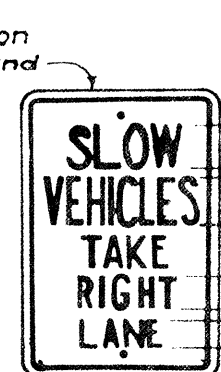
R-41-S
24" x 24"



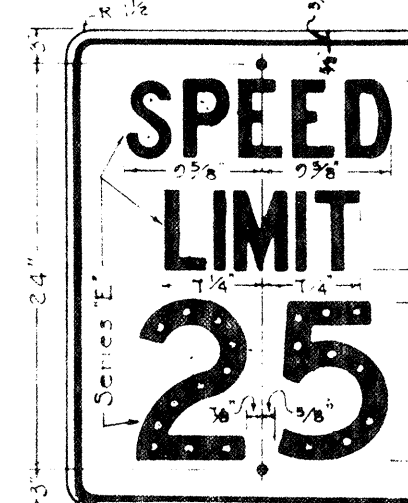
R-42-S
12" x 18"



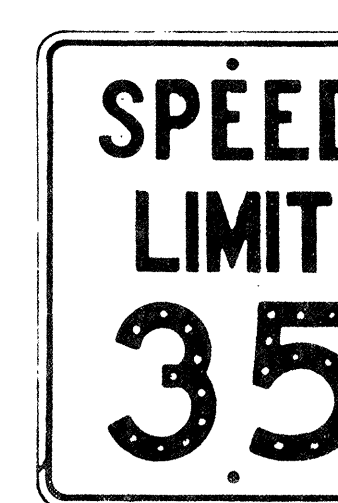
R-43-S
12" x 18"



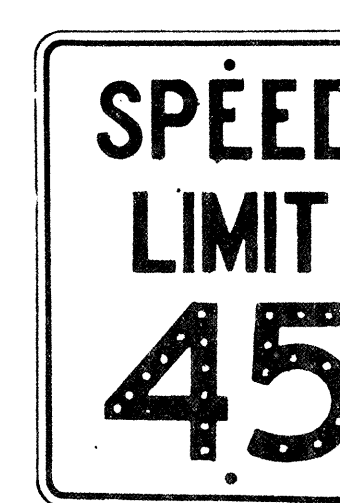
R-44-S
12" x 18"



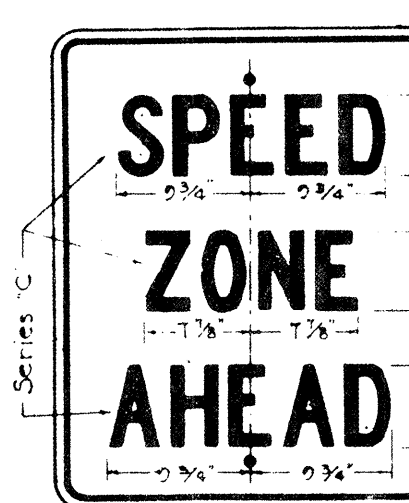
R-102-A
24" x 30"



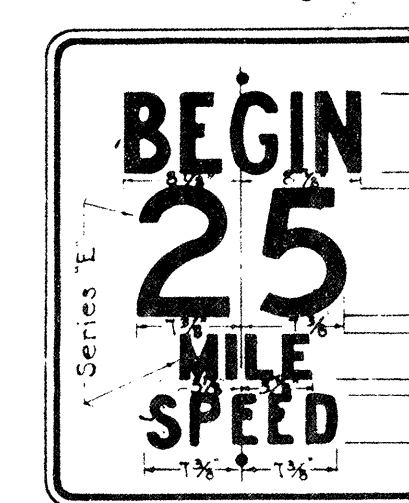
R-102-B
24" x 30"



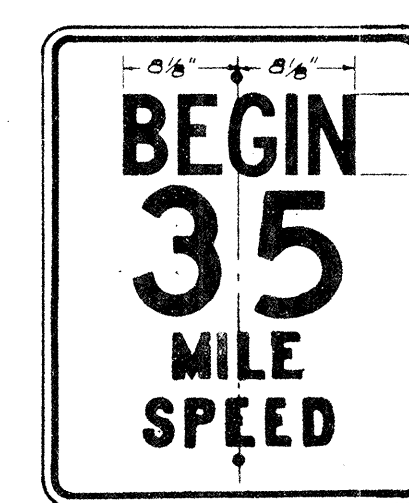
R-102-C
24" x 30"



R-104
24" x 30"



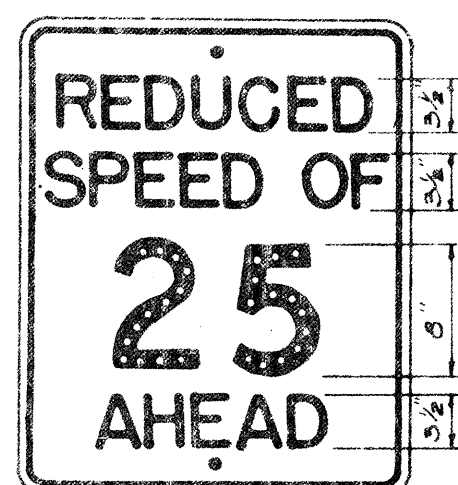
R-105-A
24" x 30"



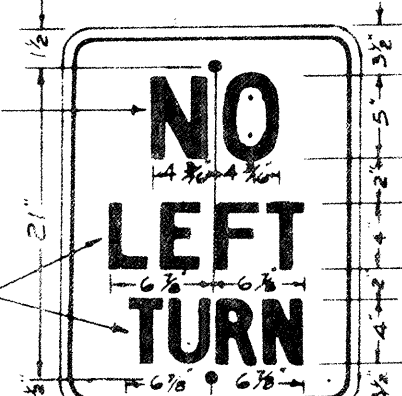
R-105-B
24" x 30"



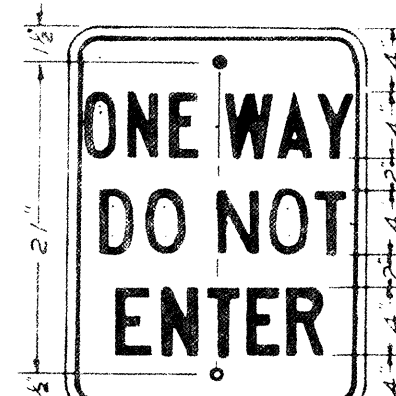
R-105-C
24" x 30"



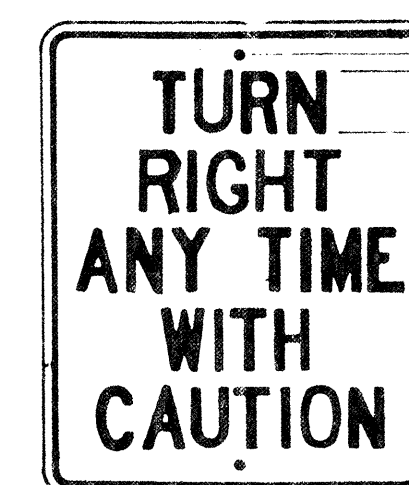
R-104-A
24" x 30"



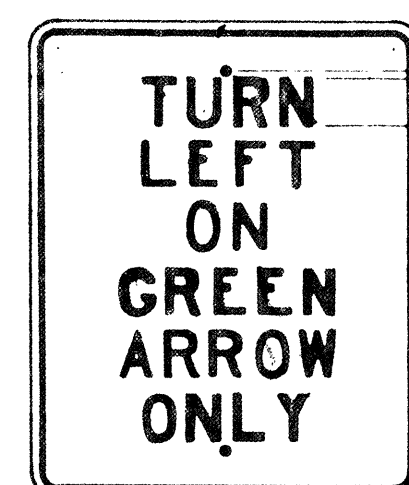
R-7
18" x 24"



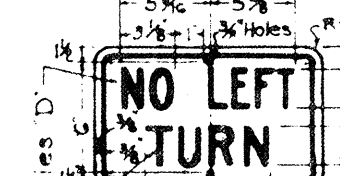
R-66
18" x 24"



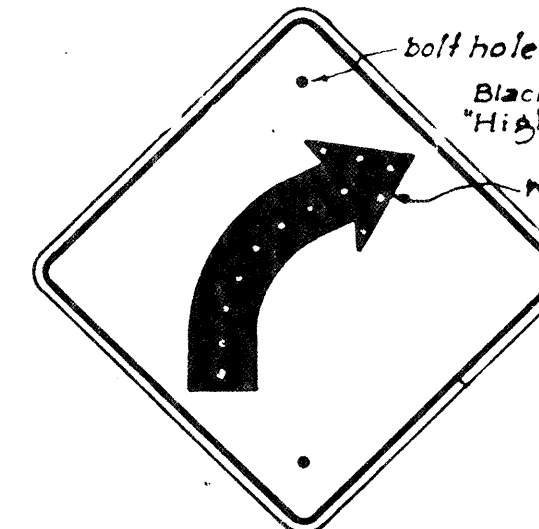
R-106
24" x 30"



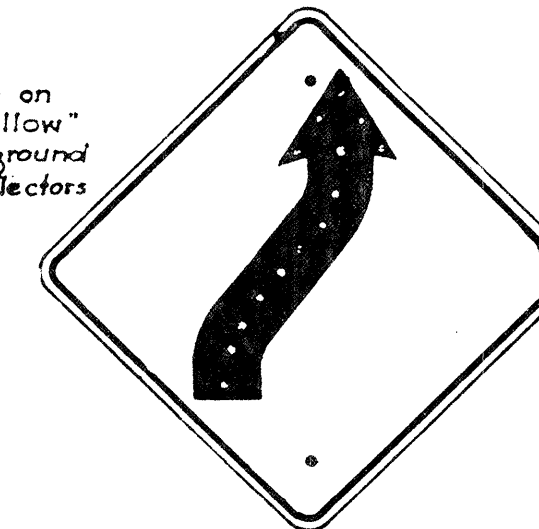
R-107-A
24" x 30"



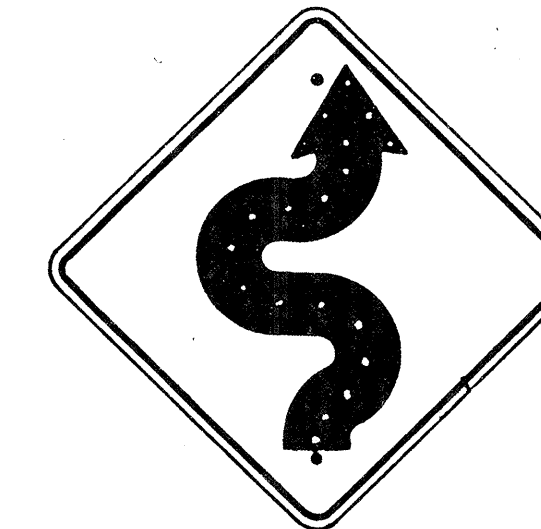
R-107
14" x 9"



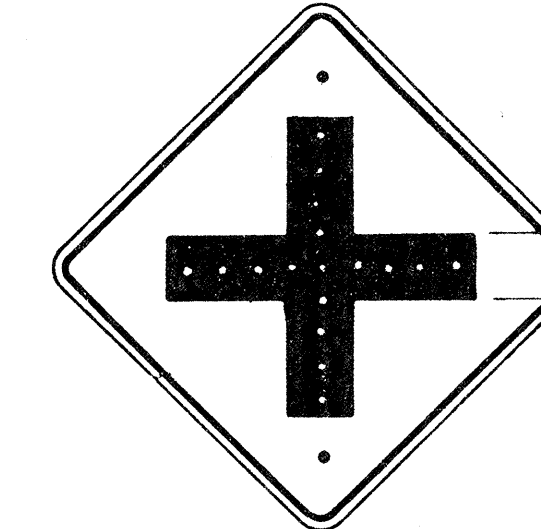
W-2-R
*W-2-L
24" x 24"



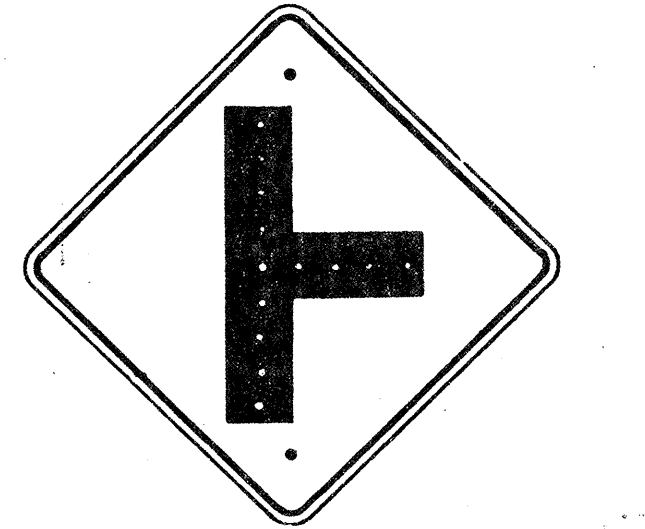
W-4-R
*W-4-L
24" x 24"



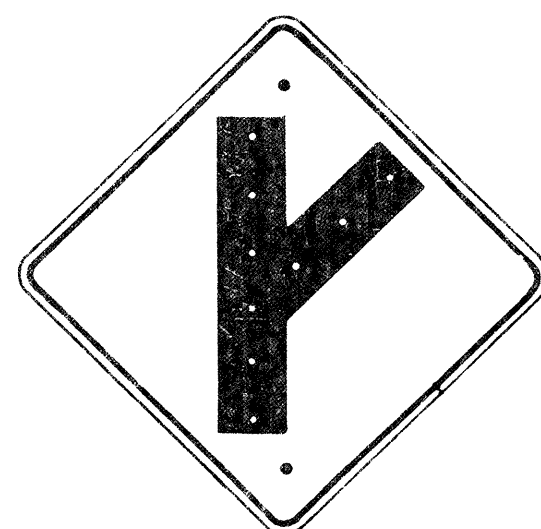
W-5-R
*W-5-L
24" x 24"



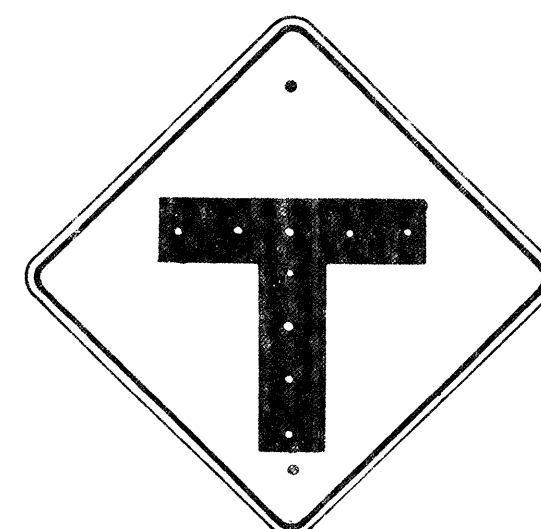
W-6
24" x 24"



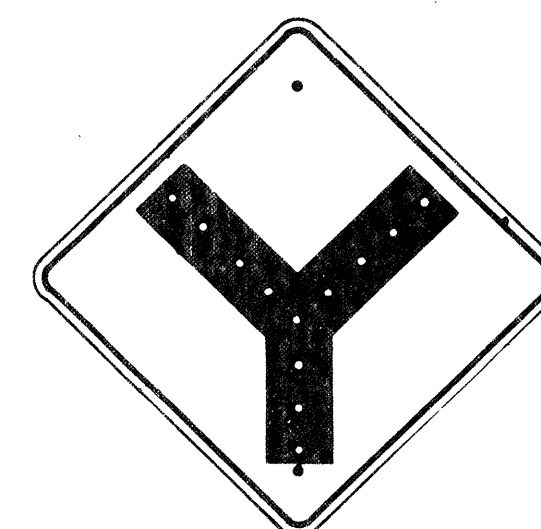
W-7
24" x 24"



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"



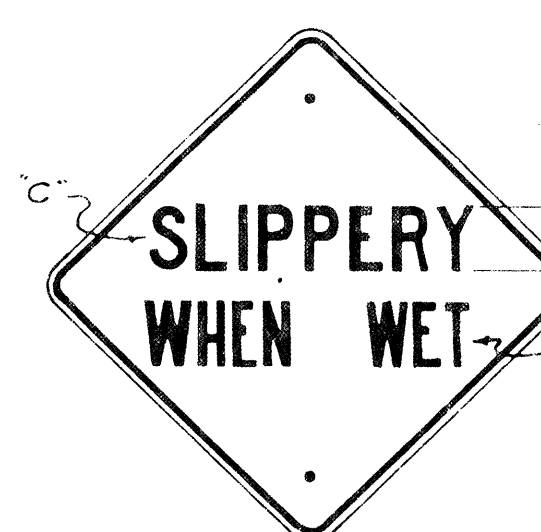
W-22
24" x 24"



W-24
30" x 30"



W-25
24" x 24"



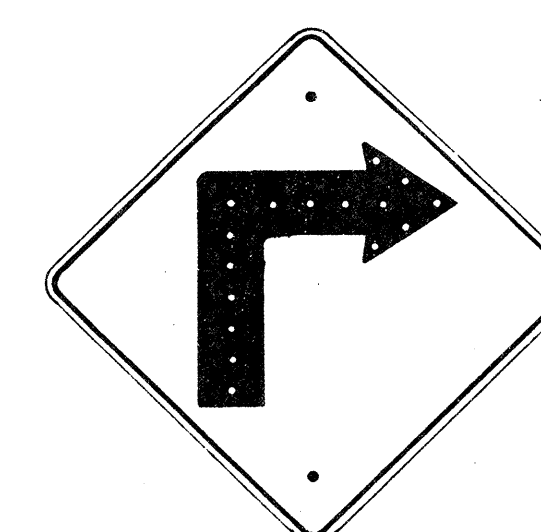
W-29
24" x 24"



W-59
24" x 24"



W-39
24" x 24"



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

Unless otherwise specified, all signs shall conform with requirements of "Manual on Uniform Traffic Control Devices for Streets and Highways."

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: *Ben E. Huth*
TERRITORIAL HIGHWAY ENGINEER

SHEET NO. 7 OF 8 SHEETS

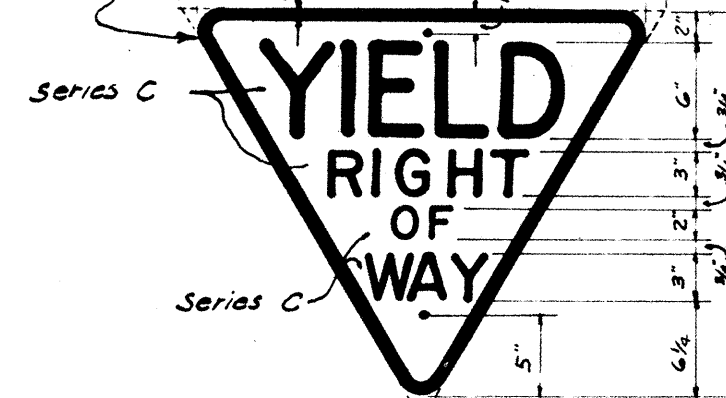
5644.17

has been Revised
12/10/54
6/8/55

6/25/54

DESIGNED BY
CHECKED BY
QUANTITIES CHECKED BY
DRAWN BY T. Tokunaga

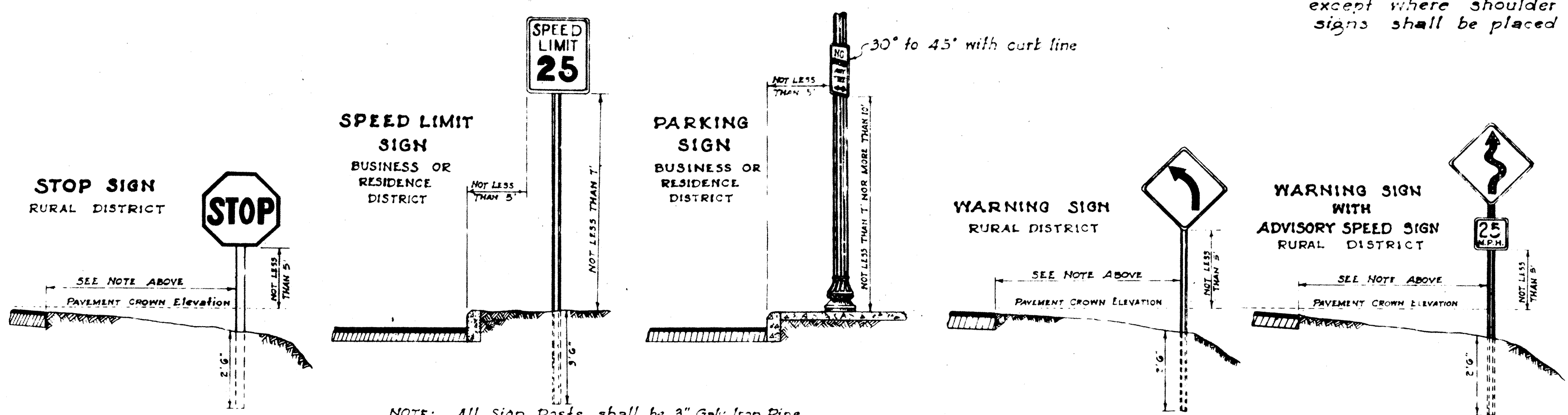
NOTE: For R-39, Black Border and Letters on Yellow Background.



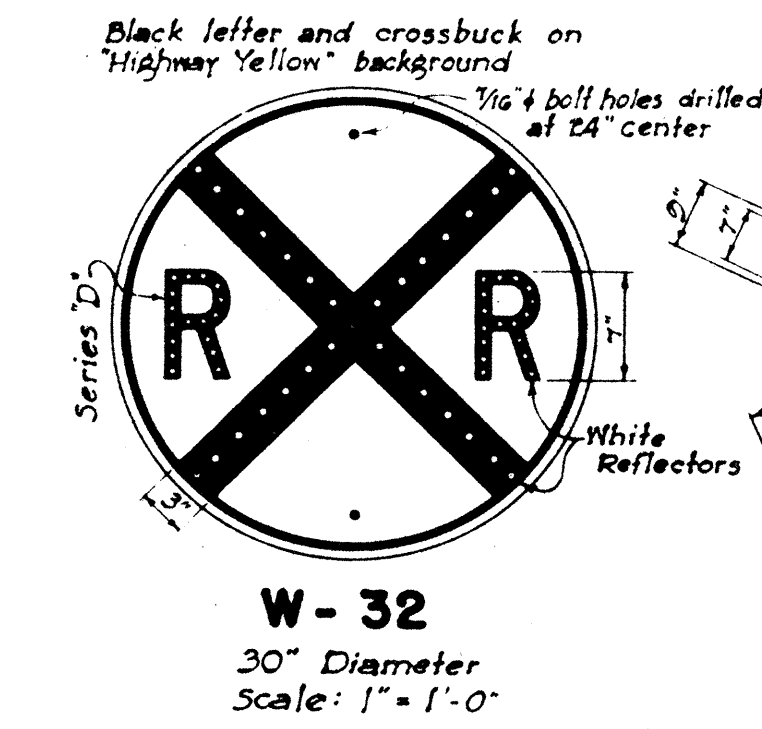
R-39
30" Equilateral Triangle
Scale: 1" = 1'-0"

NOTE: This marker shall be installed opposite and at the same height as marker W-42.

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.

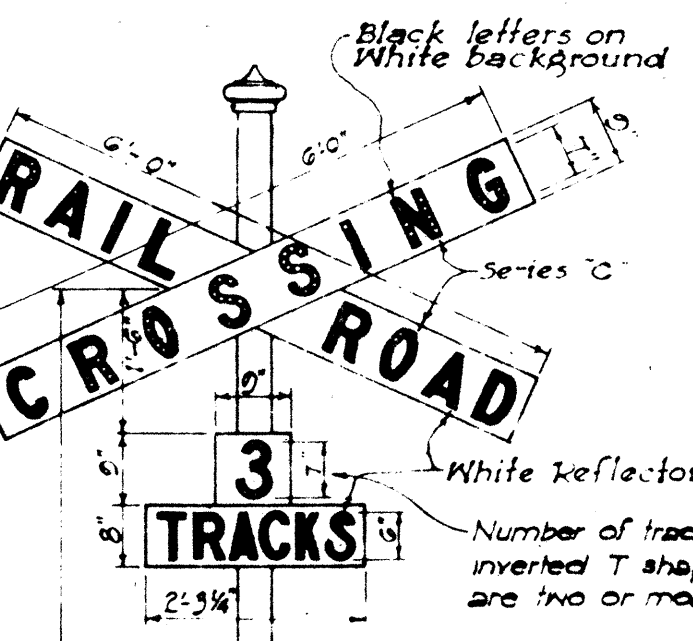


HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS
Scale: 1" = 3'-0"

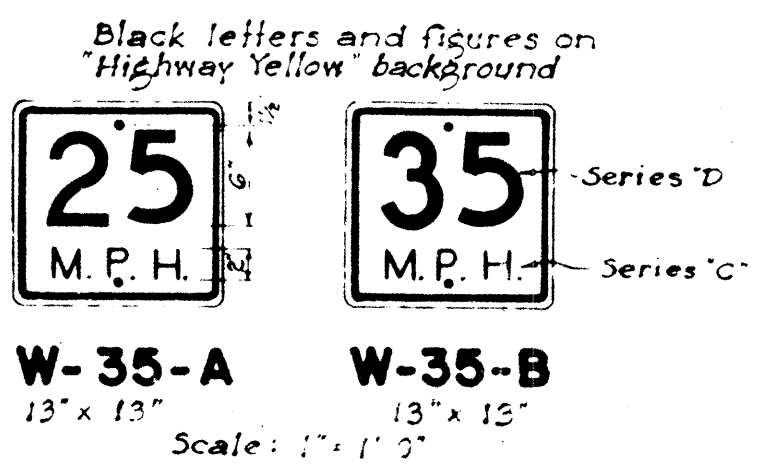


W-32
30" Diameter
Scale: 1" = 1'-0"

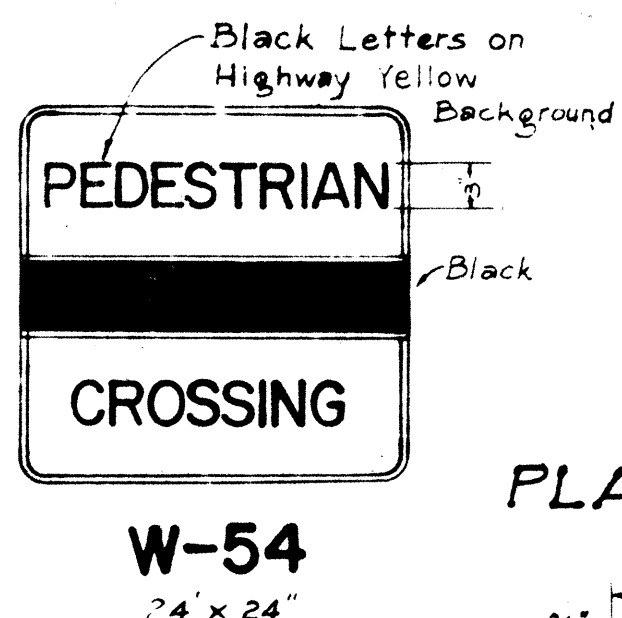
NOTE: This sign shall be placed from 300 to 500 feet from R.R. intersections in rural areas and a minimum distance of 100 feet from R.R. intersections in Residence or Business districts.



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

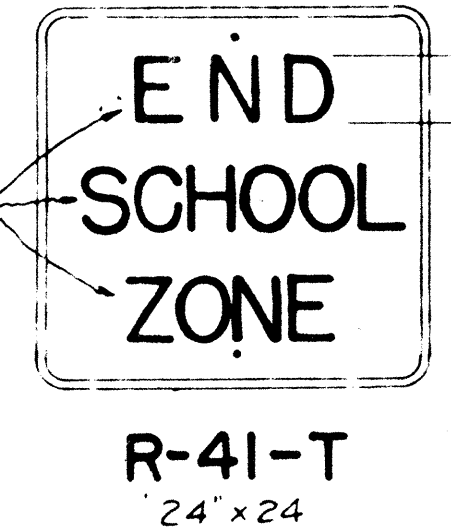


W-35-A W-35-B
13" x 13" Scale: 1" = 1'-0"

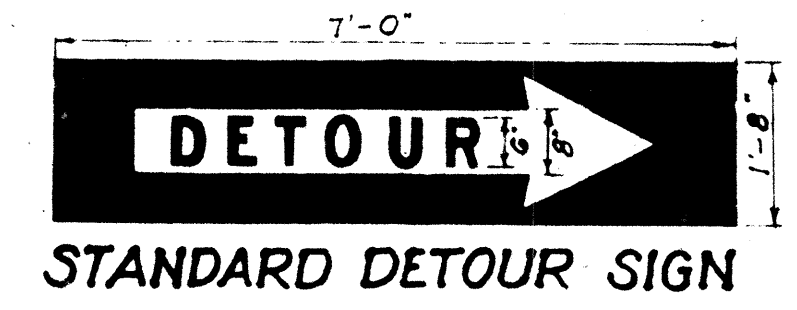


W-54
24" x 24"

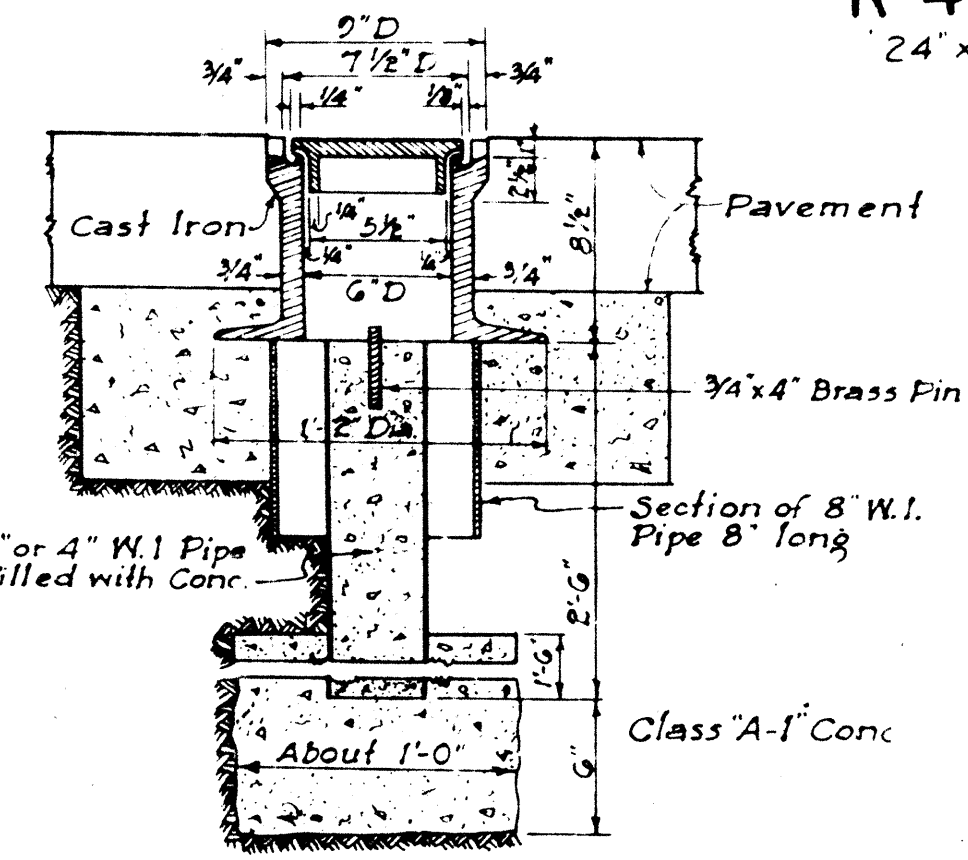
PLAN OF TOP



R-41-T
24" x 24"

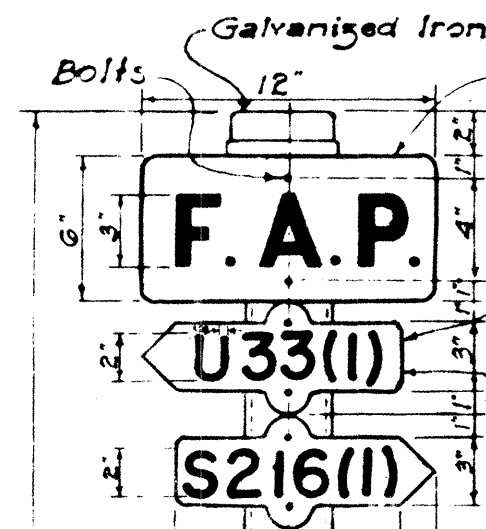


STANDARD DETOUR SIGN



STANDARD C & C STREET SURVEY MONUMENT

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



NOTE: This plate is always 'F.A.P.'

This shall include special letter prefixes as ordered by the Engineer.
Lettering as required.

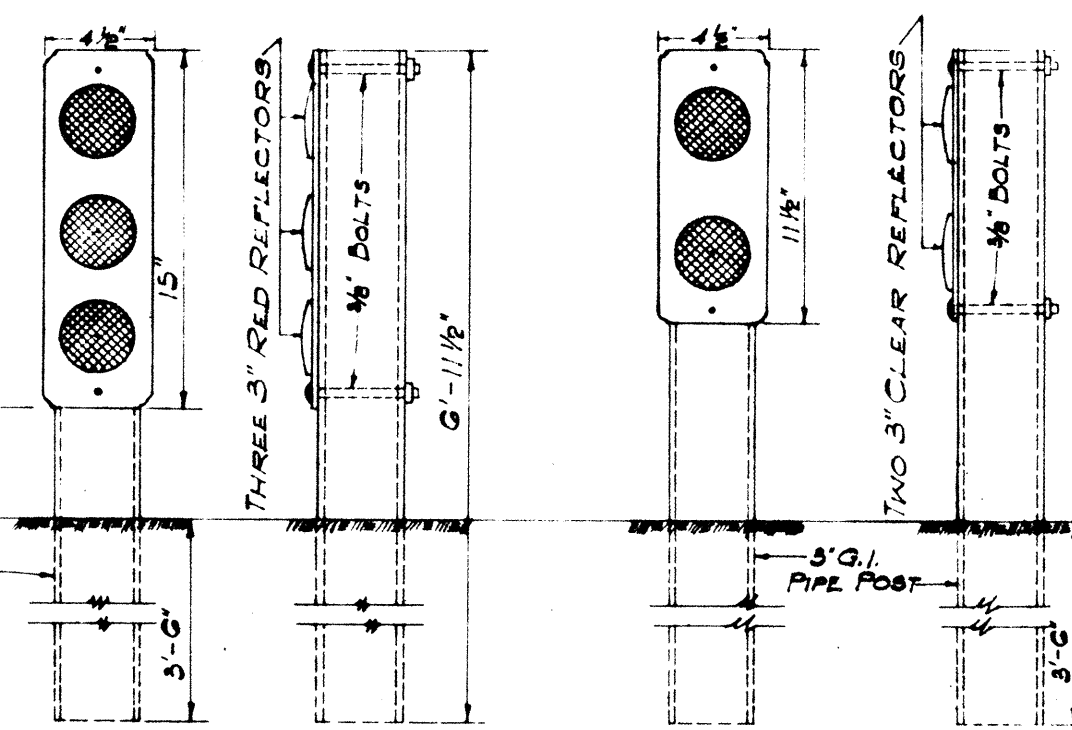
ARRANGEMENT OF MARKERS

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.

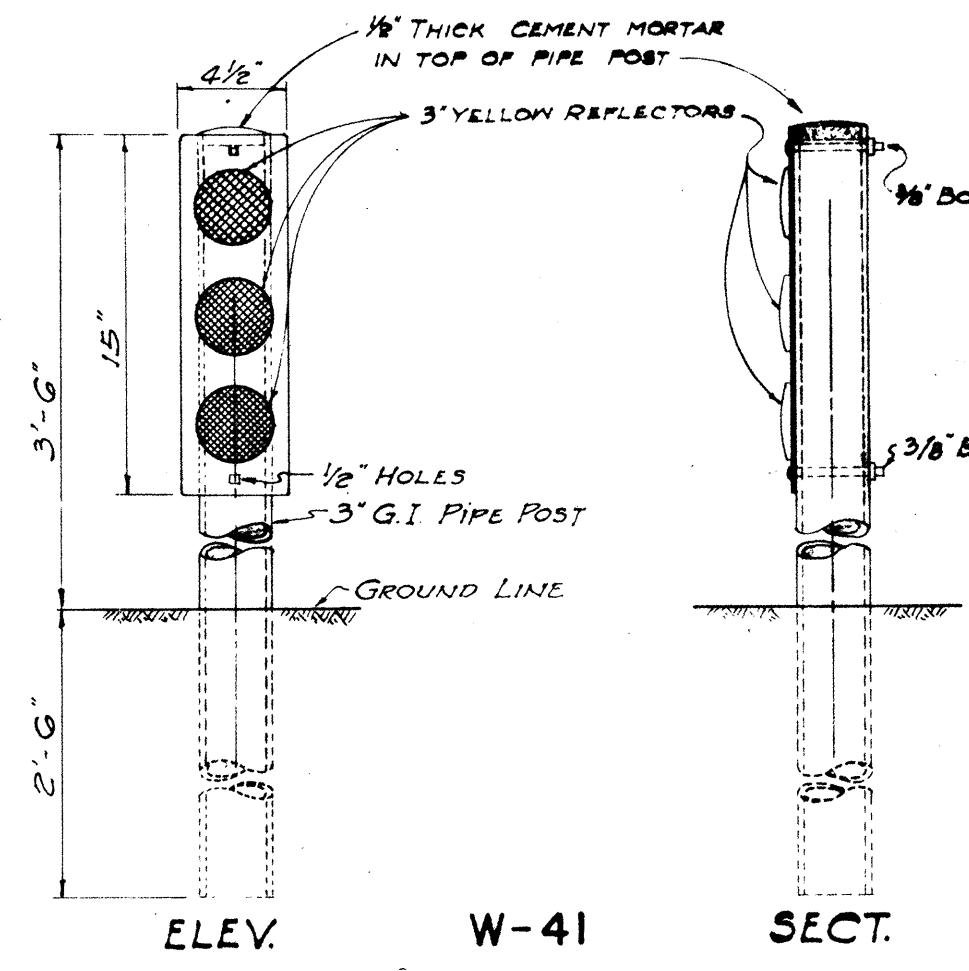
Markers and Number plates shall be No. 16 Ga. galvanized iron with 3/8 inch holes for fastening as shown on sketch. Markers and Number plates shall be given one coat of best Chromate primer and two coats of White Marine Enamel. Before painting they shall be given a wash of 8 ounces of Copper Sulphate in one gallon of water. The lettering shall be of two coats of Black Marine Enamel.

Markers and plates shall be fastened with 3/8 inch galvanized bolts and washers in addition to lead washers for both sides of each plate.



W-42

W-43

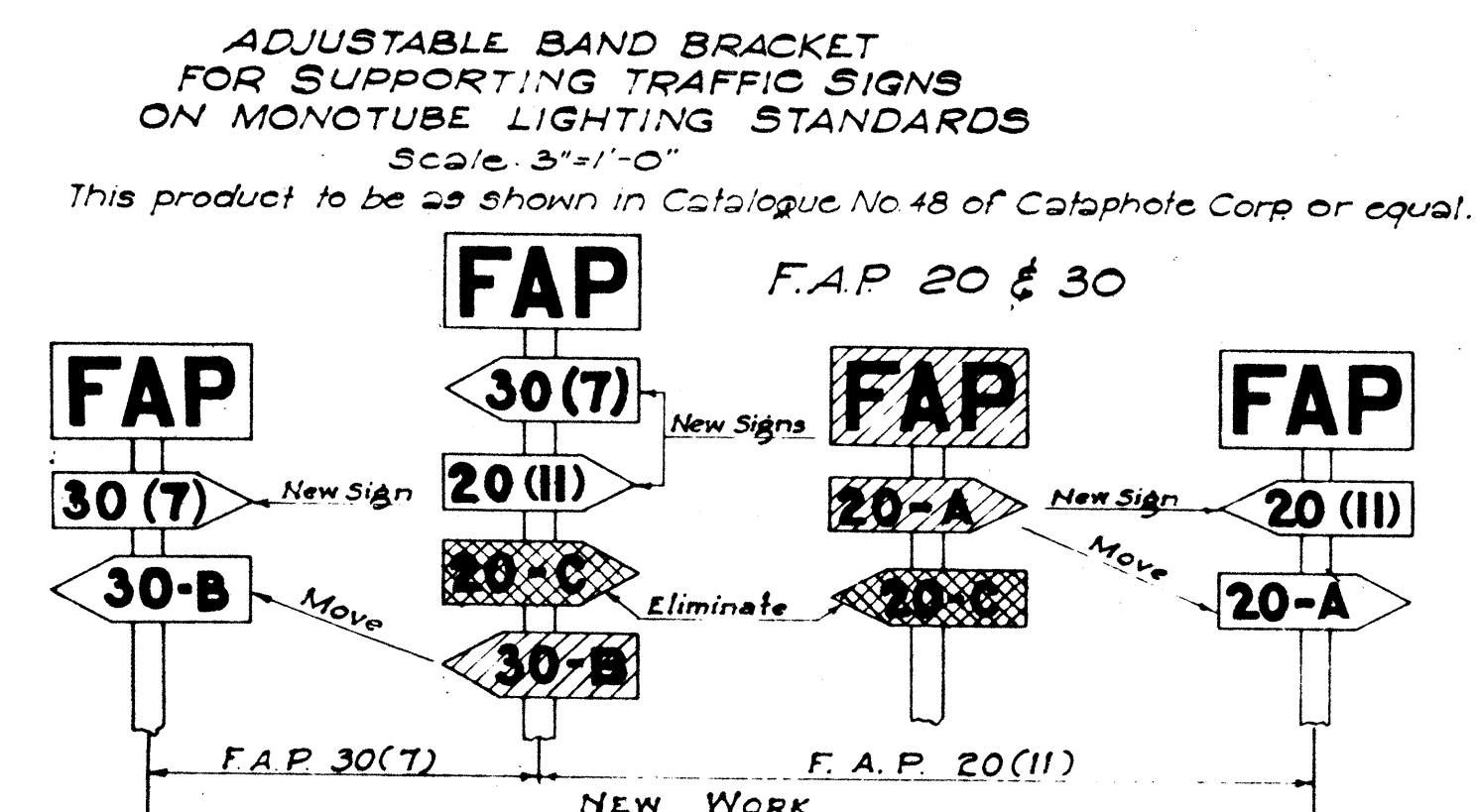


ELEV. W-41

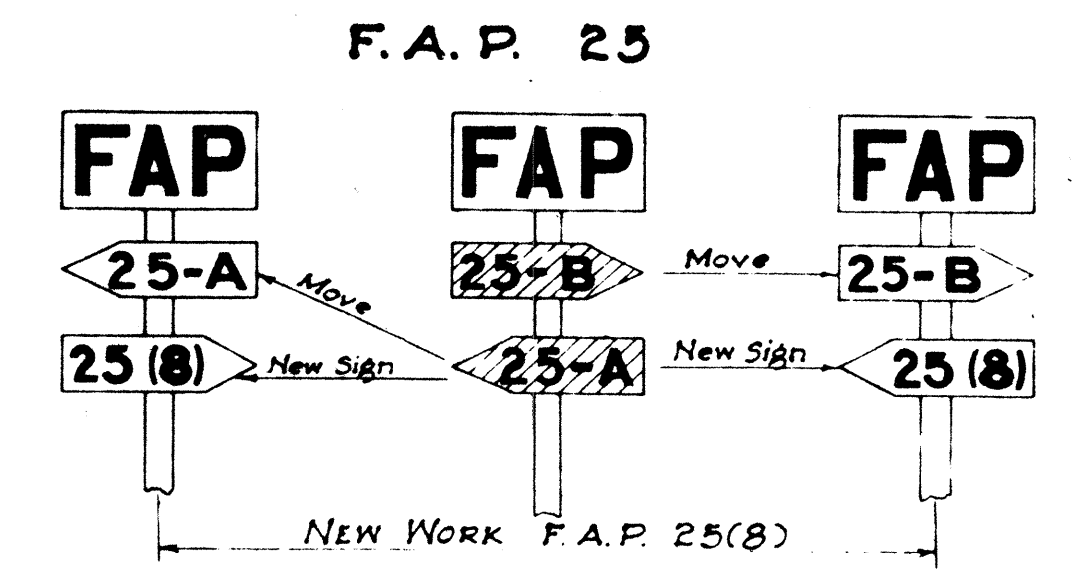
SECT. W-41

DETAIL OF SIGNS

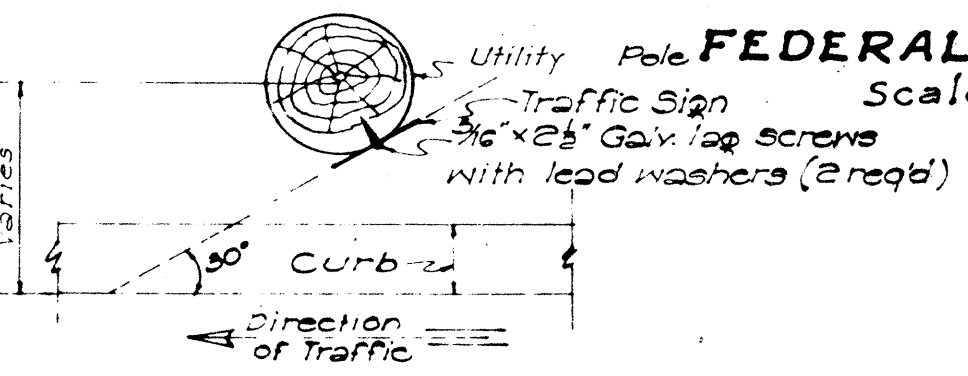
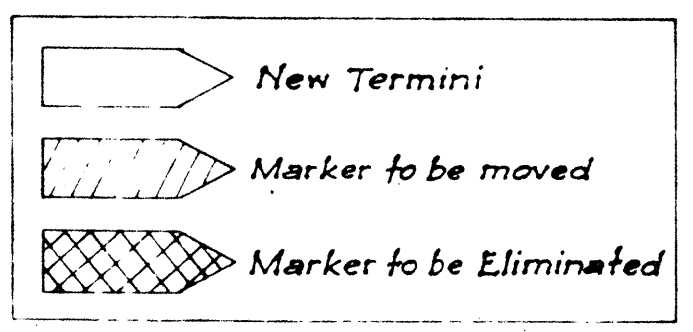
SCALE: 1 1/2" = 1'-0"



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



F.A.P. 25



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

APPROVED: *Ben E. Mott*
TERRITORIAL HIGHWAY ENGINEER

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