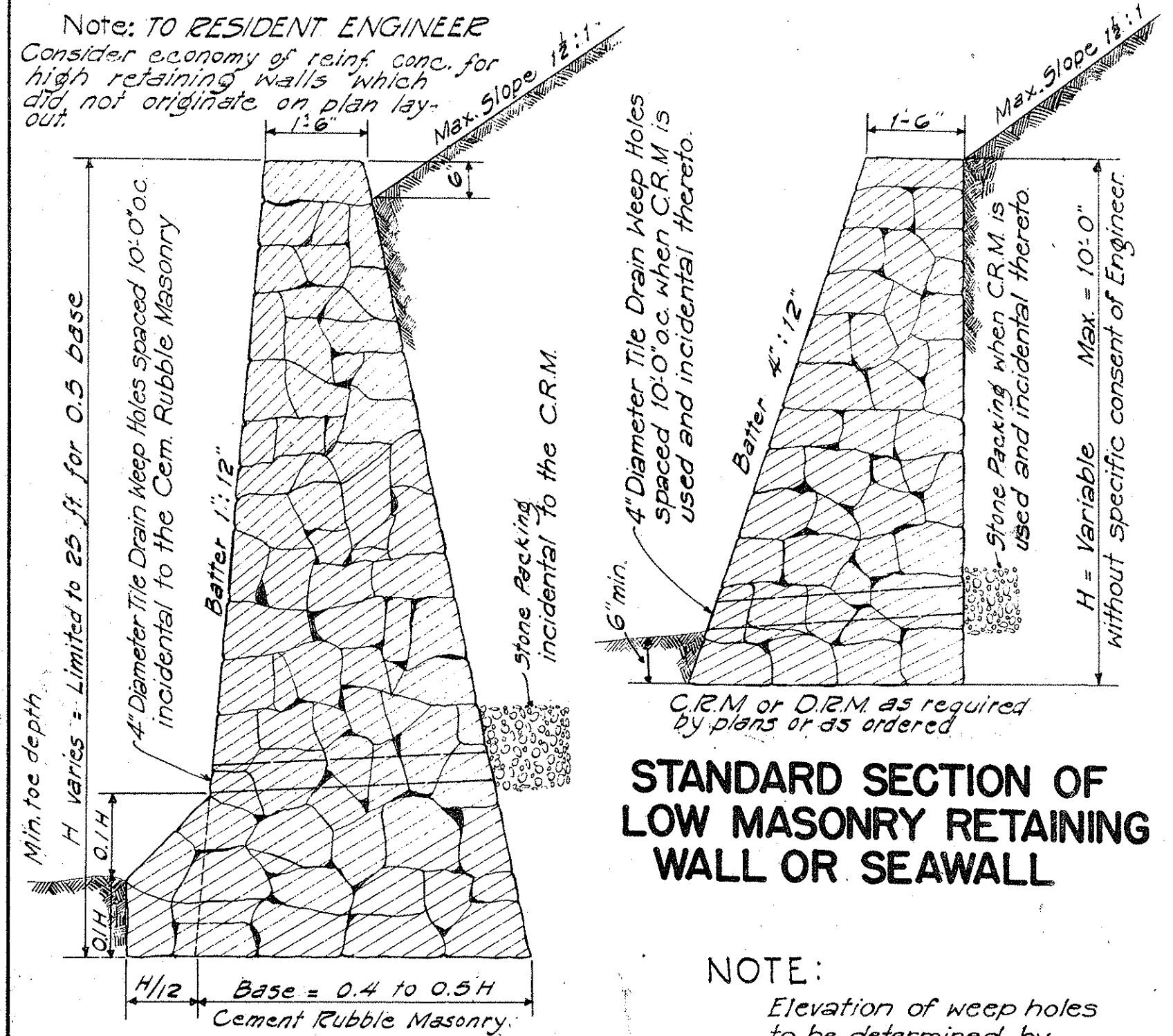




STANDARD SECTION OF LOW MASONRY RETAINING WALL OR SEAWALL

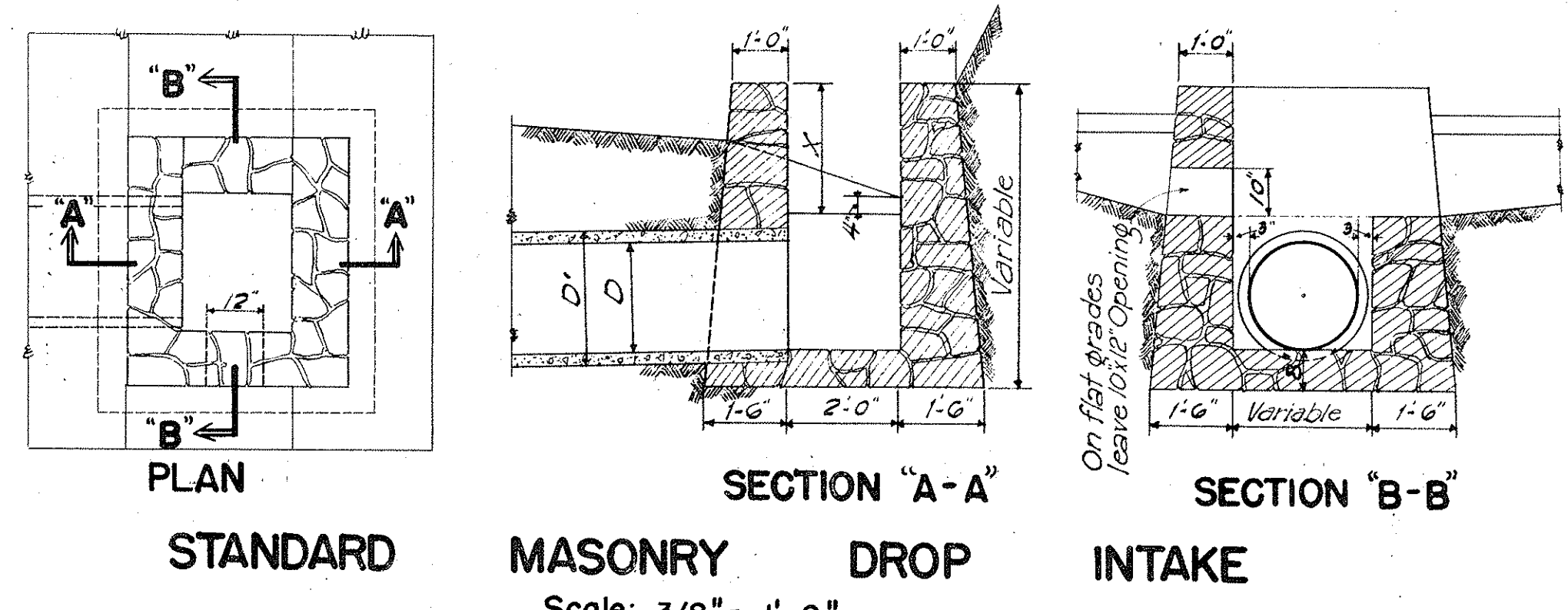
NOTE:
Elevation of weep holes to be determined by Resident Engineer. Holes to be placed as close to the existing ground line as local conditions permit.



Data Standard Masonry Drop Intake

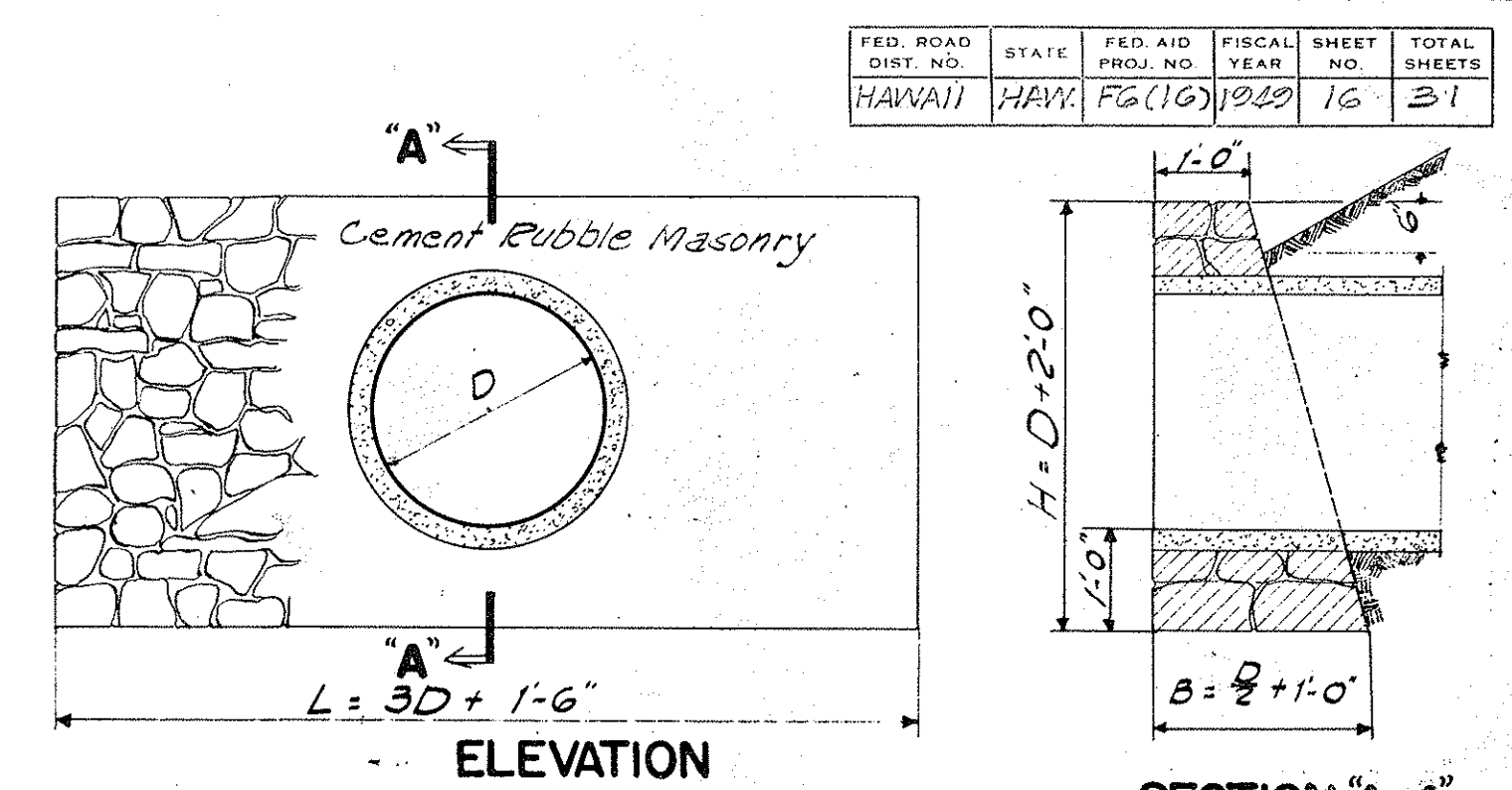
D	H	L = D+6"	Cu. Yds.	Where Variable Equals
22"	18"	2'-0"	2.41	4'-6"
25"	24"	2'-6"	2.69	5'-0"
35"	30"	3'-0"	3.38	5'-6"
42"	36"	3'-6"	3.92	6'-0"

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



STANDARD MASONRY DROP INTAKE

Scale: 3/8" = 1'-0"



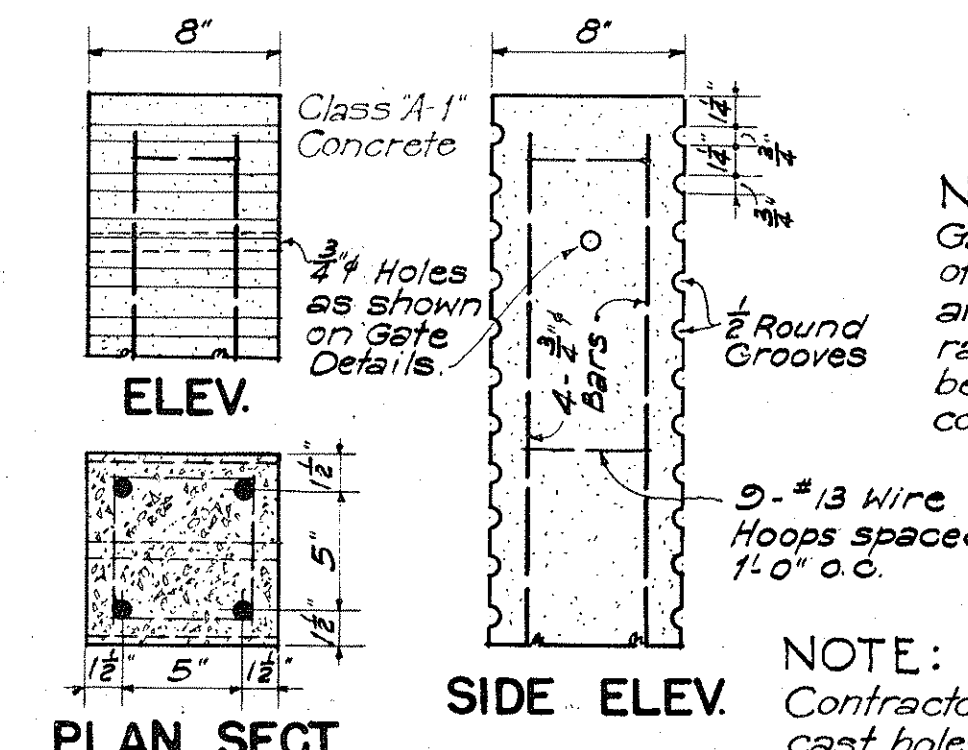
STANDARD MASONRY HEADWALL

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

Data-Standard Rubble Masonry H.W.

Cast-in-Place Cu. Yds.	Precast Cu. Yds.	D	H	B	L	Cu. Yds. H.W.
0.85	0.95	18"	3'-6"	1'-0"	6'-0"	0.95
1.23	1.45	24"	4'-0"	2'-0"	7'-6"	1.41
1.83	2.06	30"	4'-6"	2'-3"	9'-0"	2.00
2.40	2.84	36"	5'-0"	2'-6"	10'-6"	2.72

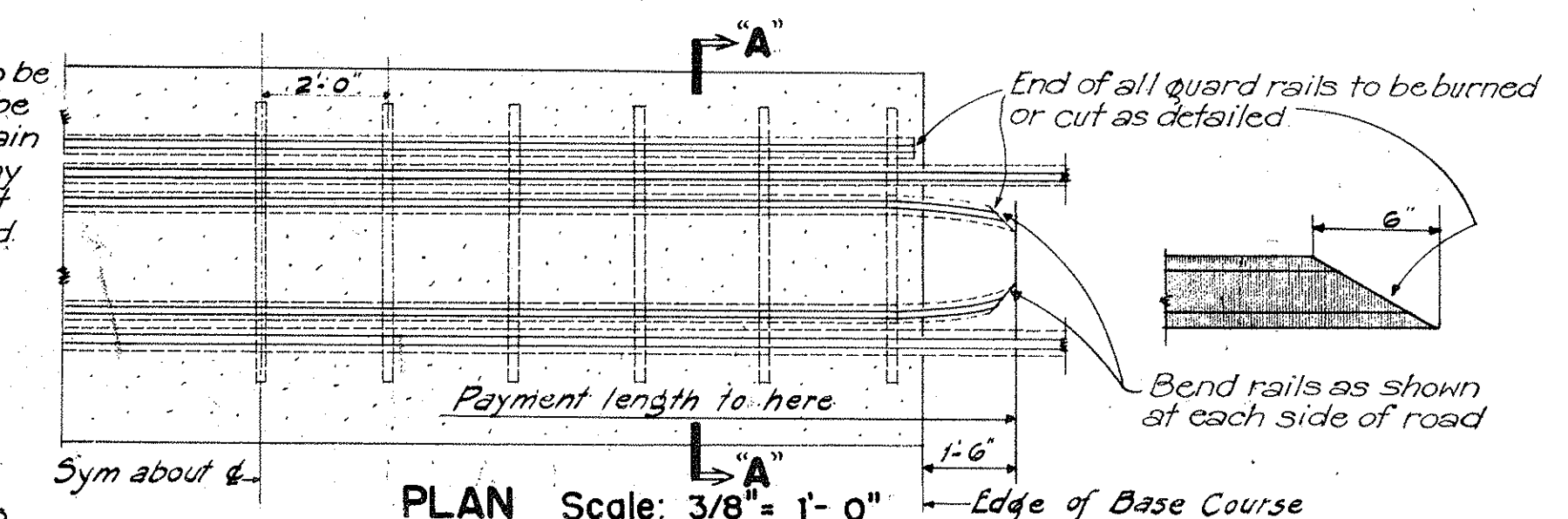
NOTE:
Volume for one head wall is for corrugated pipe culvert



STANDARD CONC. GATE POST

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

NOTE:
Guard rails are to be of the same shape and weight as Main rails. Details may be varied to suit conditions in field.

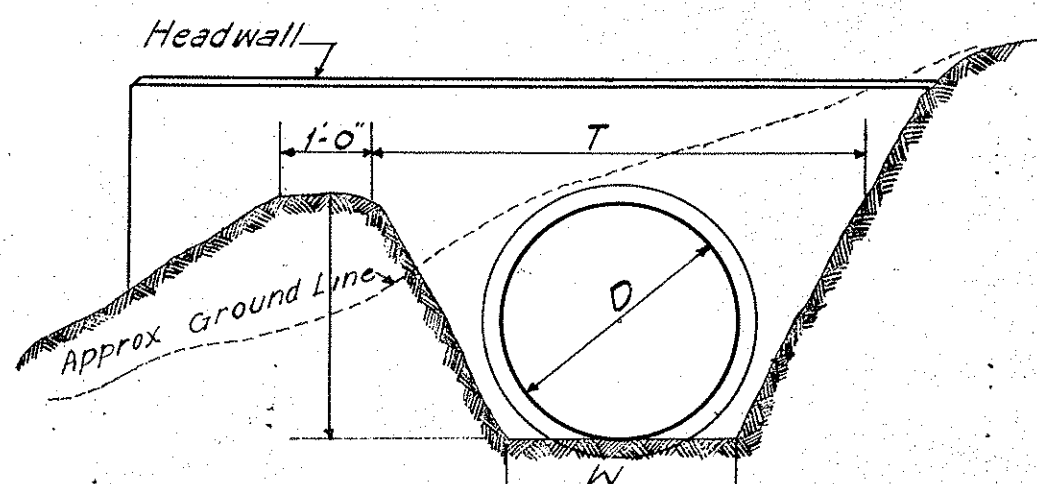


INDUSTRIAL TRACK CROSSING

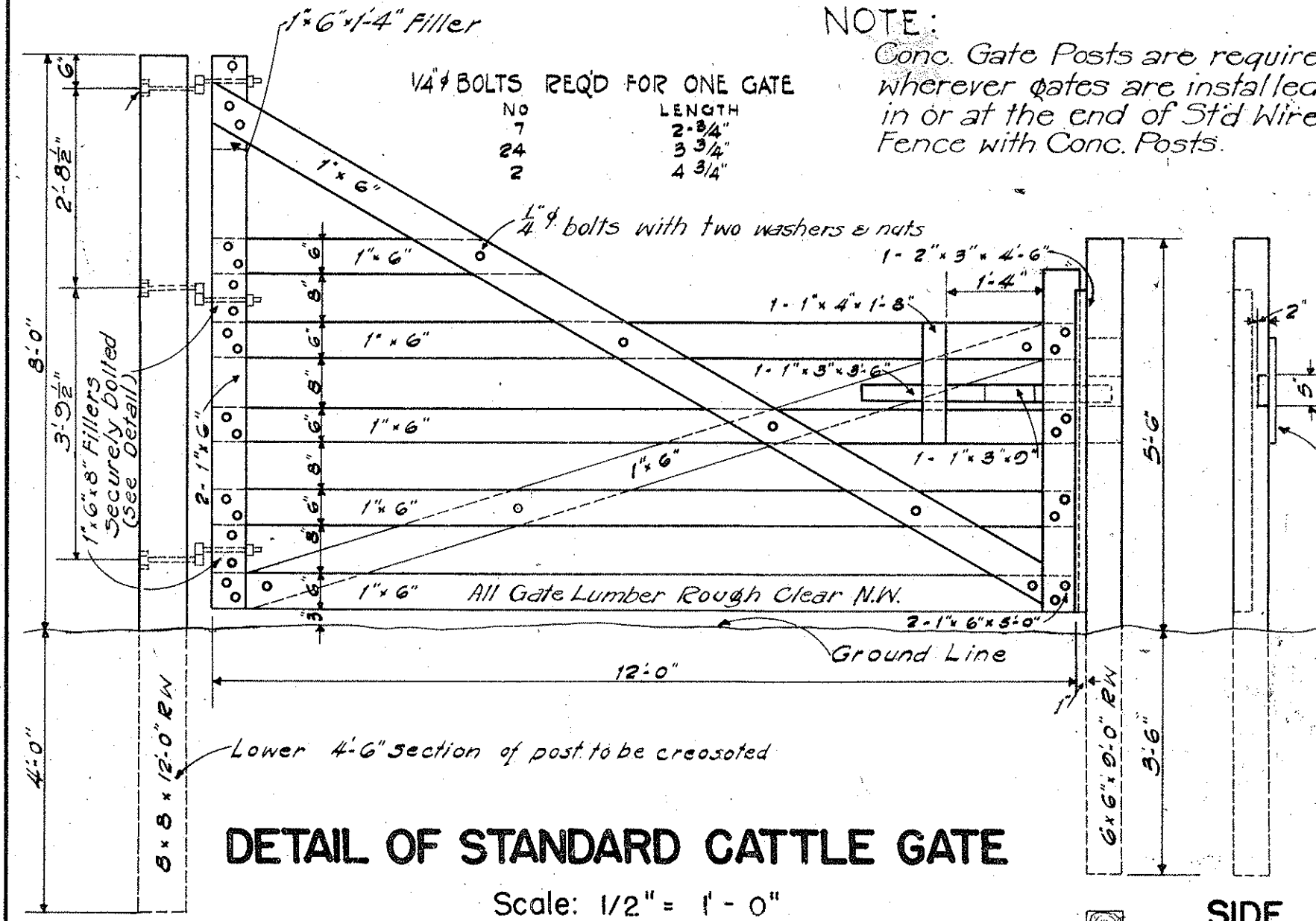
NOTE: Use TYPE "A" if neither TYPE "A" or "B" is specified.

Data-Standard Outlet Ditch

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



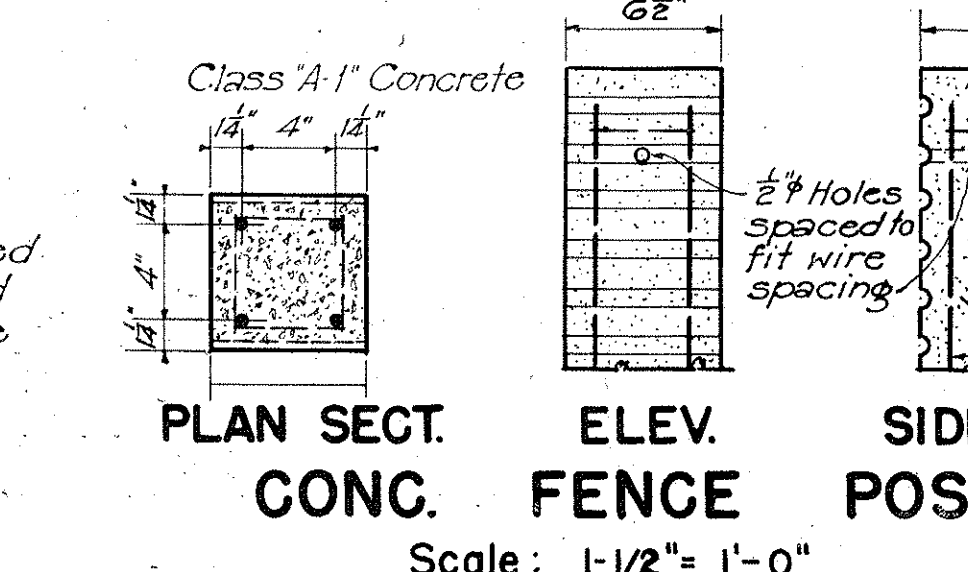
DETAIL OF STANDARD OUTLET DITCH



DETAIL OF STANDARD CATTLE GATE

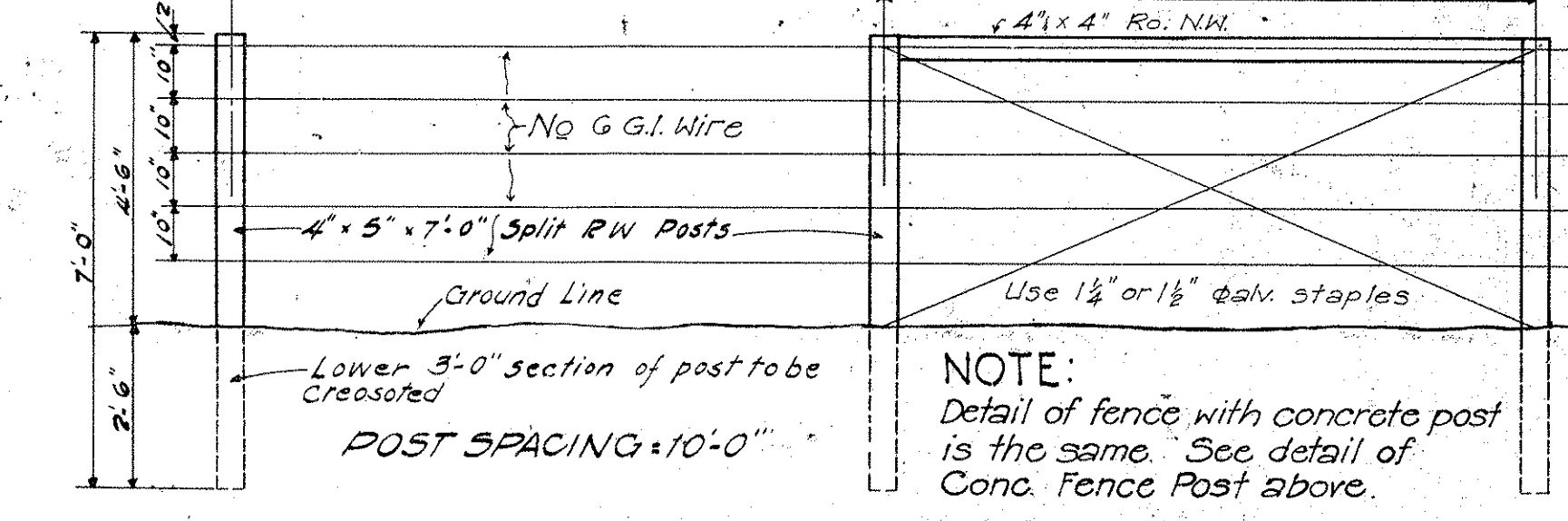
Scale: 1/2" = 1'-0"

See Note regarding use of Concrete Posts.



STANDARD GUIDE POSTS: 8"x8" Reinforced Conc. Posts same as those used for Std Wood Guard Rail spaced 18'-0" oc. unless otherwise specified.

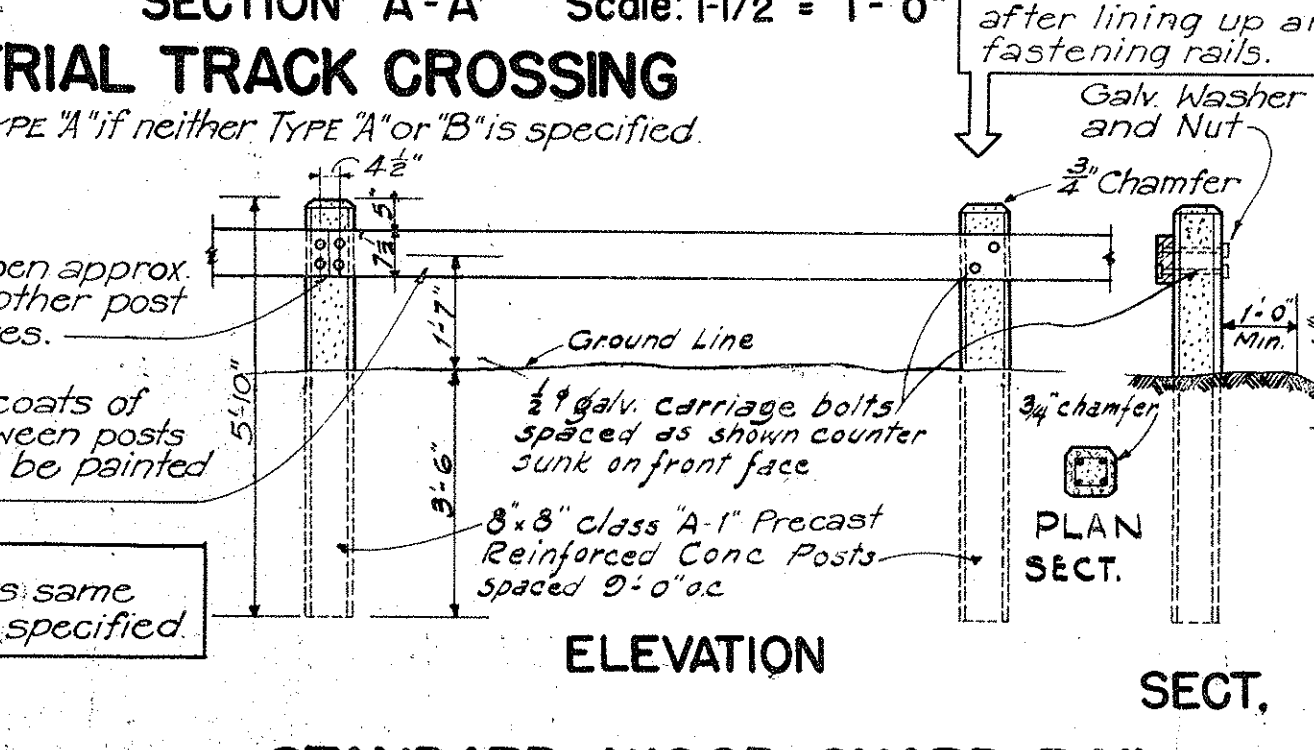
NOTE: Fence must be anchored against pull at least every 500 ft. and also at top of rise and bottom of dip.



NOTE:
Detail of fence with concrete post is the same. See detail of Conc. Fence Post above.

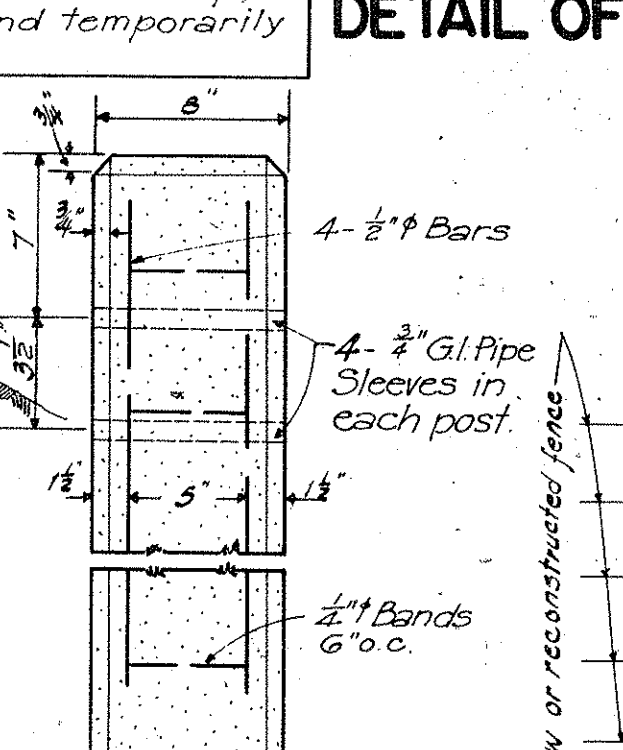
DETAILS OF STANDARD WIRE FENCE WITH WOODEN POSTS

Scale: 3/8" = 1'-0"



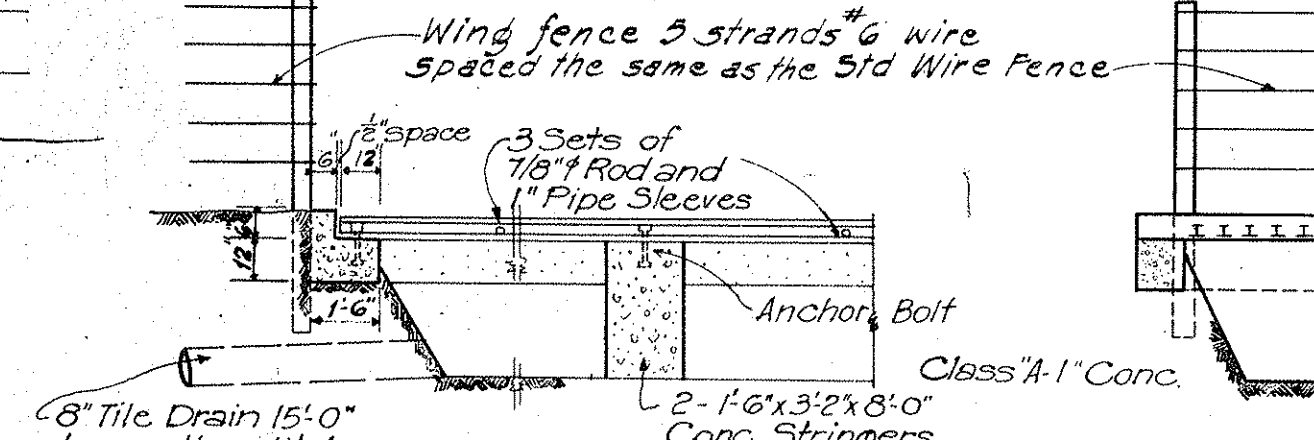
STANDARD WOOD GUARD RAIL

Scale: 3/8" = 1'-0"



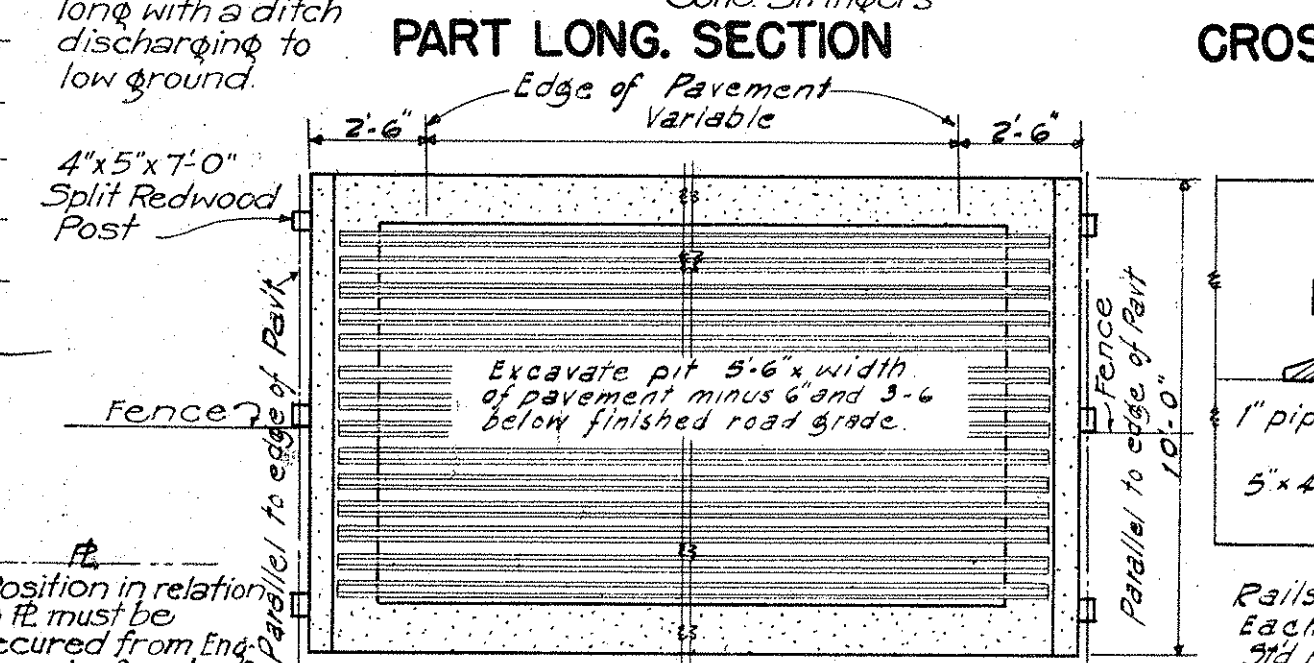
DET. OF CONC. POST

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

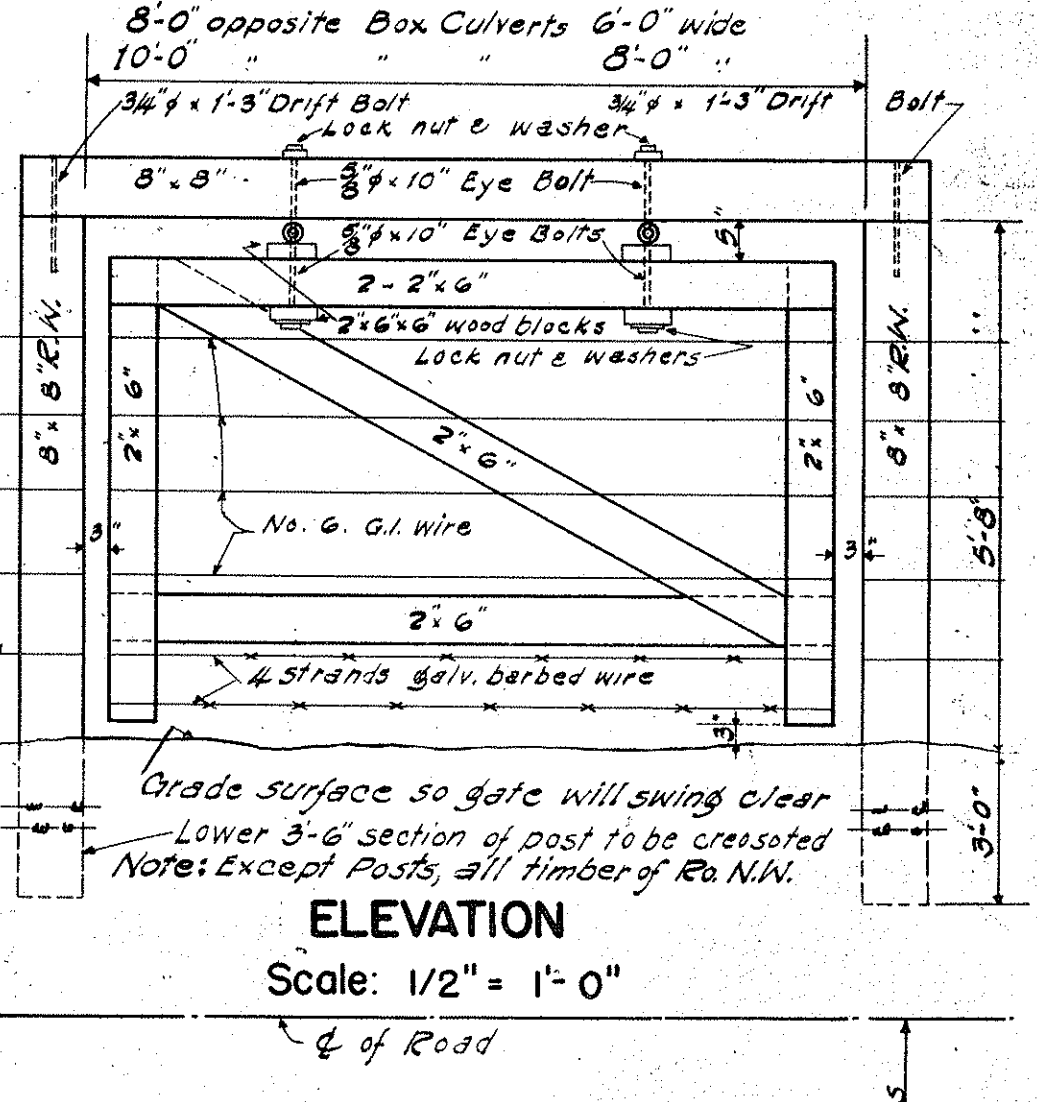


PART LONG SECTION

CROSS SECTION



DETAILS OF CATTLE GUARD



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

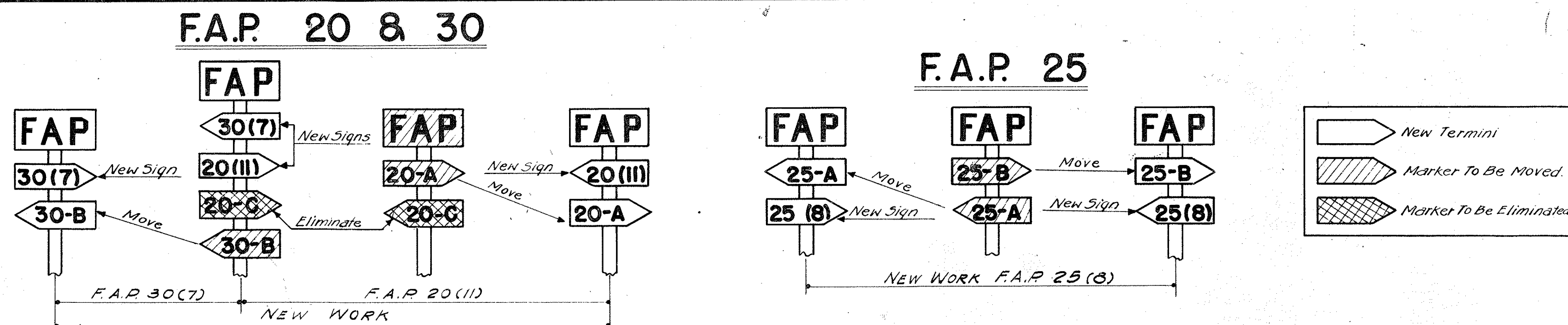
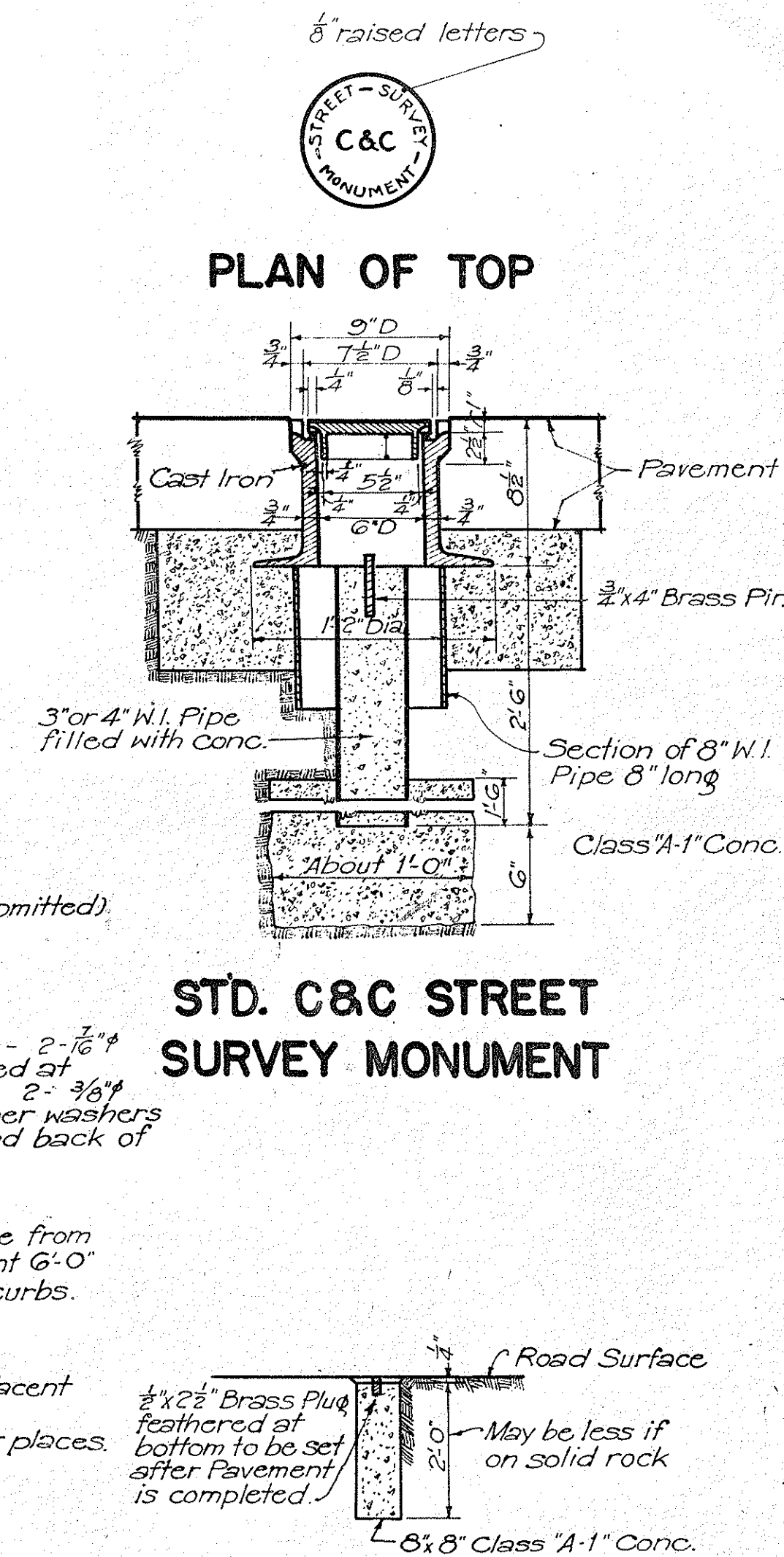
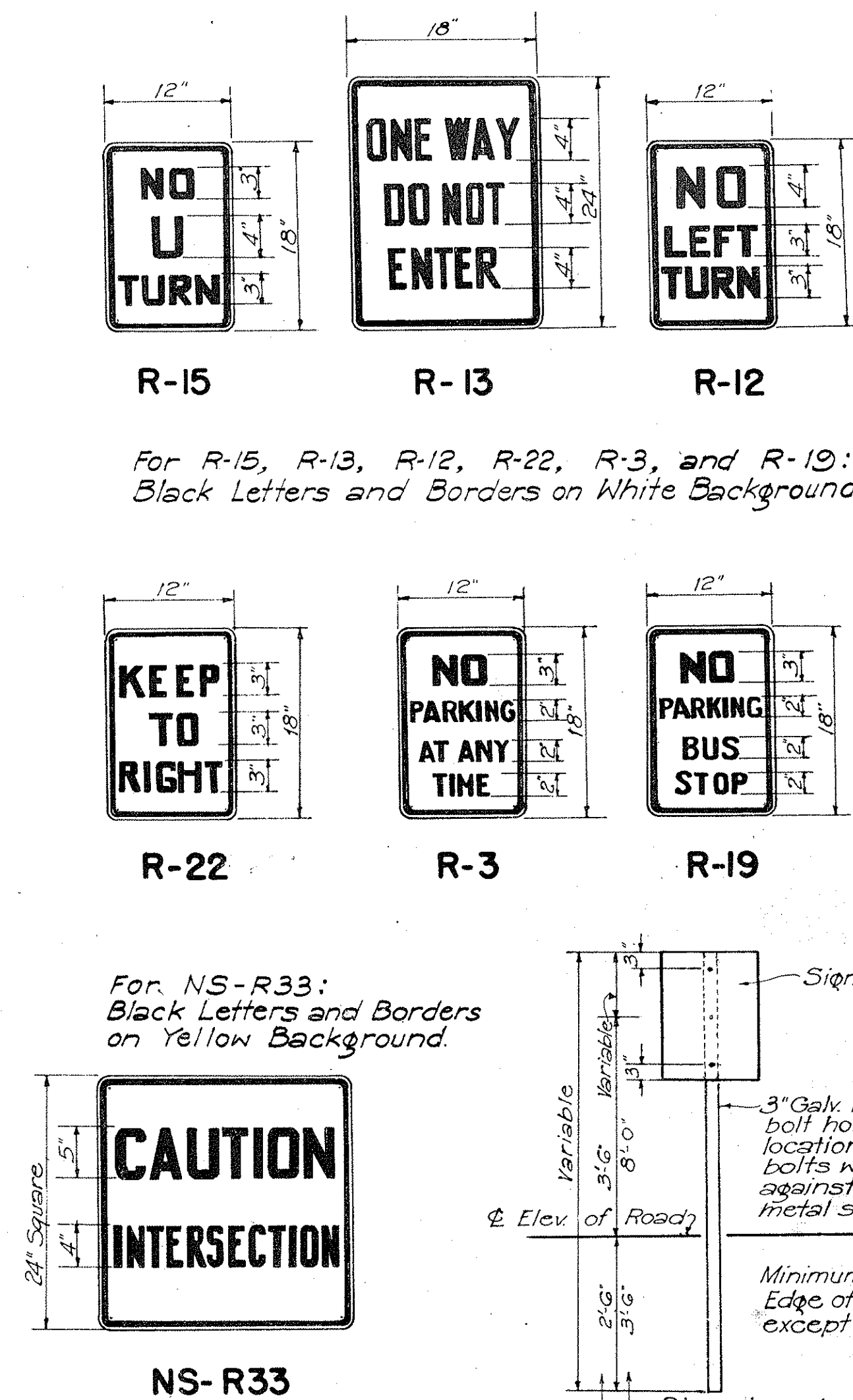
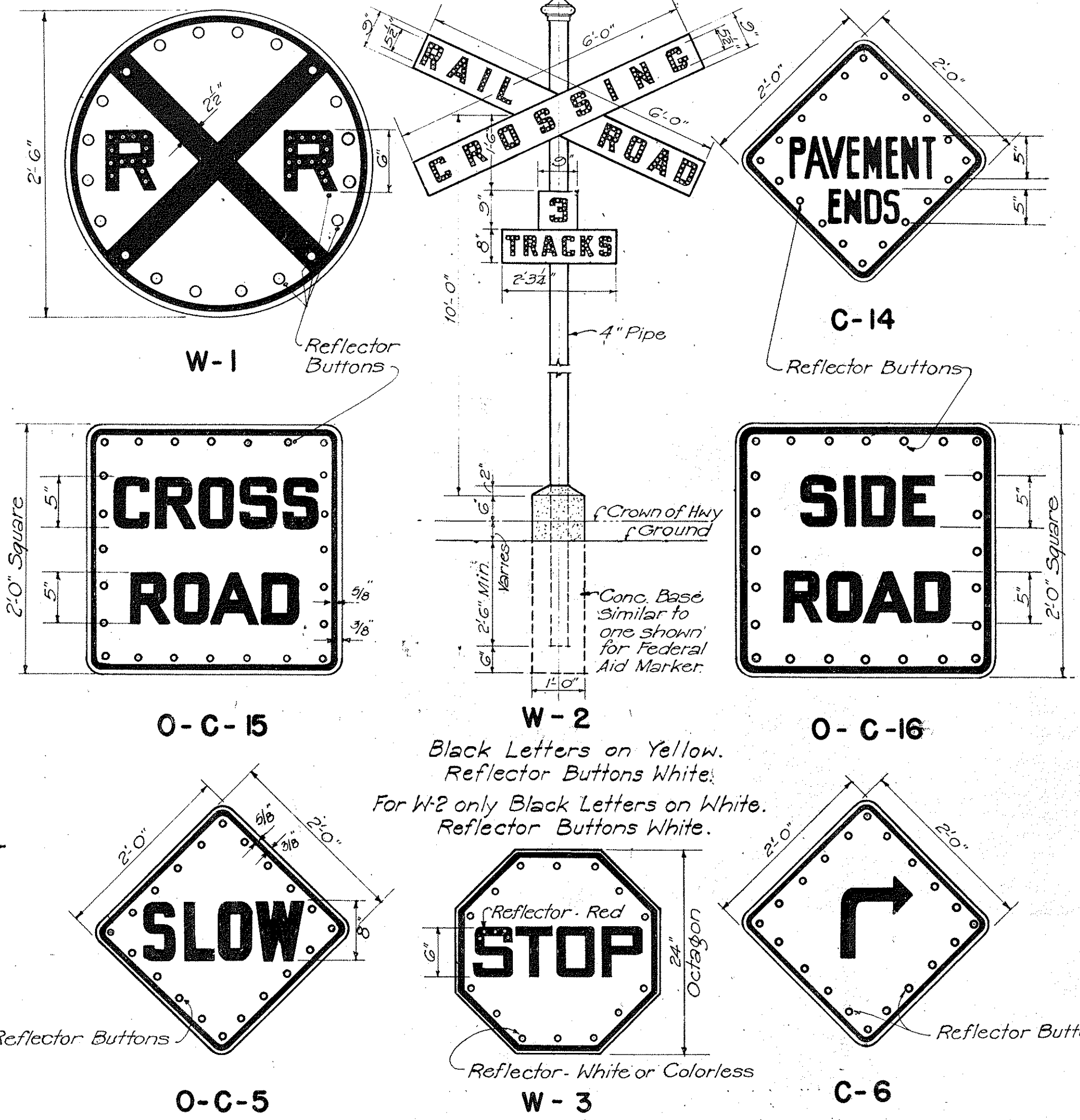
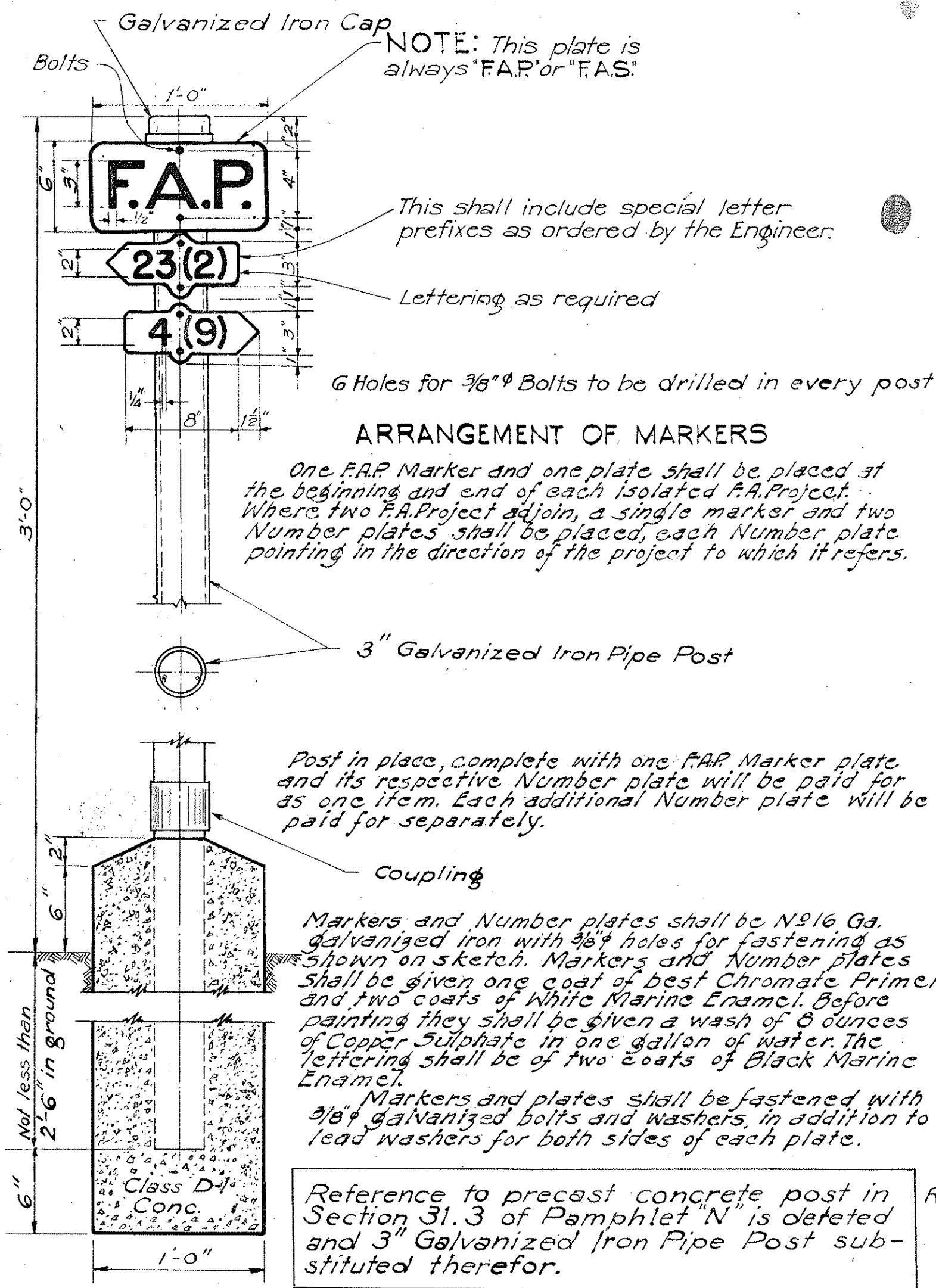
DETAILS OF HURDLE

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

STANDARD DETAILS

SCALES AS NOTED
APPROVED: *[Signature]*
Territorial Highway Engineer
Apr. 15, 1948
SHEET NO. 1 OF 4 SHEETS

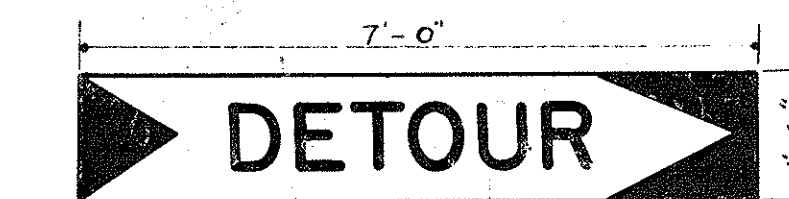
DATE: _____
DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
NOTED BY: _____



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

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

Note: Letters to be 12" high and 1/2" thick. Secondary detour and direction signs necessary to be at least 1/2 the above size. Detour signs shall be placed at the location ordered by the Engineer.



STANDARD DETOUR SIGN

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

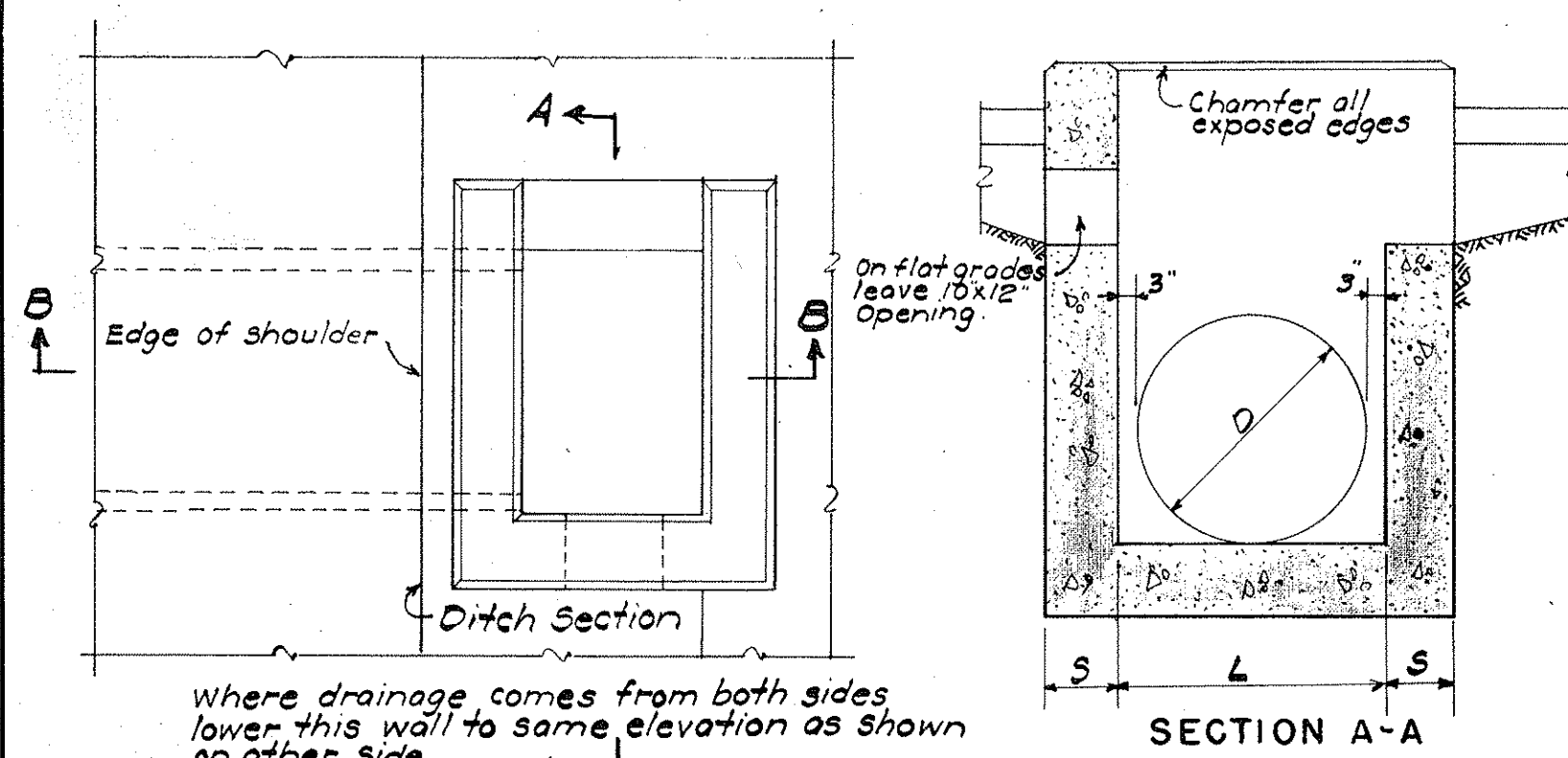
STANDARD DETAILS

SCALES AS NOTED Apr. 15, 1948

APPROVED: *Am. Belt*
Territorial Highway Engineer

SHEET No 2 OF 4 SHEETS

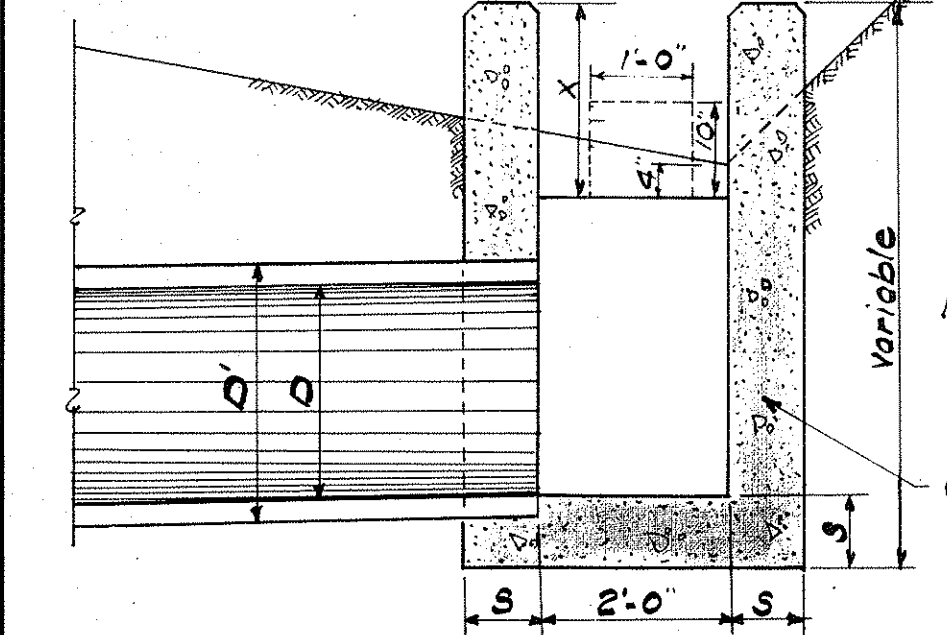
5340.17



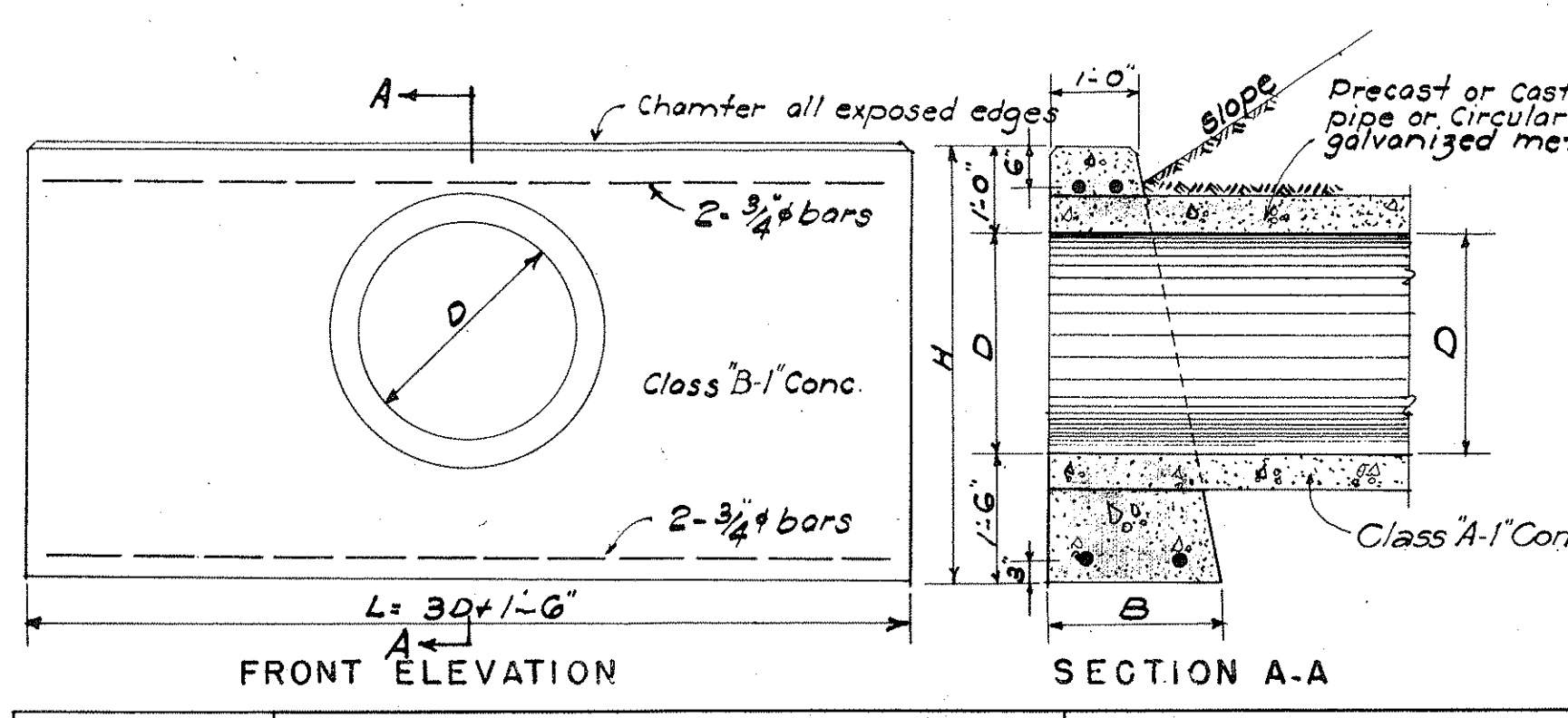
Data-Standard Drop Intake

D	D	L = D + 6"	S	Cu. Yds.	Where Variable Equals
22 1/2"	18"	2'-0"	8"	1.10	4'-6"
29"	24"	2'-6"	8"	1.33	5'-0"
35 1/2"	30"	3'-0"	9"	1.79	5'-6"
42"	36"	3'-6"	9"	2.07	6'-0"

Note! Dimension 'x' is assumed as 2'-4" in figuring the above quantities



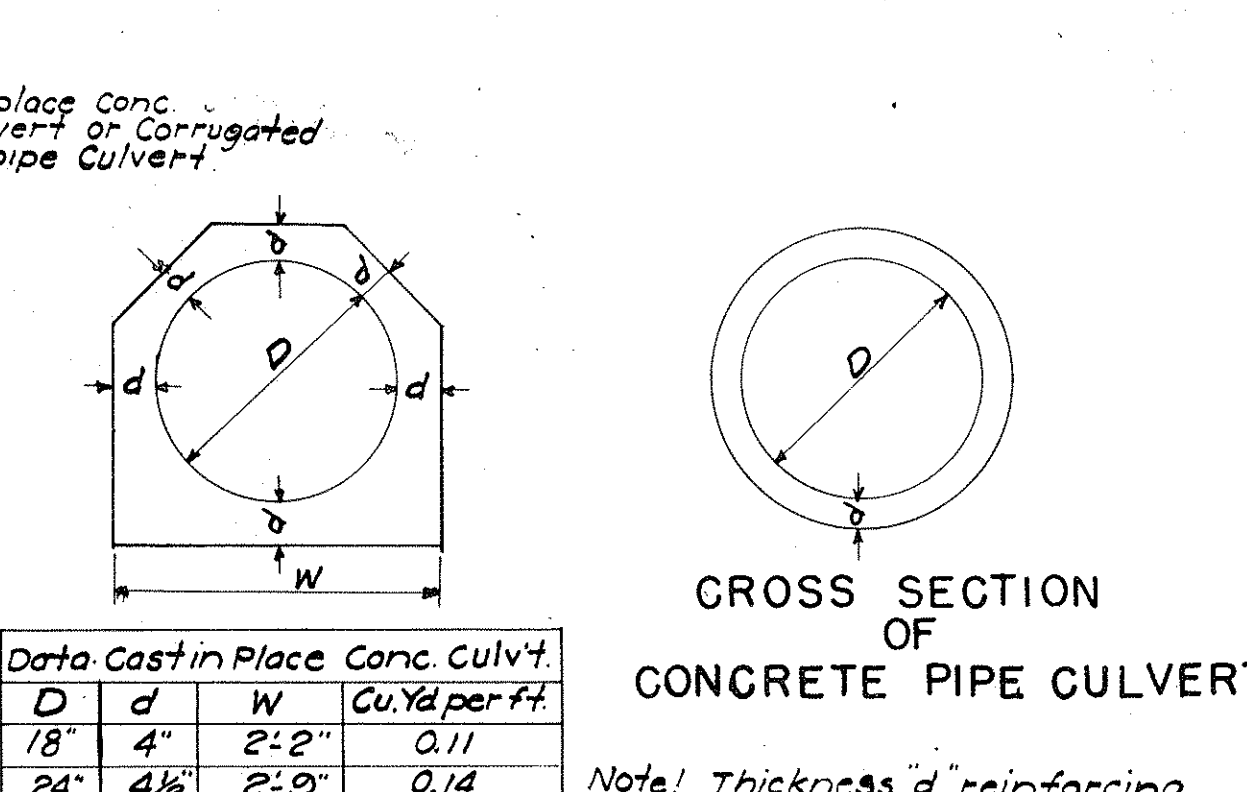
STANDARD CONCRETE DROP INTAKE
Scale 1/2" = 1'-0"



Data-Standard Concrete Headwall

Cast in Place Cu. Yds.	D	B	L	H	Conc. one H.W.	No of Bars	Size	Length	Wt. Lbs.
0.92 Cu. Yds.	18"	1'-6"	6'-0"	4'-0"	1.00 Cu. Yds.	4	3/4"	5'-6"	33
1.25 "	24"	1'-6"	7'-6"	4'-6"	1.38 "	4	"	7'-0"	42
1.95 "	30"	2'-0"	9'-0"	5'-0"	2.17 "	4	"	8'-6"	51
2.45 "	36"	2'-0"	10'-6"	5'-6"	2.74 "	4	"	10'-0"	60

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

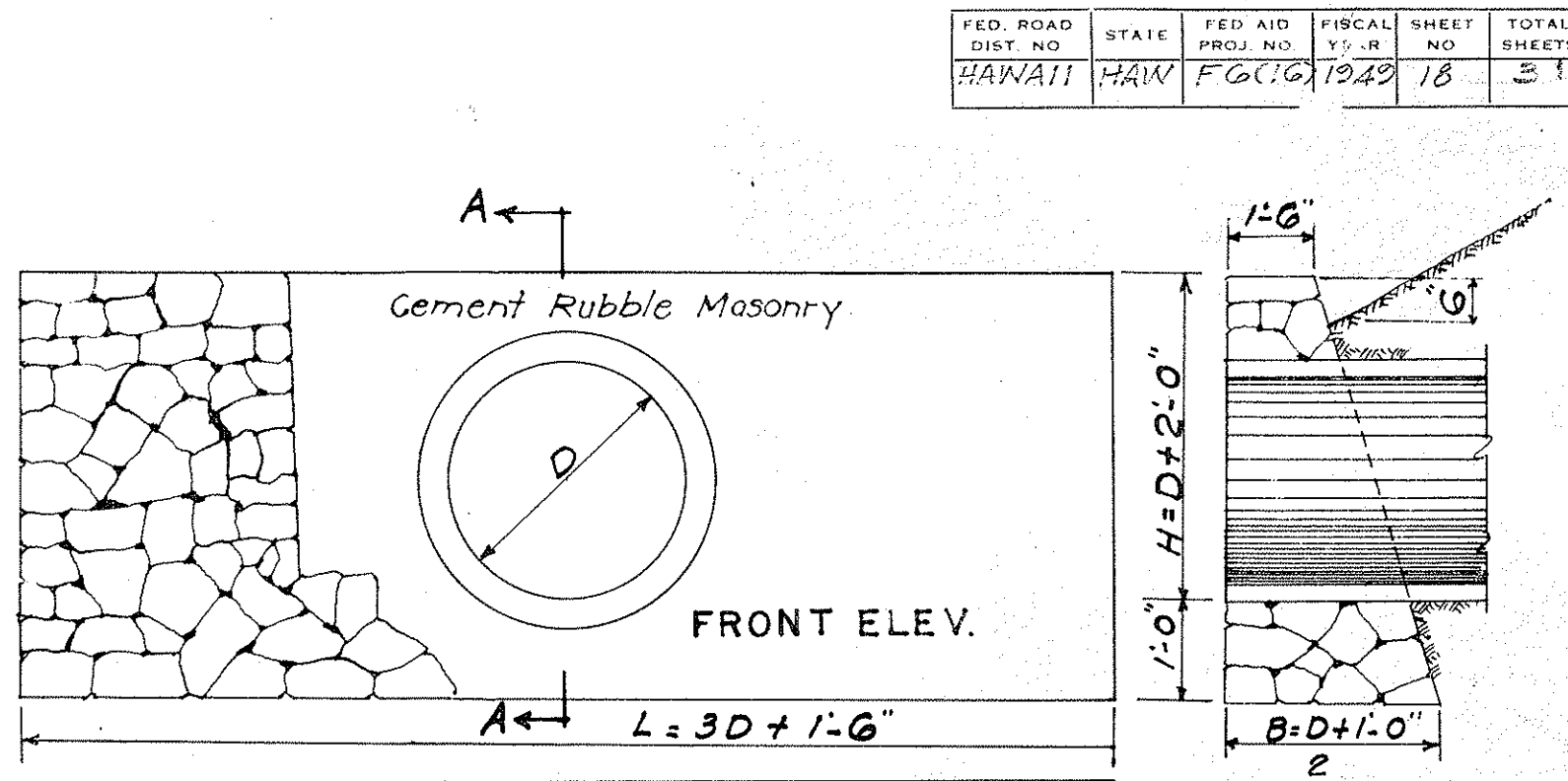


Data-Cast in Place Conc. Culvert

D	d	W	Cu. Yd 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

Note! Thickness 'd' reinforcing and concrete used are to conform with the approved design as provided by the specification

GROSS SECTION OF CAST-IN-PLACE CONCRETE CULVERT

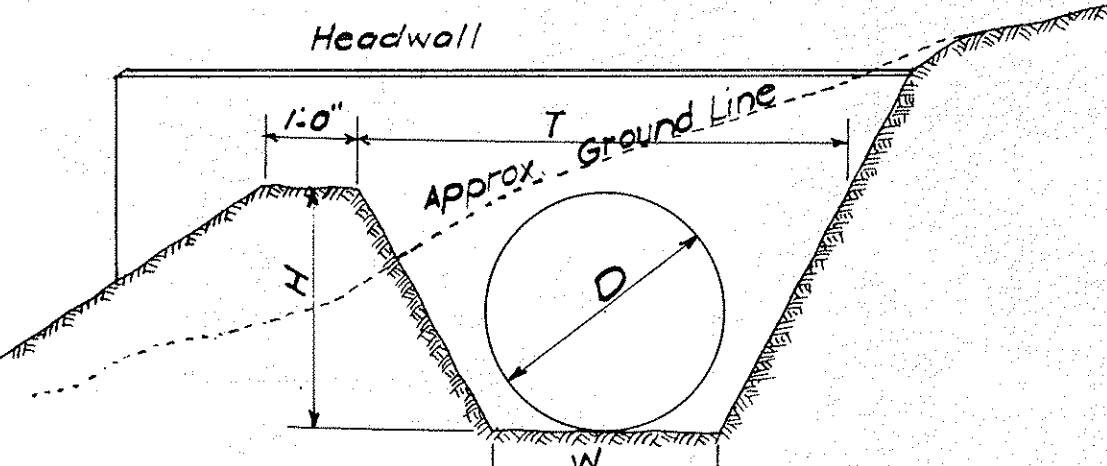


Data-Standard Rubble Masonry HW

Cast in Place Cu. Yds.	Precast Cu. Yds.	D	H	B	L	C.Y. one HW
0.85	0.95	18"	3'-6"	1'-9"	6'-0"	0.93
1.28	1.45	24"	4'-0"	2'-0"	7'-6"	1.41
1.83	2.06	30"	4'-6"	2'-3"	9'-0"	2.00
2.40	2.84	36"	5'-0"	2'-6"	10'-6"	2.72

Note! Volume for one headwall is for corrugated pipe culvert

STANDARD MASONRY HEADWALL



CROSS SECTION OF STANDARD OUTLET DITCH

Data-Standard Outlet Ditch

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



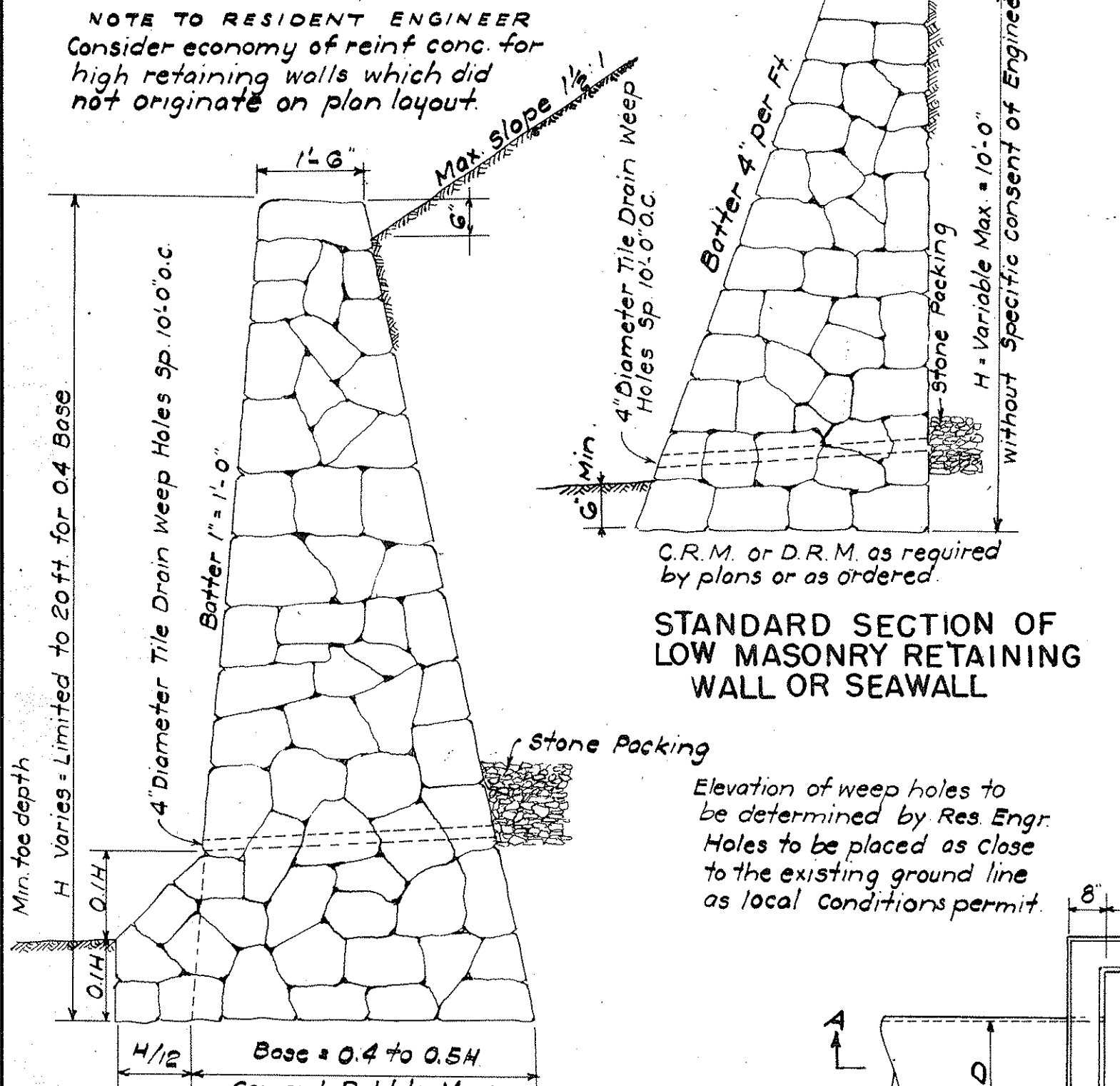
STANDARD DETOUR SIGN

Letters to be 12" high and 1/2" thick. Secondary detour and direction signs necessary to be at least 1/2 the above size. Detour signs shall be of the location ordered by the Engineer.

Data-Standard Masonry Intake

D	D	L = D + 6"	Cu. Yds.	Where Variable Equals
22 1/2"	18"	2'-0"	2.41	4'-6"
29"	24"	2'-6"	2.39	5'-0"
35 1/2"	30"	3'-0"	3.38	5'-6"
42"	36"	3'-6"	3.92	6'-0"

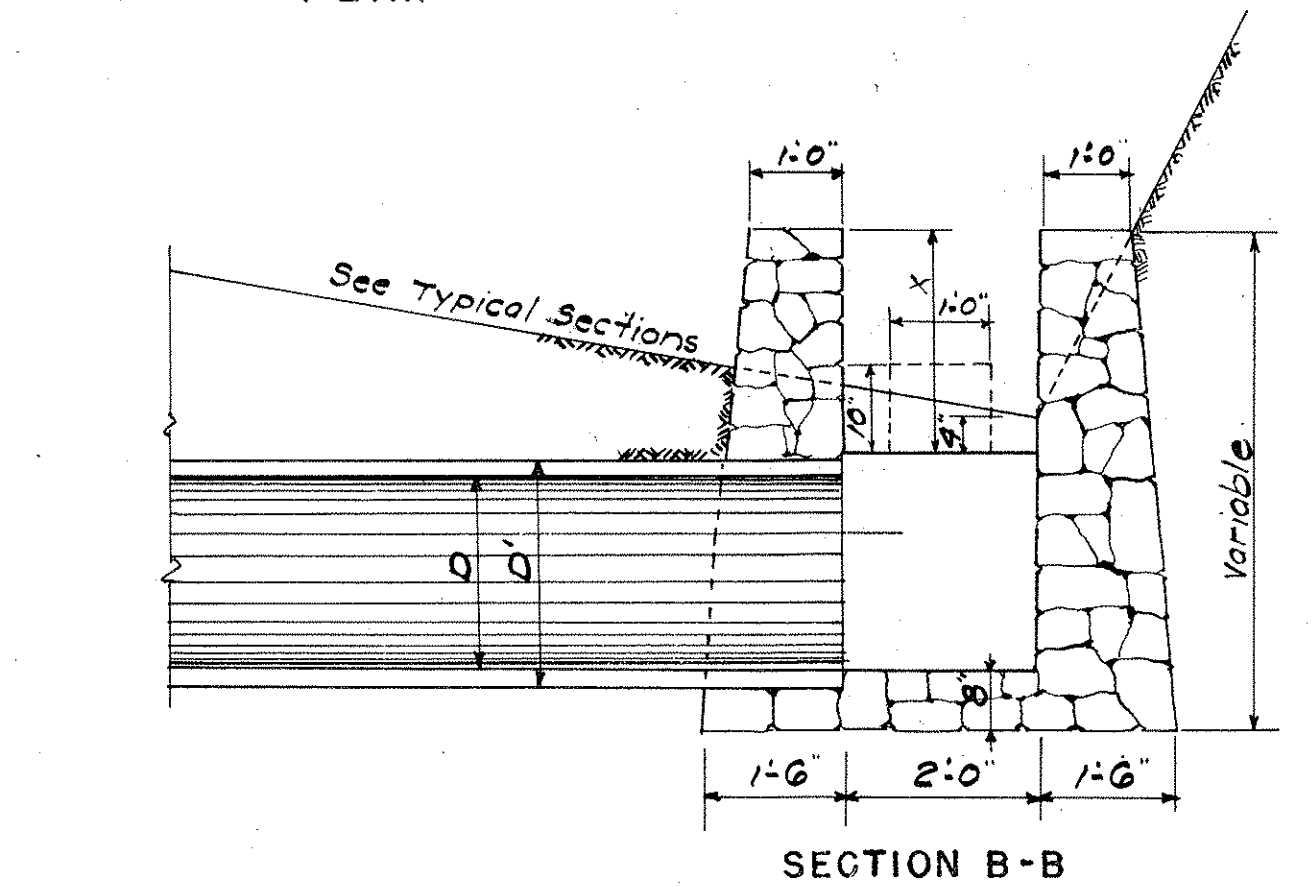
Note! Dimension 'x' is assumed as 2'-4" in figuring the above quantities



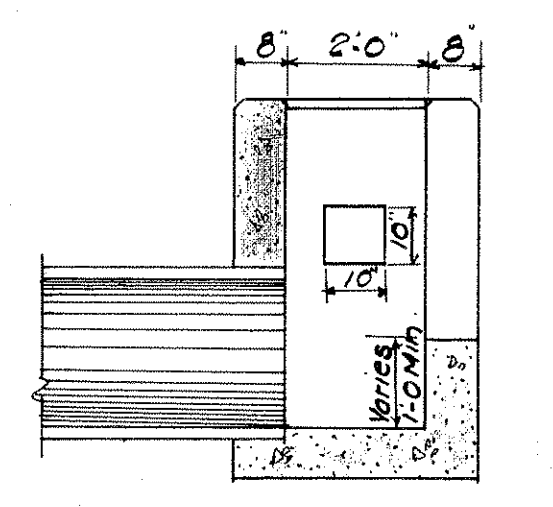
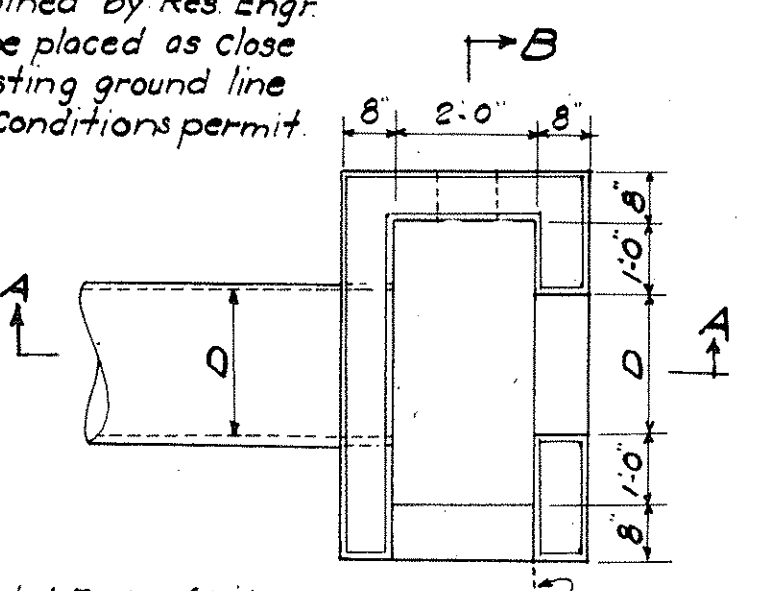
STANDARD SECTION OF LOW MASONRY RETAINING WALL OR SEAWALL



STANDARD SECTION OF HIGH CEMENT RUBBLE MASONRY RETAINING WALLS OR SEAWALL



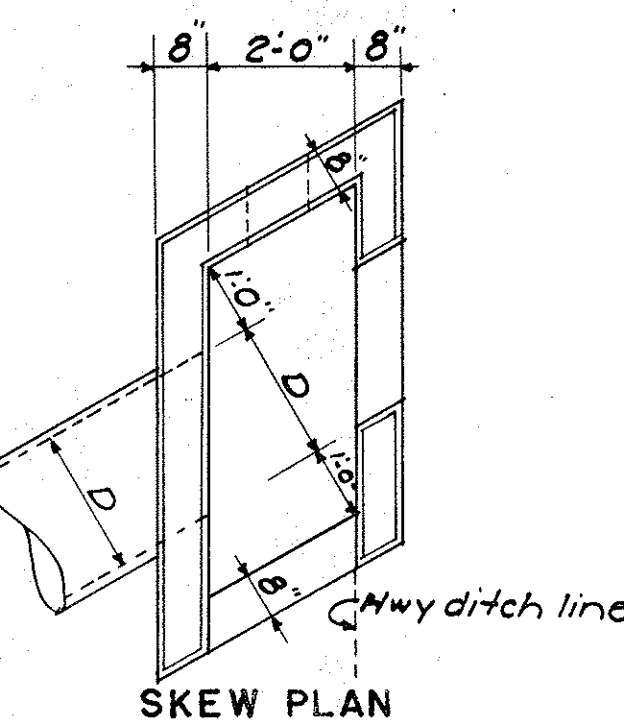
STANDARD MASONRY DROP-INTAKE
Scale 1/2" = 1'-0"



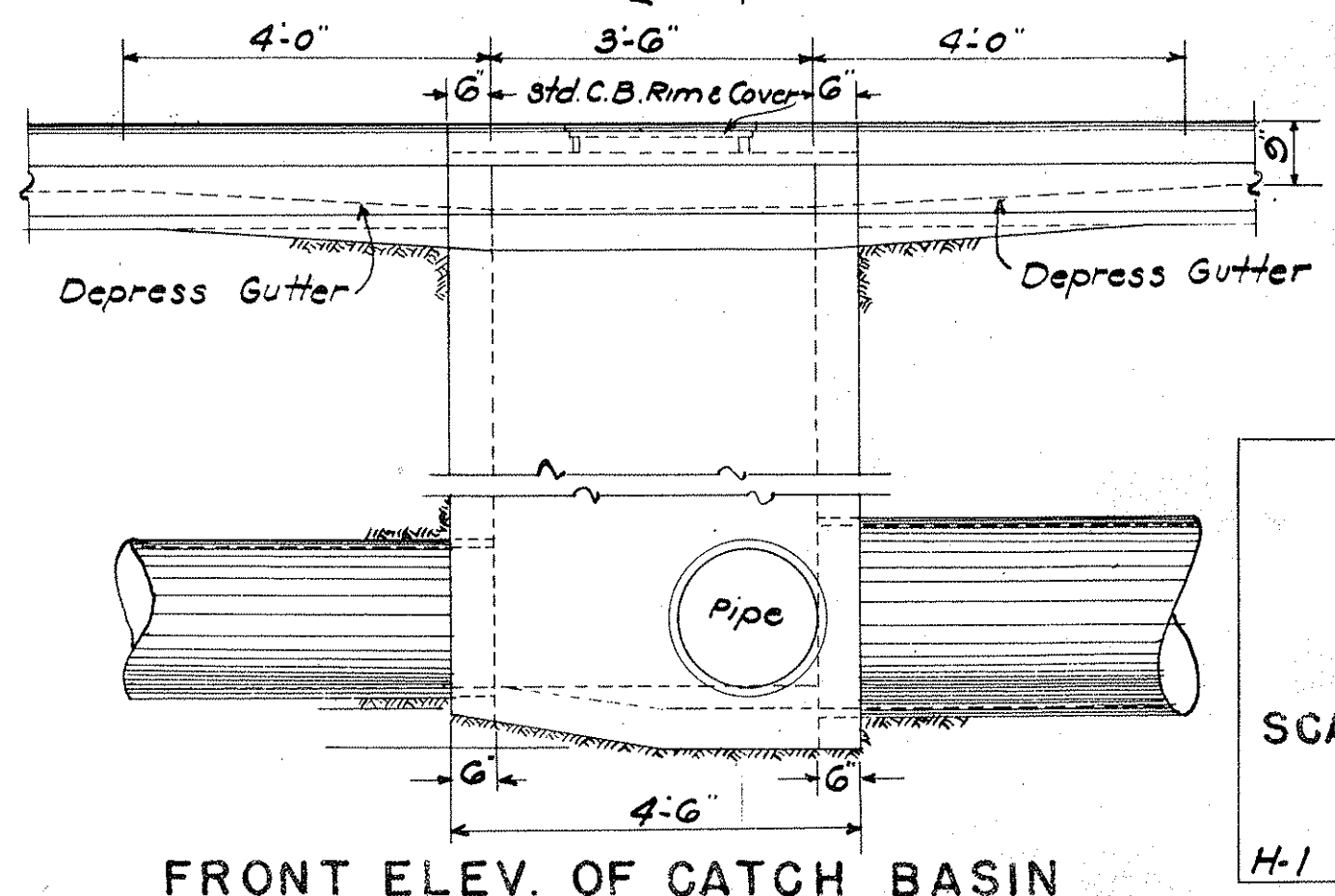
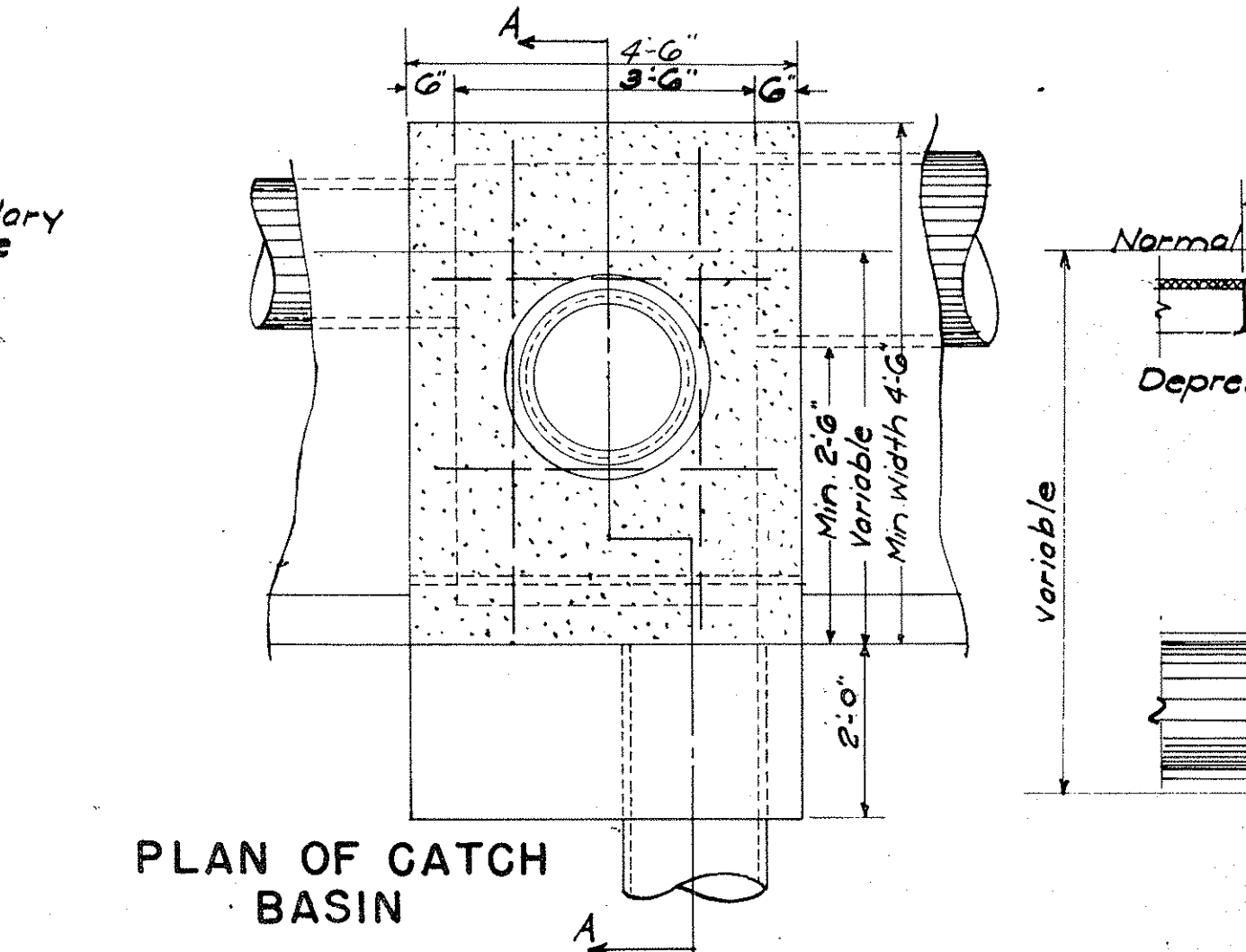
Data

D	CY
18"	1.53
24"	1.61

CONCRETE DROP INTAKE FOR IRRIGATION DITCHES
Scale 3/8" = 1'-0"



SKIEW PLAN



SECTION A-A OF CATCH BASIN
Scale 1/2" = 1'-0"