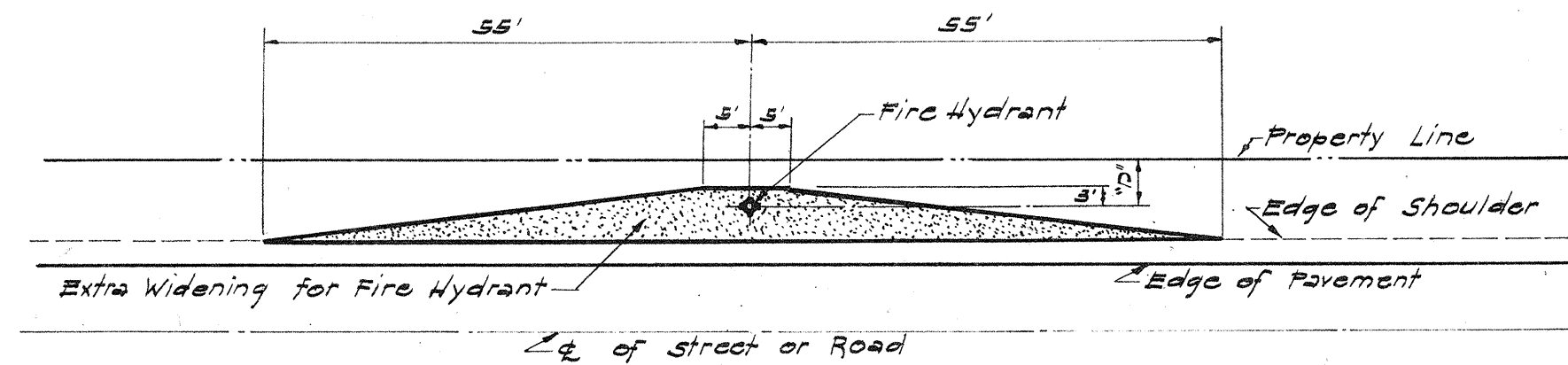
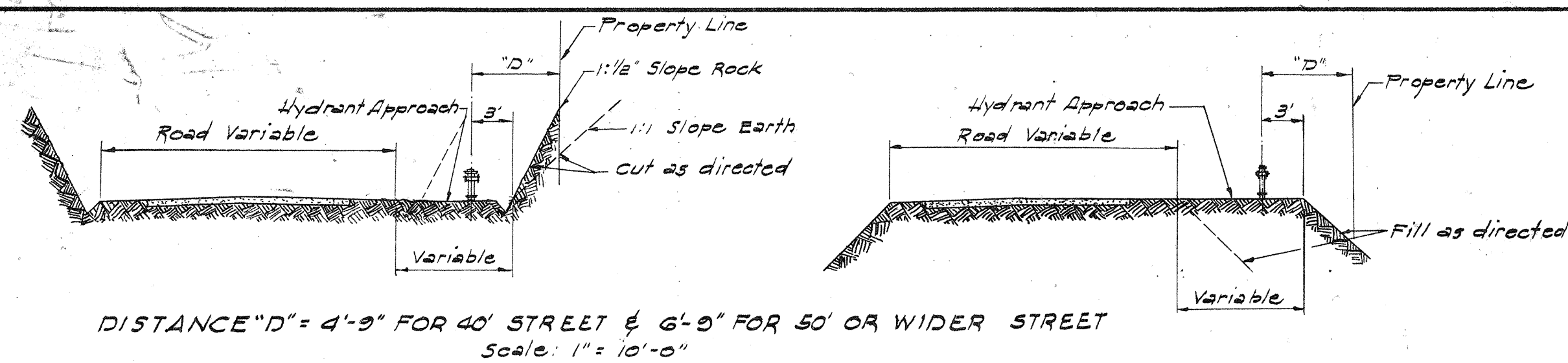
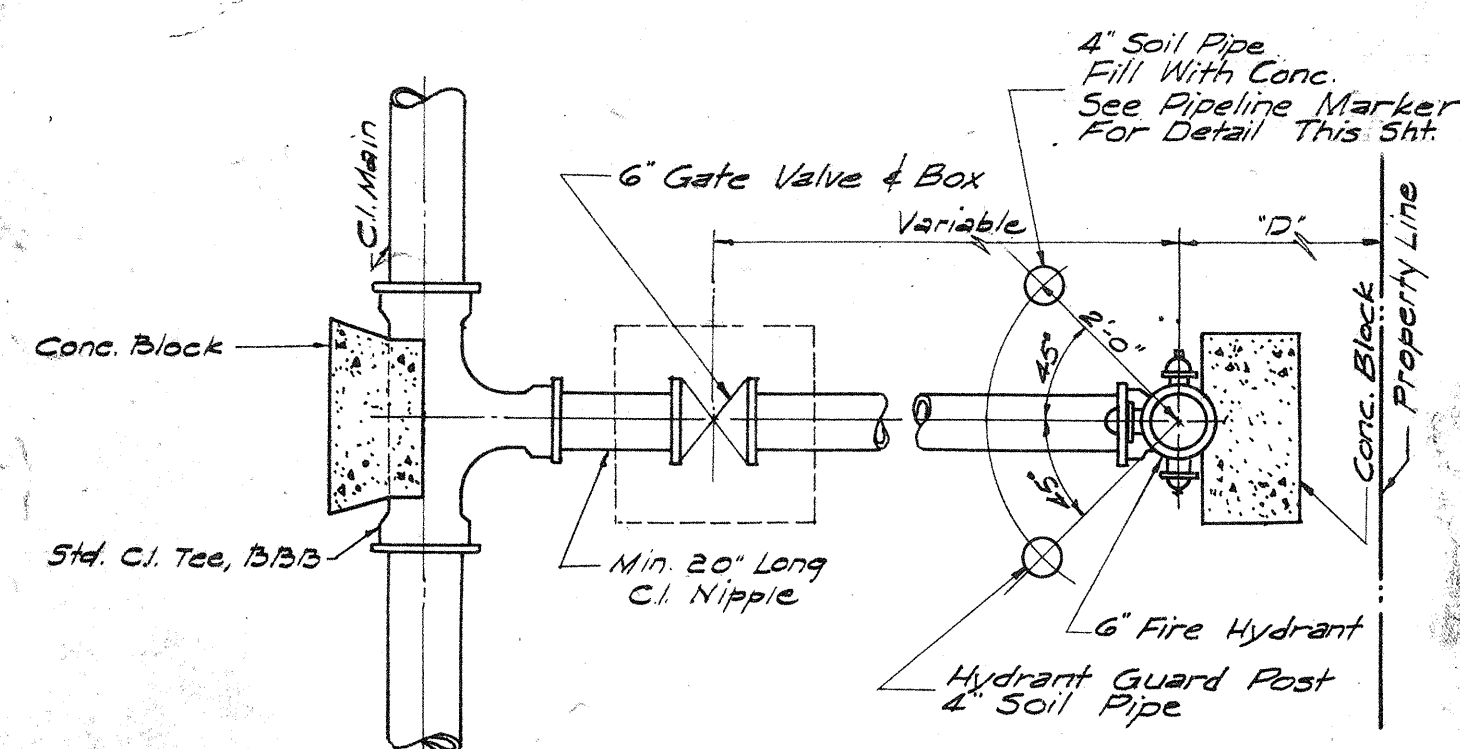
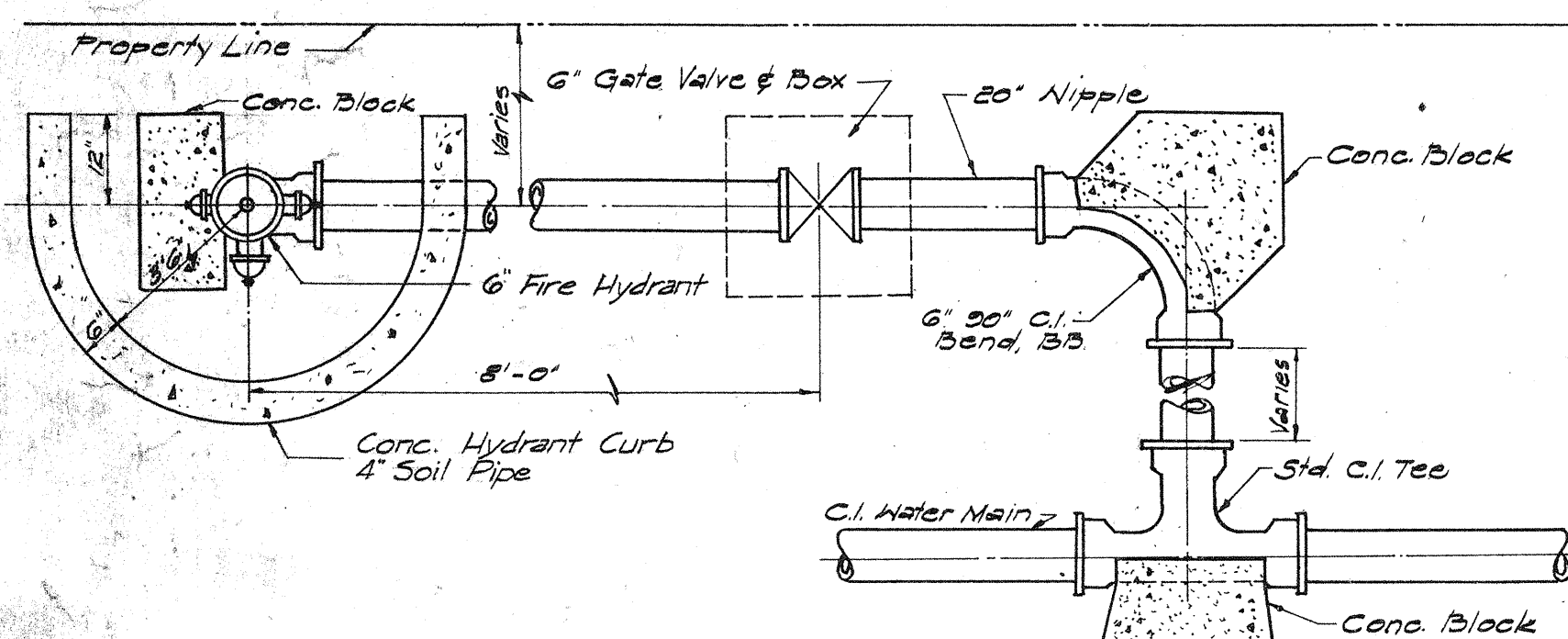
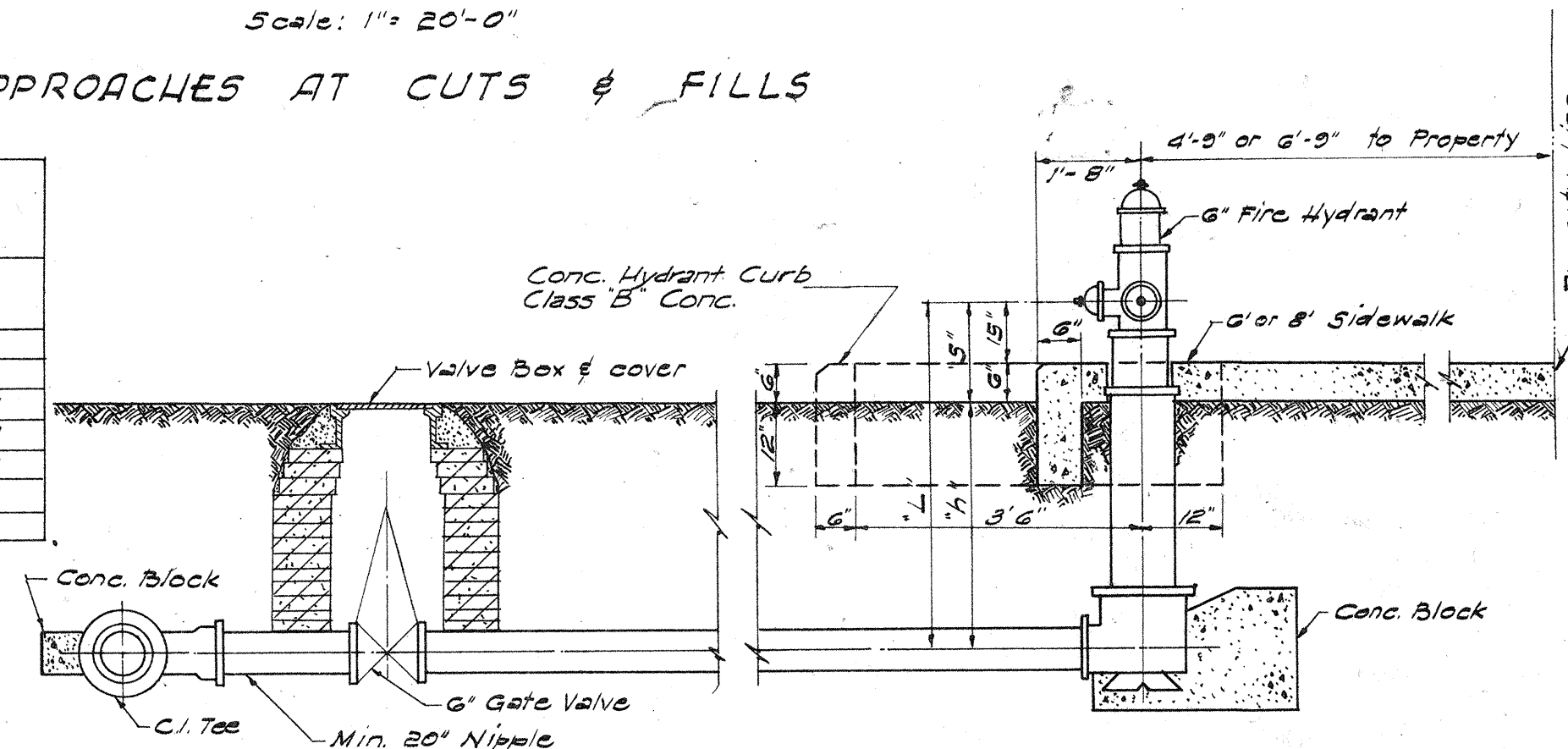




DIA OF PIPE IN INCHES	"4"	"5"	"L"
2"	26"	21"	47"
3"	33"	21"	54"
4"	35"	21"	56"
10"	41"	21"	62"
12"	43"	21"	64"
14"	50"	21"	71"
16"	52"	21"	73"



DIMENSIONS OF CEMENT MASONRY SLOPING SUPPORT		
PIPE DIA. INCHES	W INCHES	T INCHES
4	5	8
6	7	10
8	9	12
10	11	14
12	13	16
14	15	18
16	17	20

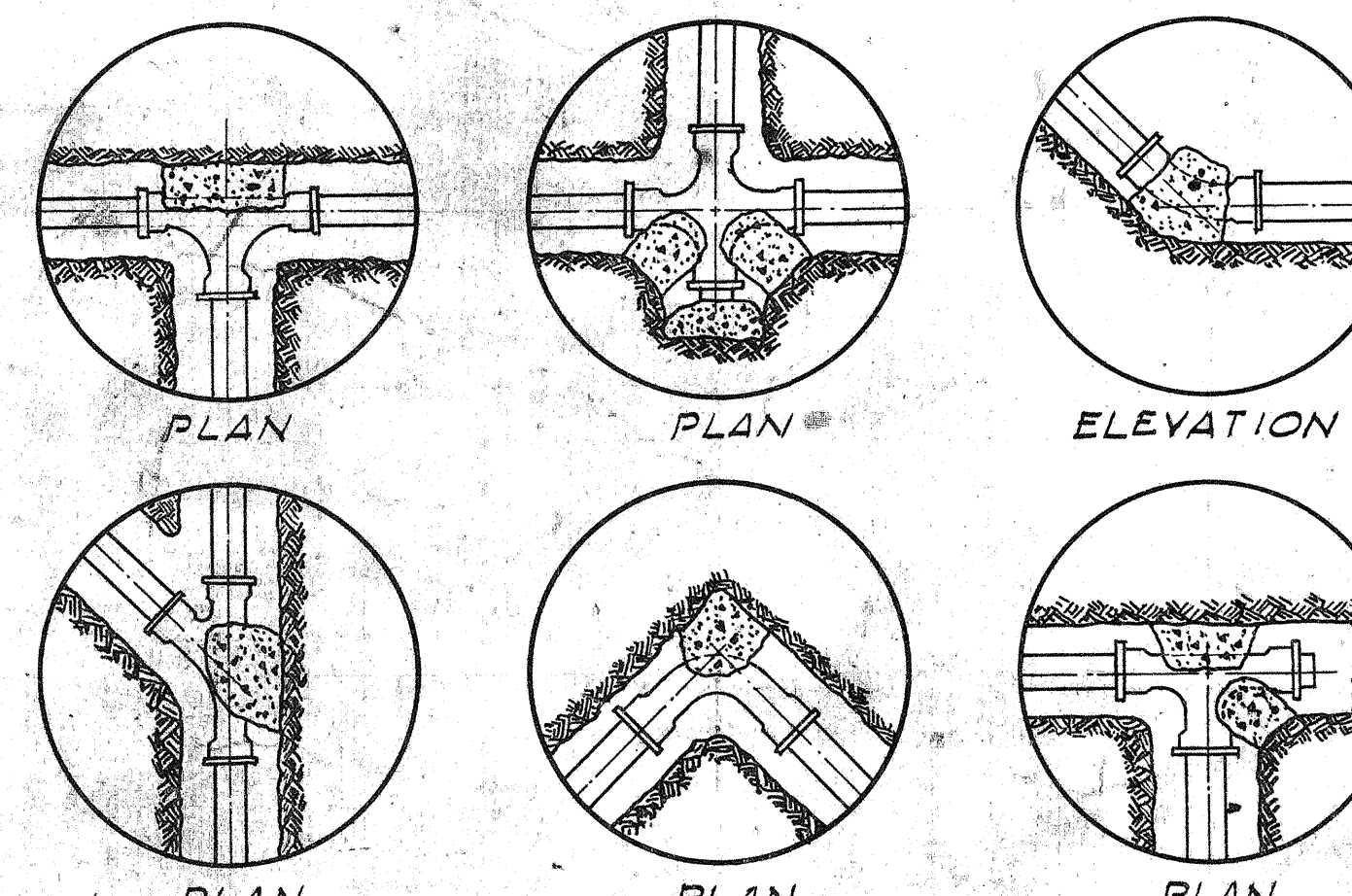
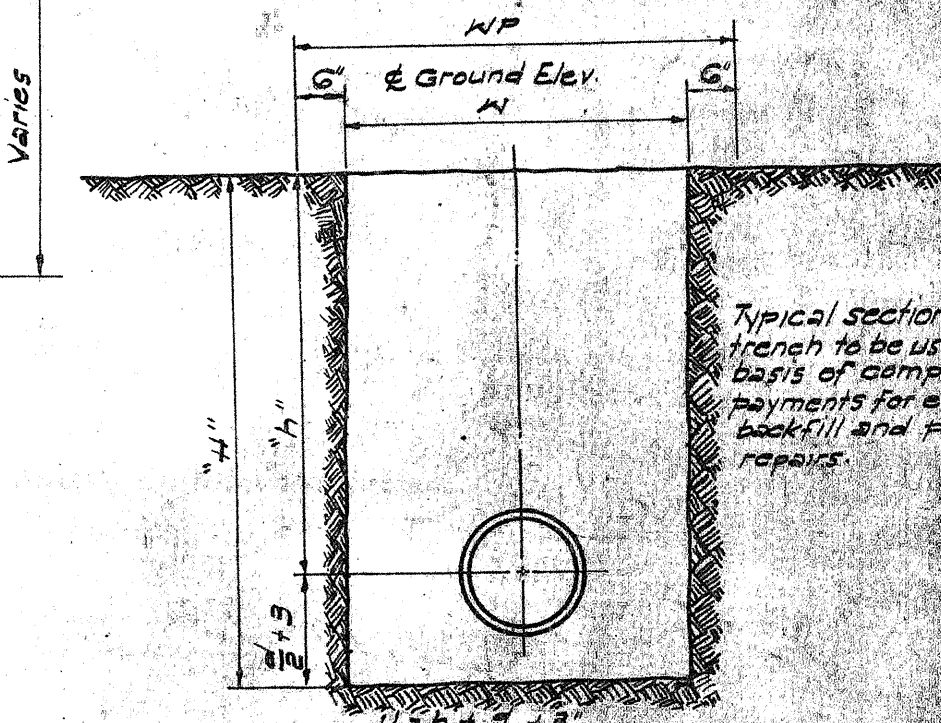
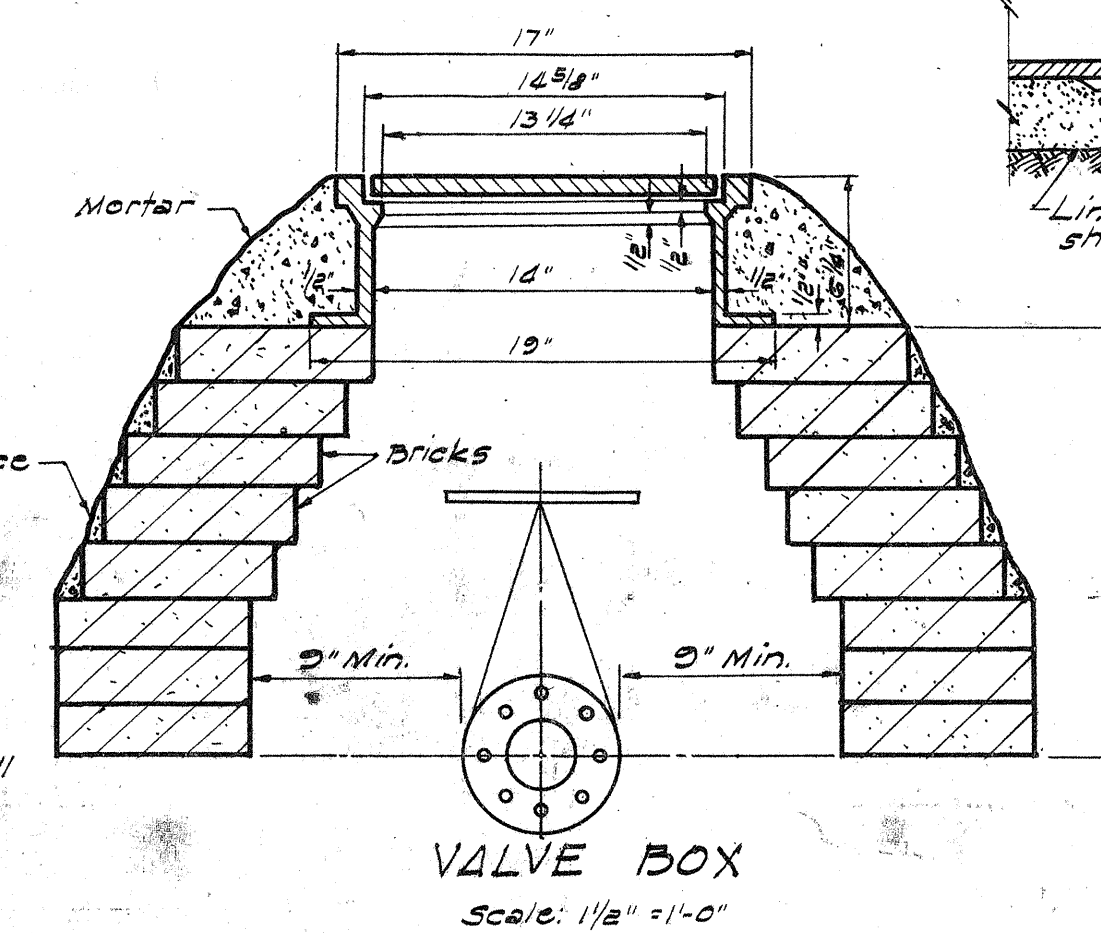
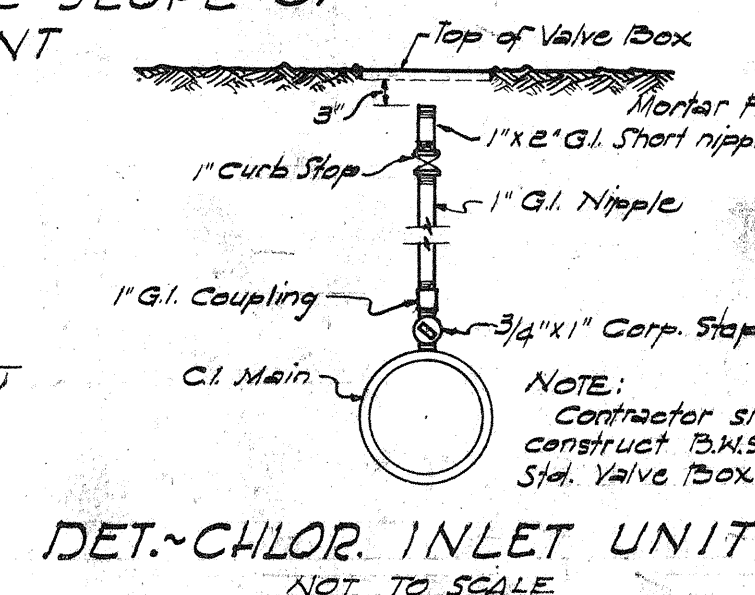
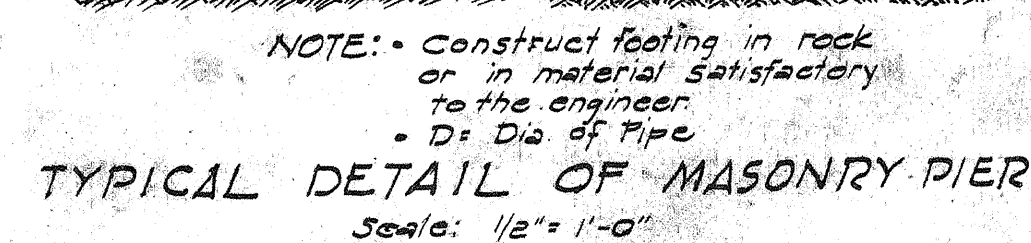
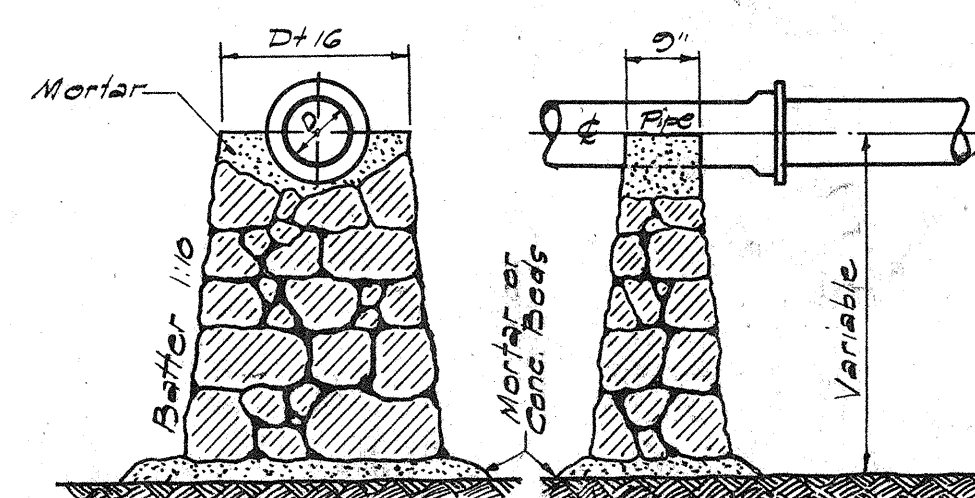
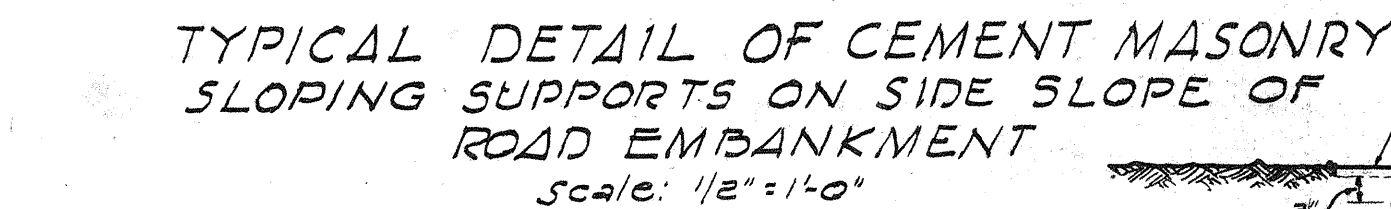
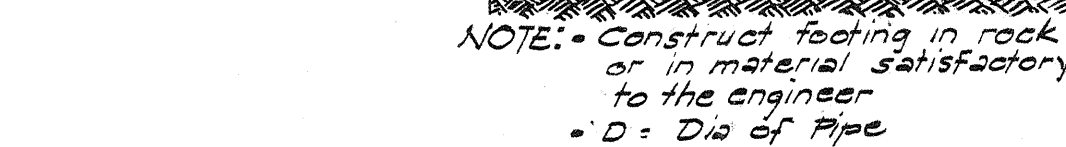
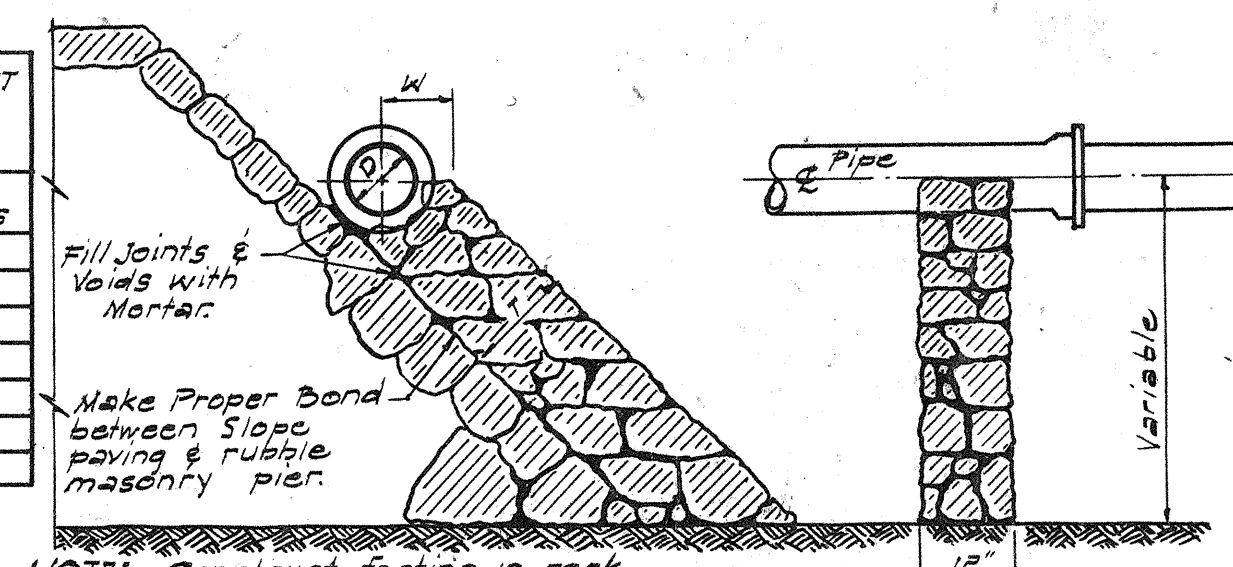


Table of areas in square feet at thrust block in vertical contact with soil of Varying Bearing Values, water pressure 150 pounds per square inch.

	Tees, Bend Ends				90° Bend				45° Bend				22½° Bend			
Size	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d
4"	2.5	1.6	1.0	1.0	3.5	2.0	1.5	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
6"	5.0	2.5	2.0	1.5	7.0	3.5	2.5	2.0	4.0	2.0	1.5	1.0	2.0	1.0	1.0	1.0
8"	9.0	4.5	3.5	2.0	12.0	6.0	4.5	3.0	7.0	3.5	2.5	1.5	4.0	2.0	1.5	1.0
10"	14.0	7.0	5.5	3.5	20.0	10.0	7.5	5.0	11.0	5.5	4.0	3.0	6.0	3.0	2.0	1.5

CONDITION OF SOIL				
a	Sand	1500	Lbs.	per Sq. Ft.
b	Sand & Gravel	2000	"	" " "
c	Sand Gravel & Cemented Clay	5000	"	" " "
d	Shale	6000	"	" " "

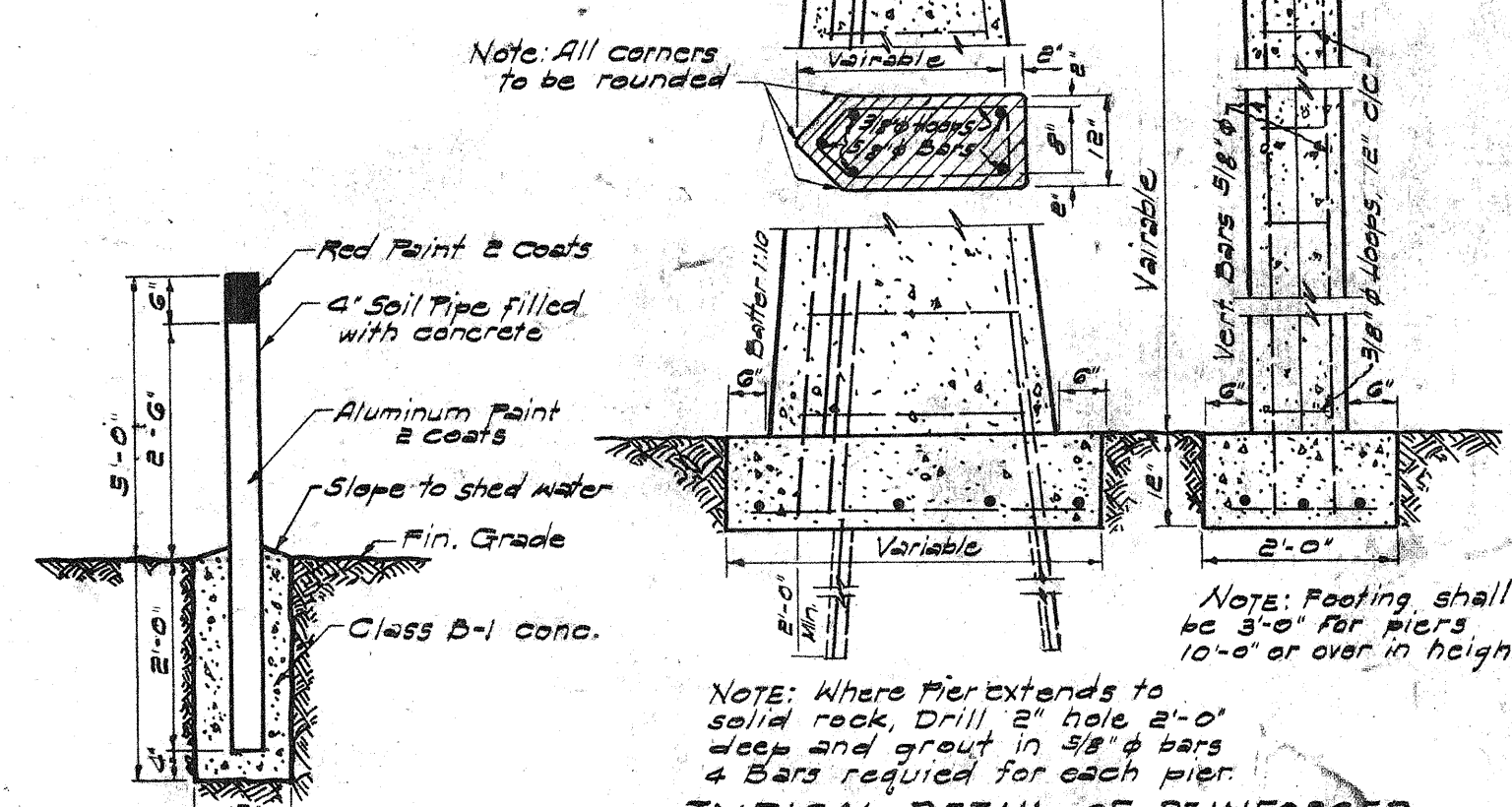
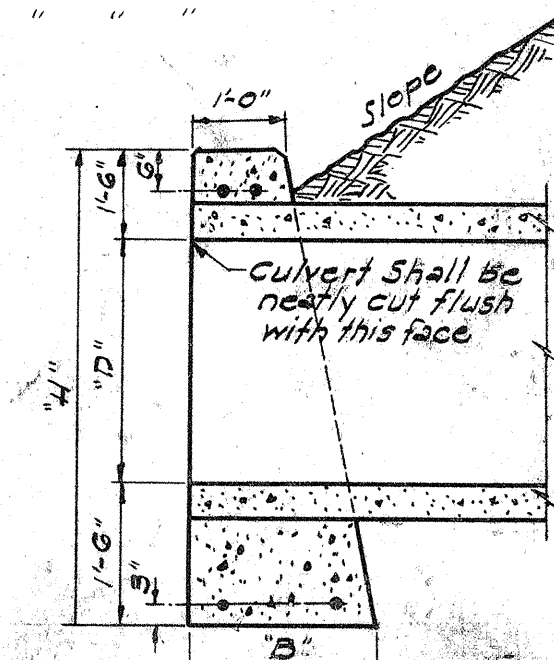
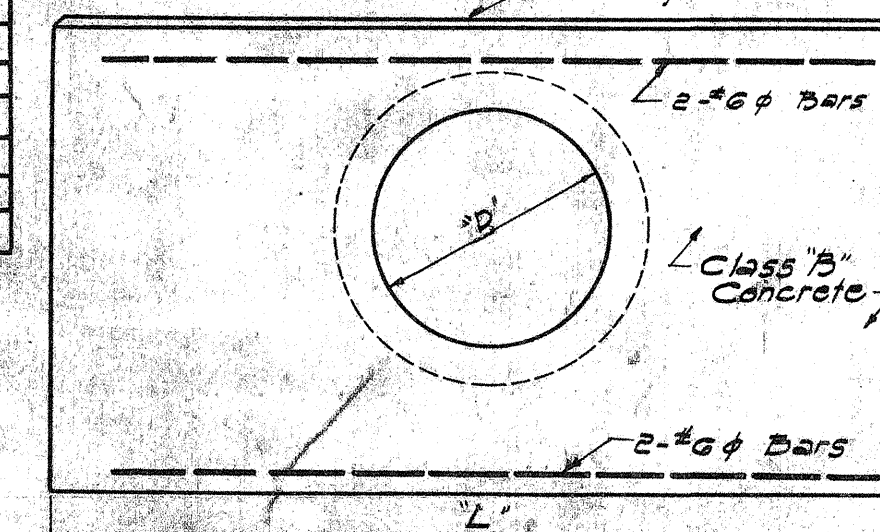
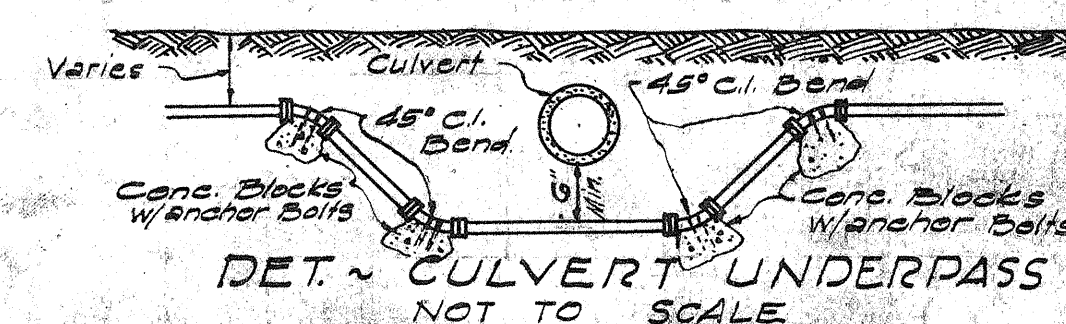


TABLE FOR HEADWALL DIMENSIONS

DATA FOR CONC. HEADWALL				Cost in Place Concrete	Conc. Pipe Culvert	Steel for one Headwall			
"D"	"B"	"L"	"H"	Cu. Yds.	Cu. Yds.	Nz of Bars	Size	Length	Pounds
18	1'-6"	6'-0"	4'-0"	0.92	1.00	4	3/4"	5'-0"	93
24	1'-6"	7'-6"	4'-0"	1.25	1.33	4	3/4"	7'-0"	42
30	2'-0"	9'-0"	5'-0"	1.93	2.17	4	3/4"	8'-6"	51
36	2'-0"	10'-6"	5'-6"	2.45	2.74	4	3/4"	10'-0"	60
42	2'-6"	12'-0"	6'-0"		3.37	4	3/4"	11'-6"	67
48	2'-6"	13'-6"	6'-6"		4.66	4	3/4"	13'-0"	78

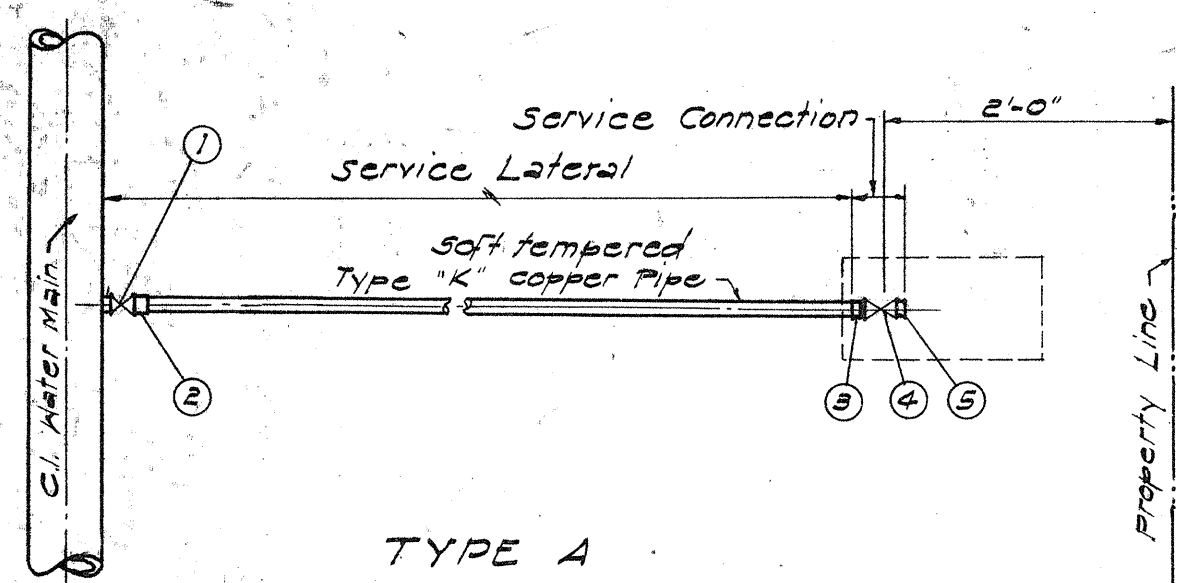


Dia of inches	D2 in inches	"d" in inches
4	16 1/4	26
6	22 1/4	33
8	25 1/4	36
10	30 1/2	41
12	34 1/4	44
14	39	49
16	41	51

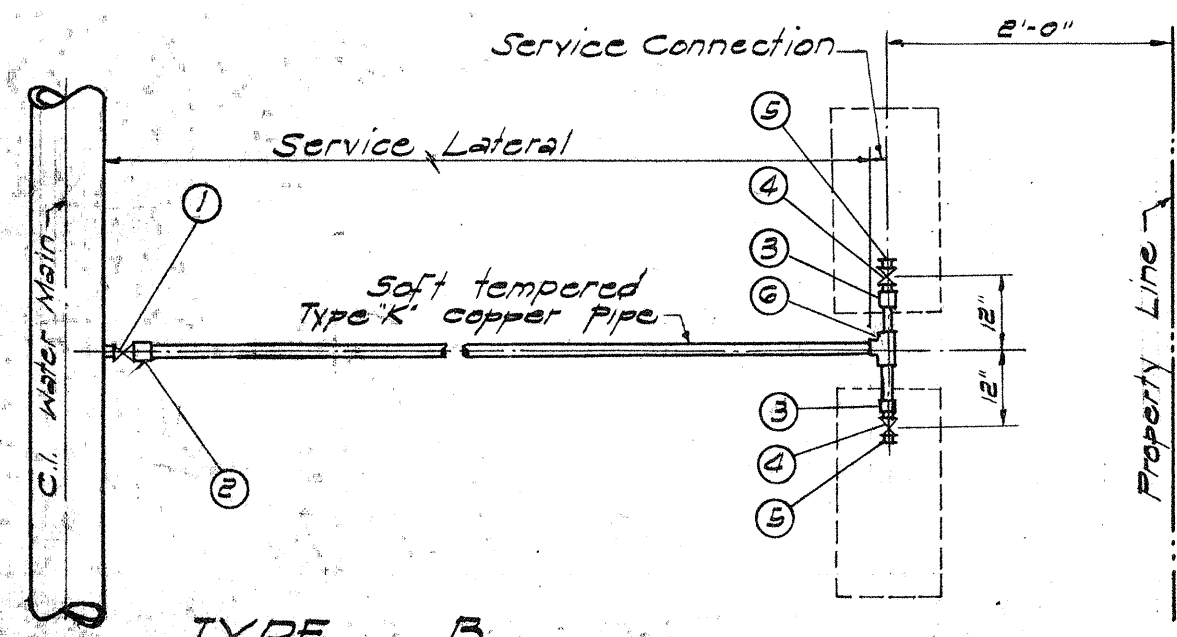
SHEET NO. 2 OF 11 SHEETS

BOARD OF WATER SUPPLY
COUNTY OF HAWAII
STANDARD DETAILS

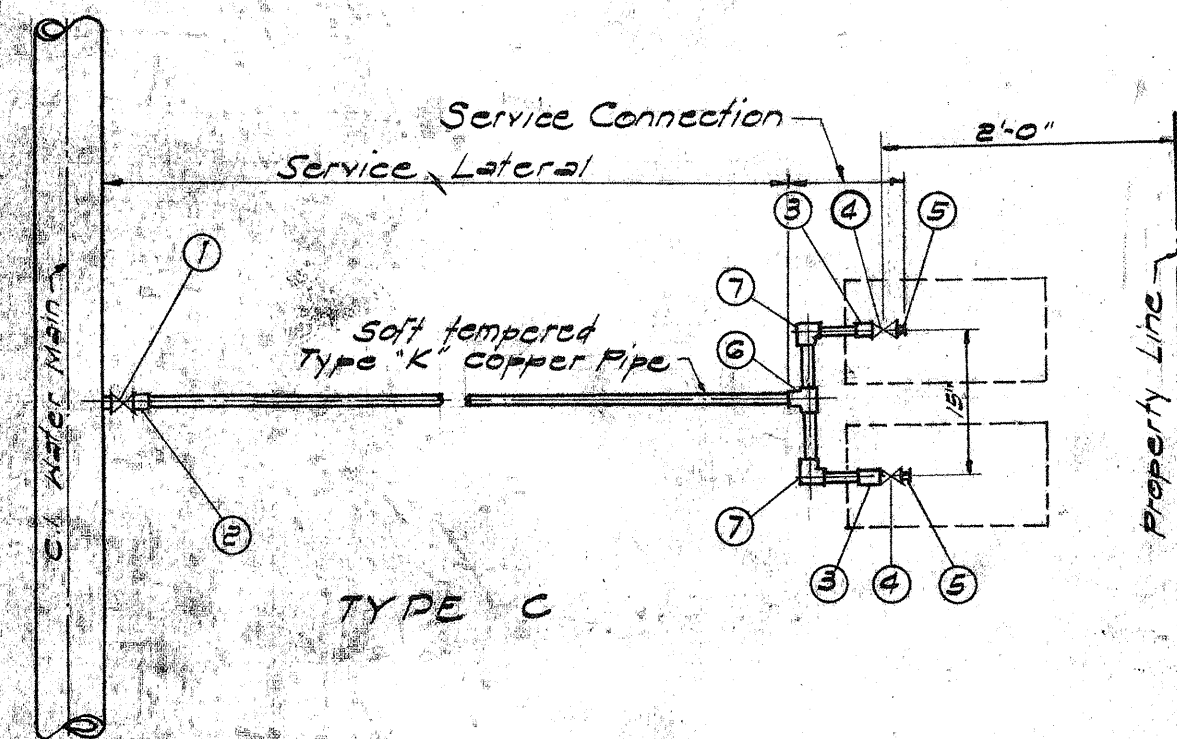
SCALE: AS SHOWN DATE: JANUARY, 1963
APPROVED: *A. Kusinato*
MANAGER-ENGINEER, BOARD OF WATER SUPPLY



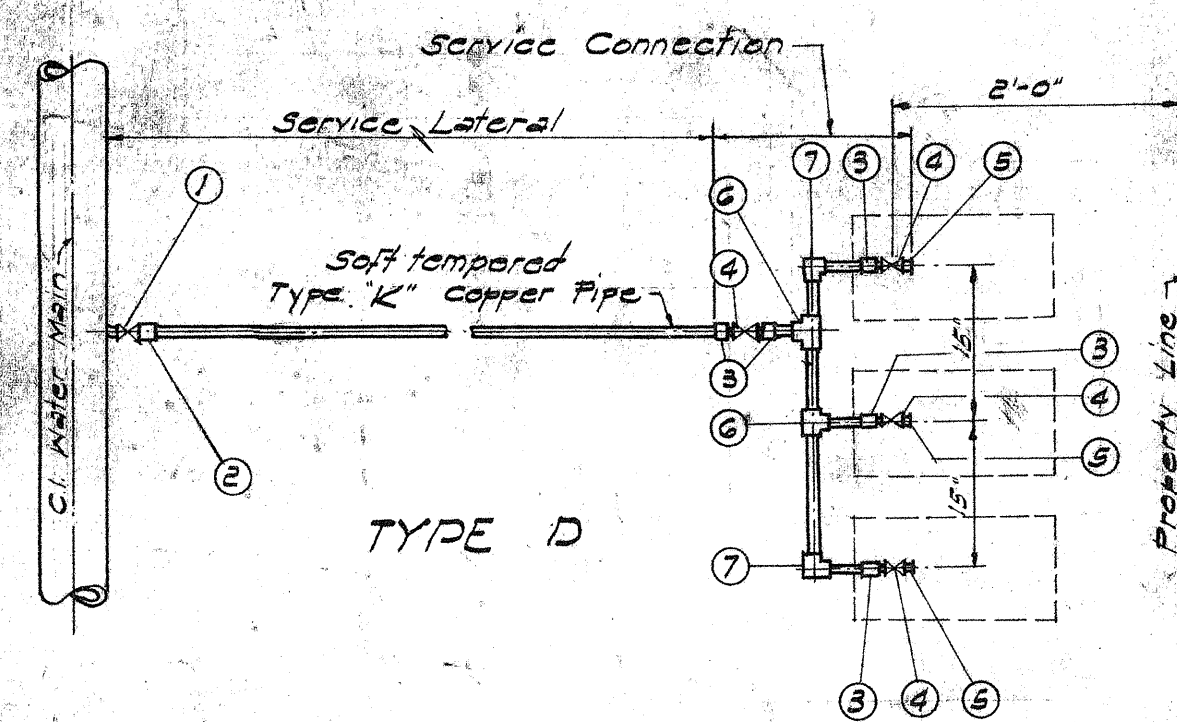
TYPE A



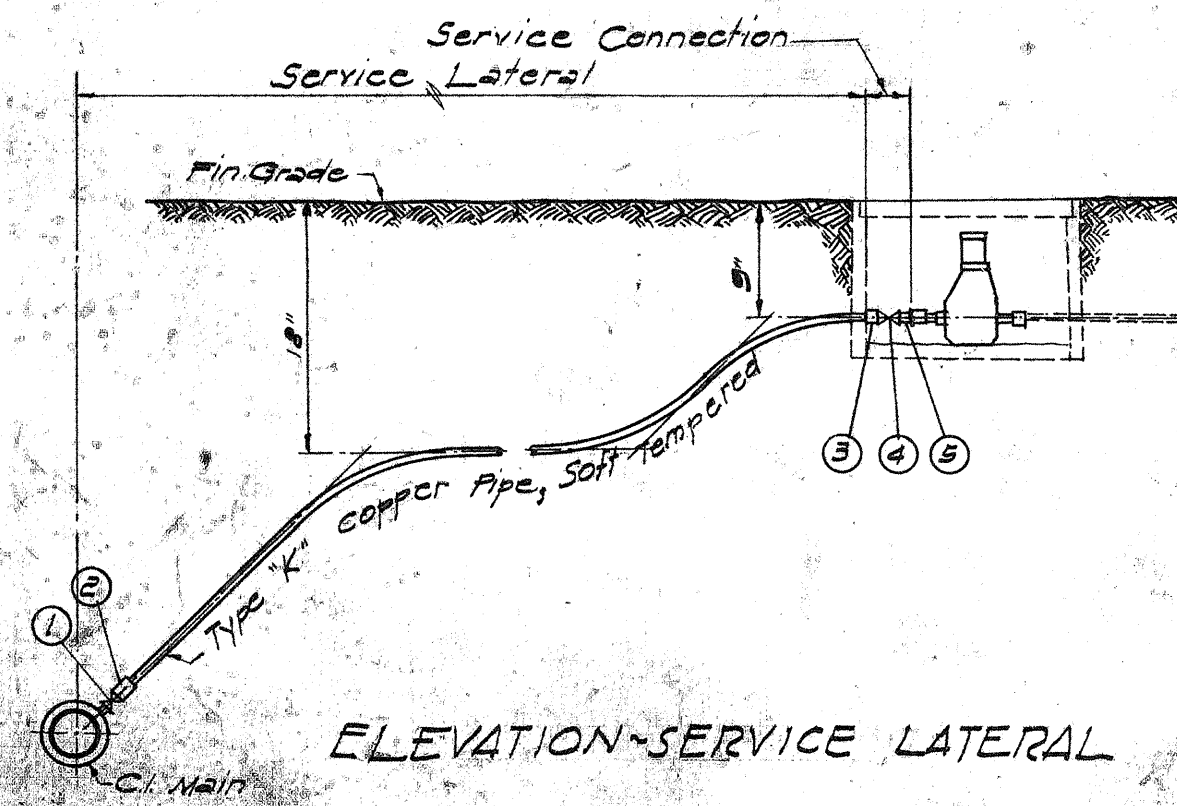
TYPE B



TYPE C



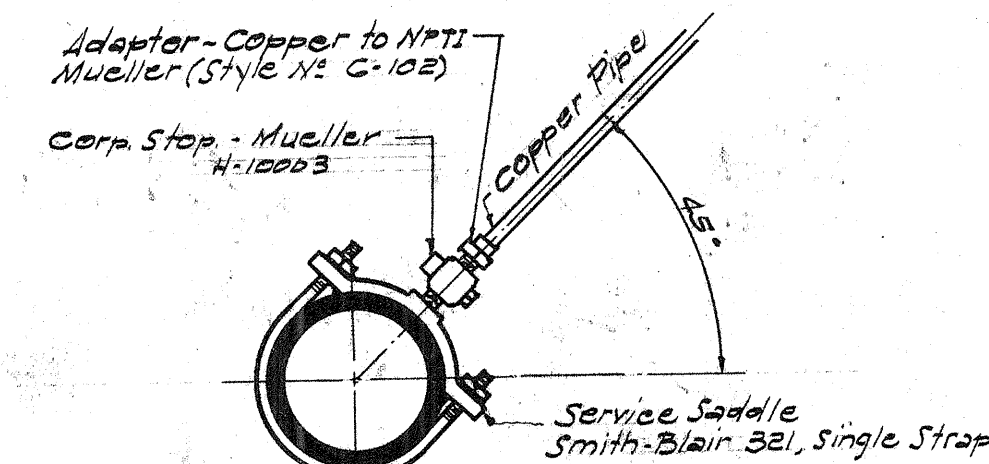
TYPE D



ELEVATION-SERVICE LATERAL

NOTE:
The Board of Water Supply reserves the right to relocate the service laterals to a location other than that shown on the plans due to the unusual ground condition and to change the size & type of service lateral due to this relocation.

NOTE:
The contractor shall excavate the area at the end of the service connection for the installation of the meter box. This area shall be of sufficient depth, length and width to receive the Standard Board of Water Supply meter box.

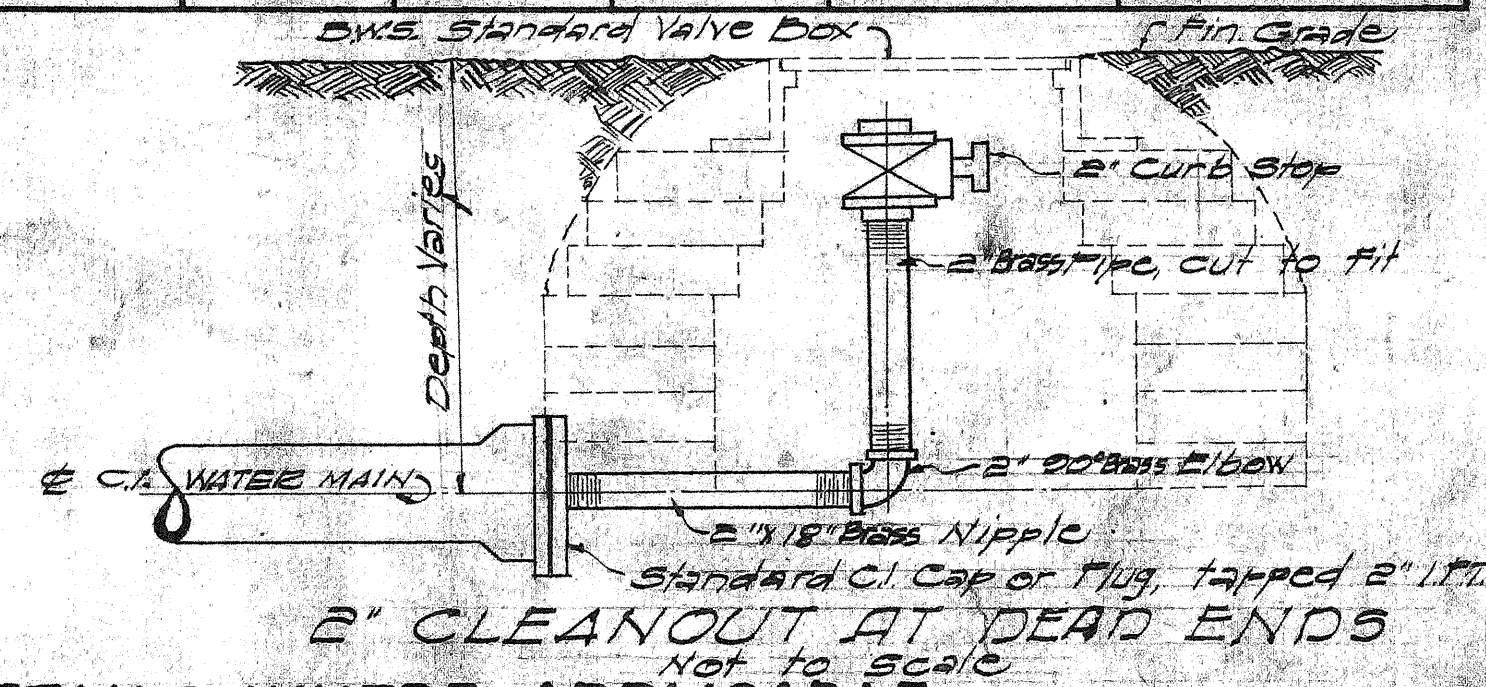


TYPICAL DETAIL - INSTALLATION OF SERVICE SADDLE
Not to Scale

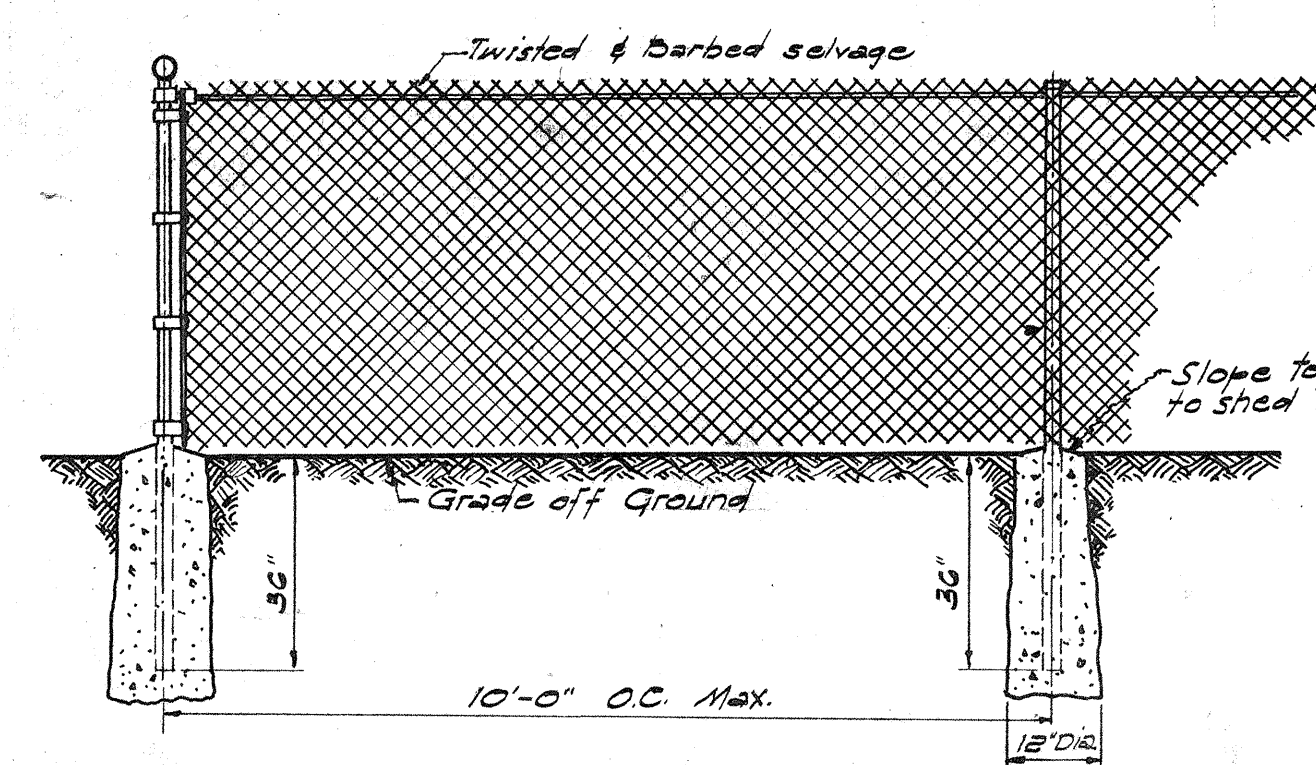
Note: Service Saddle required for 4", 3" & 2 1/4" C.I. Pipe and for all sizes of asbestos cement pipe & Ductile Iron Pipe.

SERVICE LATERAL & SERVICE CONNECTION MATERIAL SCHEDULE															
TYPE	SIZE	SERVICE LATERALS				SERVICE CONNECTIONS									
		Curb Stop Mueller H-10003	Adapter Style C-102 Copper to NPT	Copper Pipe Type 'K'	Adapter Style C-101 Copper to NPT	Curb Stop Mueller H-10203	Brass Bushing	Rad Tee, Style T-300 Copper to Copper	20" Elbow, Style E-200 Copper to Copper						
ITEM NO.		SIZE	QUANT.	SIZE	QUANT.	SIZE	QUANT.	SIZE	QUANT.	SIZE	QUANT.	SIZE	QUANT.	SIZE	QUANT.
A	1"	3/4" x 1"	1	1"	1	1"	1	3/4" x 1"	1						
	1 1/4"	1" x 1 1/4"	1	1 1/4"	1	1 1/4"	1	1" x 1 1/4"	1						
	1 1/2"	1 1/4" x 1 1/2"	1	1 1/2"	1	1 1/2"	1	1 1/4" x 1 1/2"	1						
	2"	1 1/2" x 2"	1	2"	1	2"	1	1 1/2" x 2"	1						
B	1 1/4"	1" x 1 1/4"	1	1 1/4"	1	1 1/4"	1	1" x 1 1/4"	1						
	1 1/2"	1 1/4" x 1 1/2"	1	1 1/2"	1	1 1/2"	1	1 1/4" x 1 1/2"	1						
	2"	1 1/2" x 2"	1	2"	1	2"	1	1 1/2" x 2"	1						
C	1 1/4"	1" x 1 1/4"	1	1 1/4"	1	1 1/4"	1	1" x 1 1/4"	1						
	1 1/2"	1 1/4" x 1 1/2"	1	1 1/2"	1	1 1/2"	1	1 1/4" x 1 1/2"	1						
	2"	1 1/2" x 2"	1	2"	1	2"	1	1 1/2" x 2"	1						
D	1 1/2"	1 1/4" x 1 1/2"	1	1 1/2"	1	1 1/2"	1	1 1/4" x 1 1/2"	1						

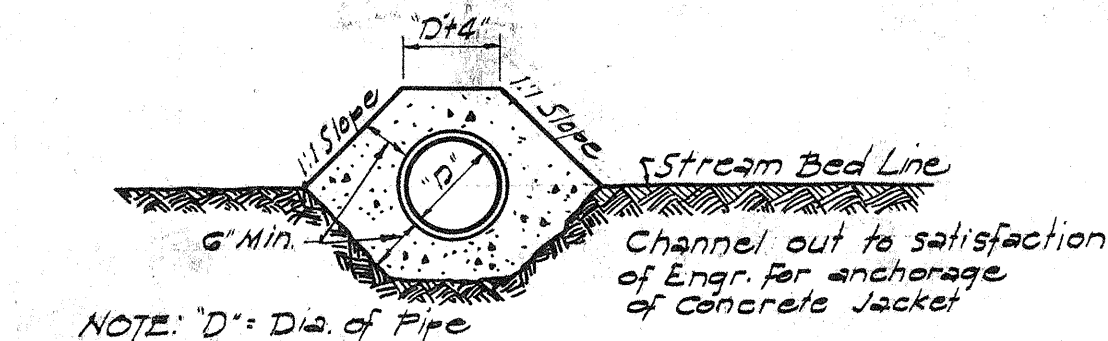
METER SCHEDULE		
TYPE	NO. OF METERS	METER SIZE
A	1	5/8", 1", 1 1/2", 2"
B	2	5/8", 1", 1 1/2"
C	2	5/8", 1", 1 1/2"
D	3	5/8"



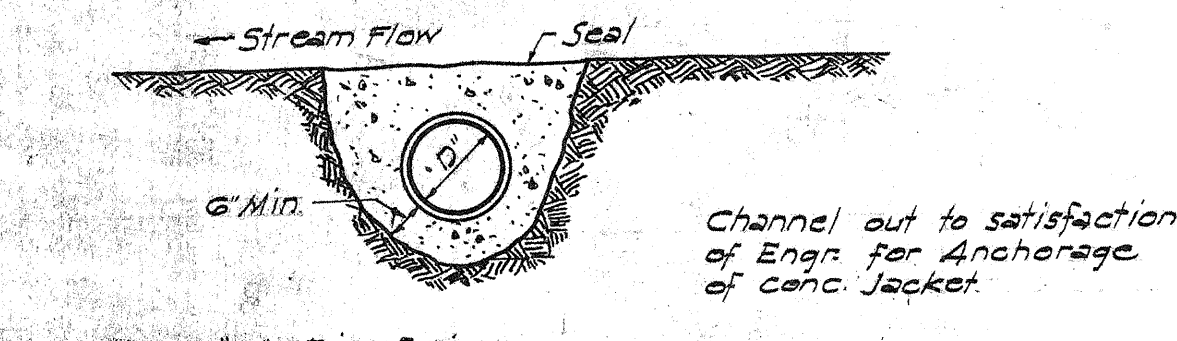
USE DETAILS WHERE APPLICABLE



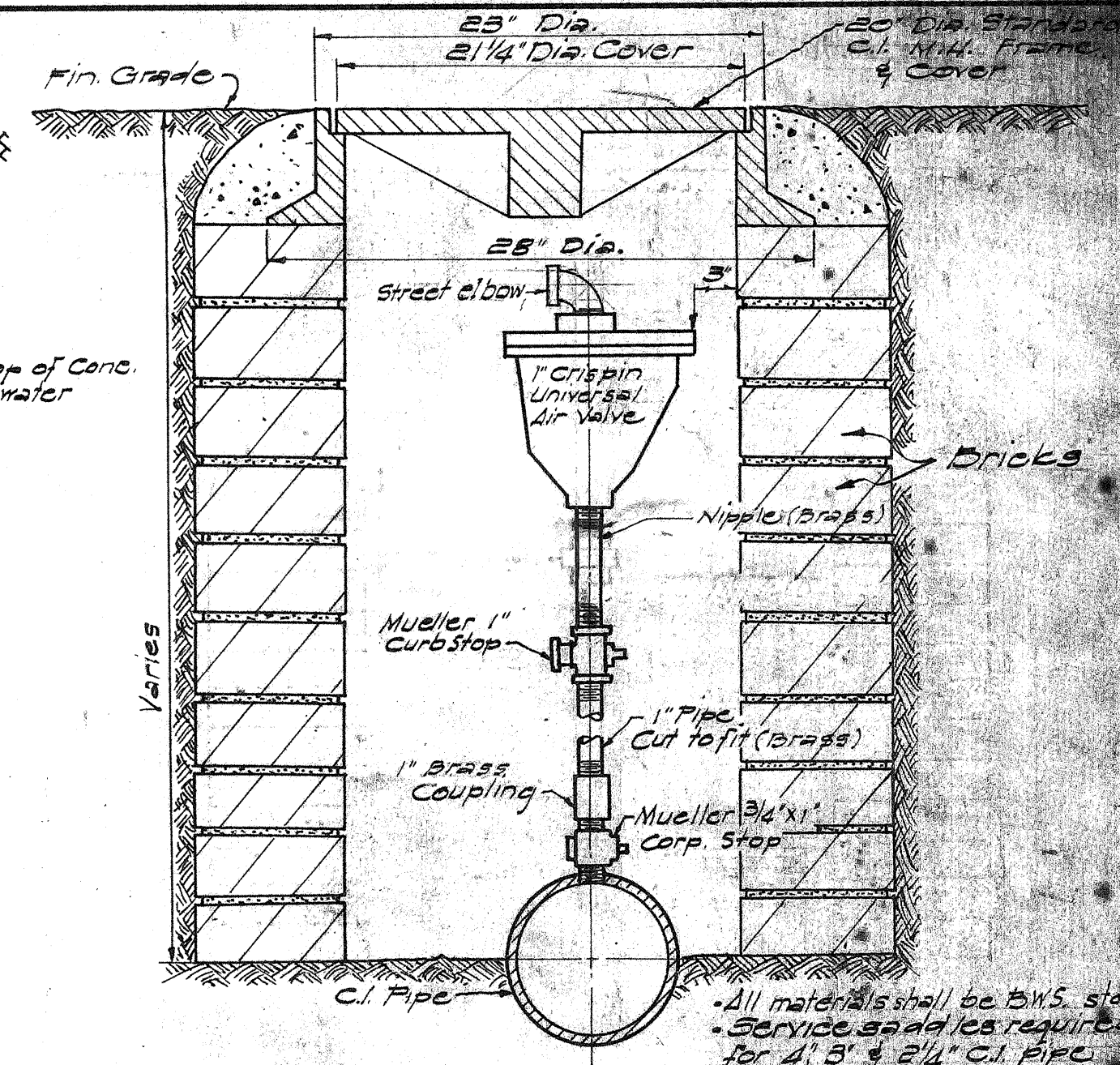
DETAIL - 5' HIGH FENCE



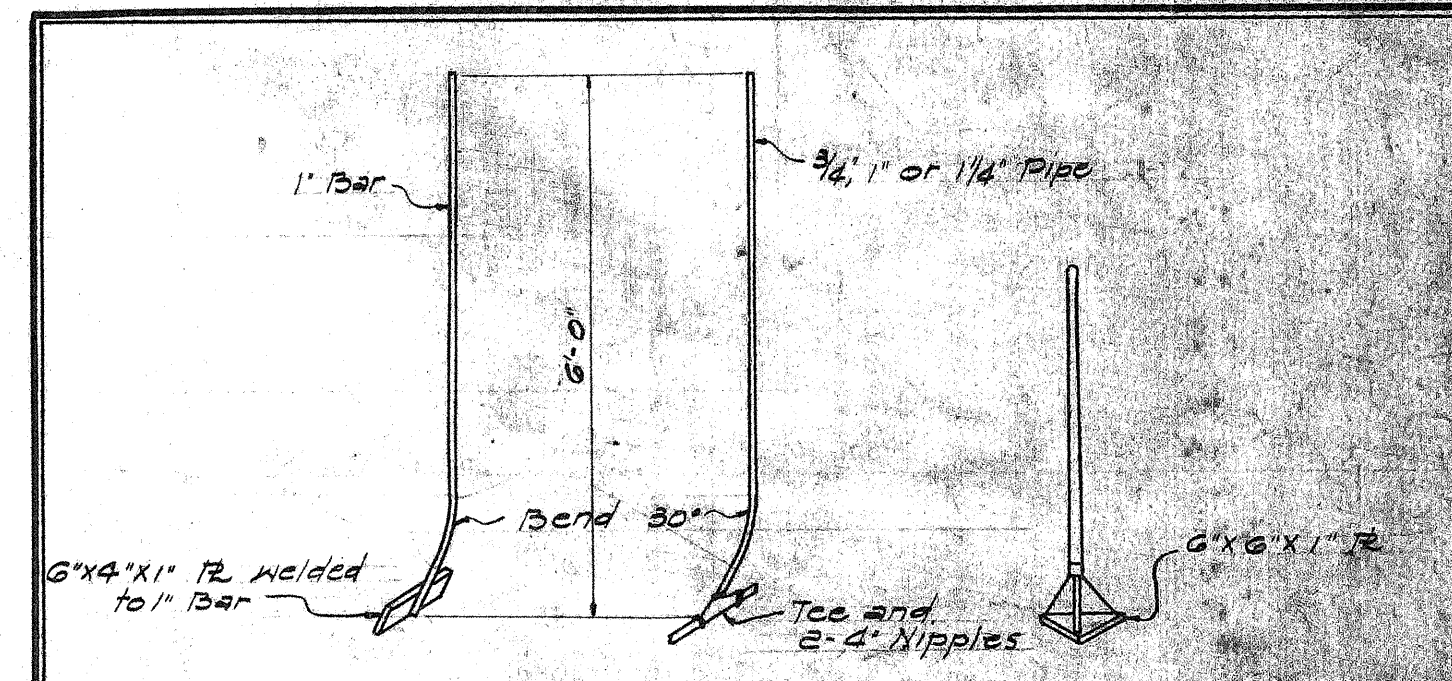
TYPICAL DETAIL OF CONCRETE JACKET FOR PROTECTION OF PIPE ABOVE STREAMBED
Scale: 1/2" = 1'-0"



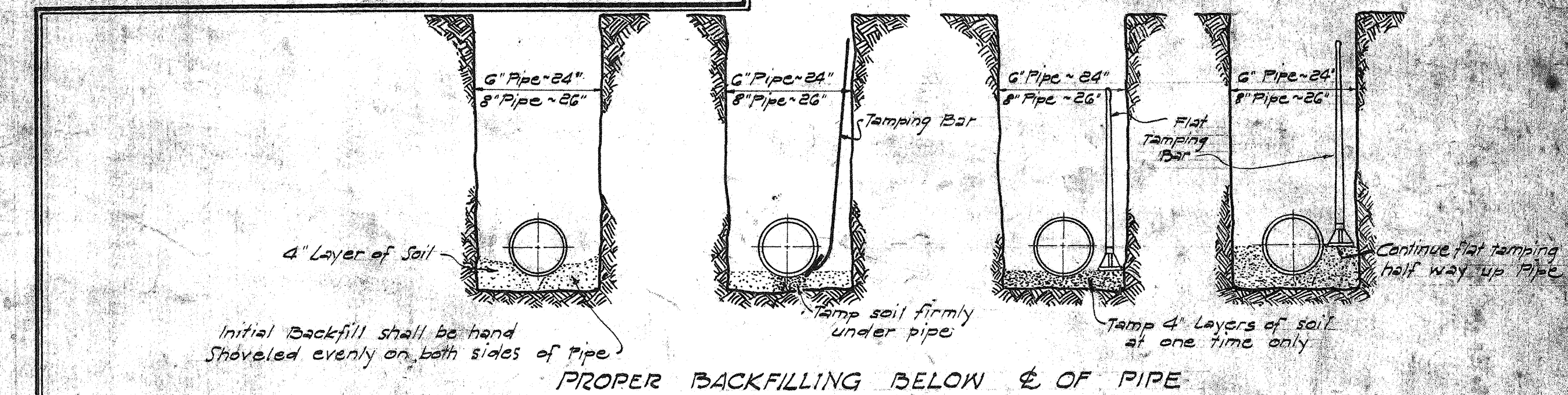
TYPICAL DETAIL OF CONCRETE JACKET FOR PROTECTION OF PIPE BELOW STREAMBED
Scale: 1/2" = 1'-0"



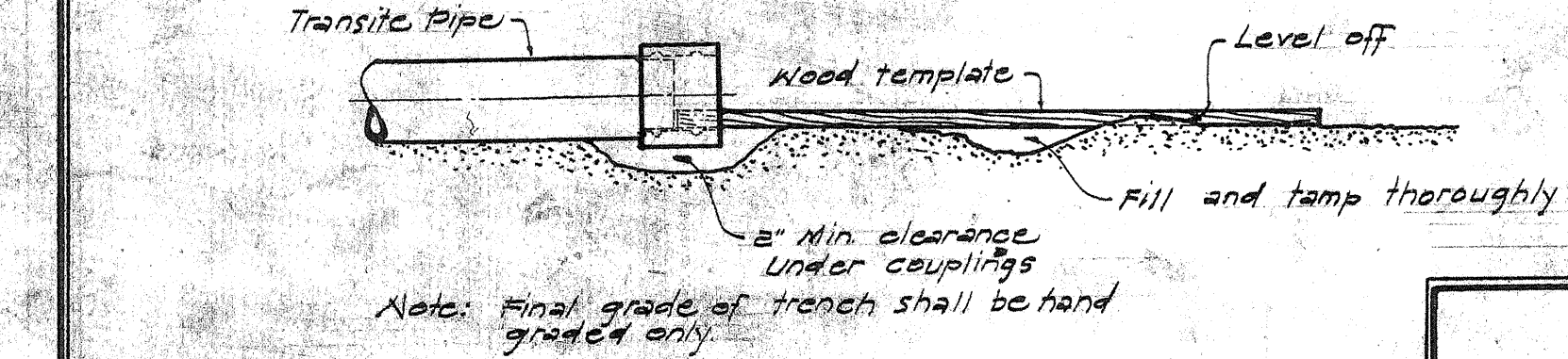
AIR VALVE & BOX
Not to Scale



UNDER PIPE TAMPER & FLAT TAMPER
TAMPING TOOLS



PROPER BACKFILLING BELOW & OF PIPE



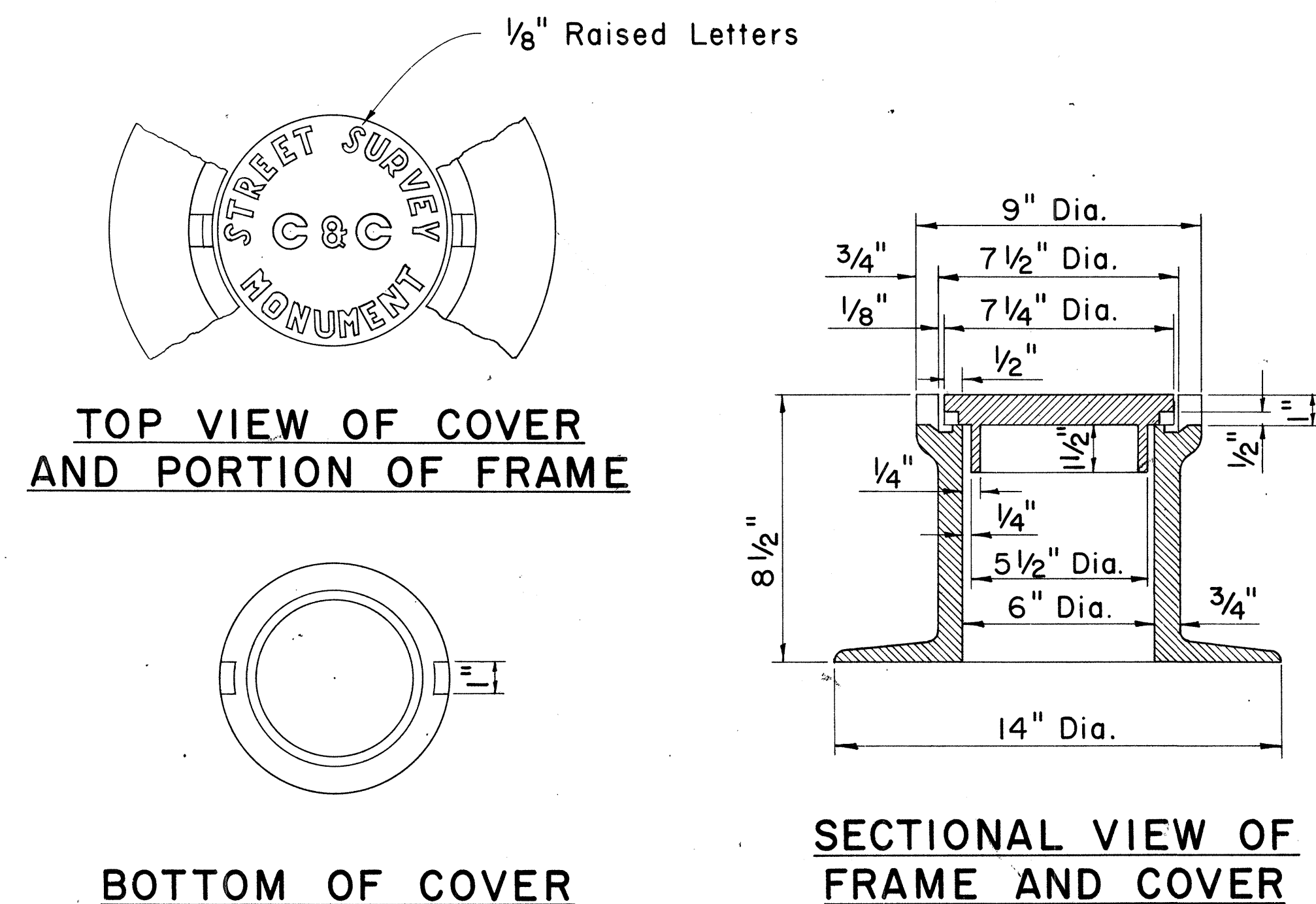
DETAILS - TRANSITE PIPE INSTALLATION
NOT TO SCALE

SHEET NO. 3 OF 11 SHEETS

BOARD OF WATER SUPPLY
COUNTY OF HAWAII
STANDARD DETAILS

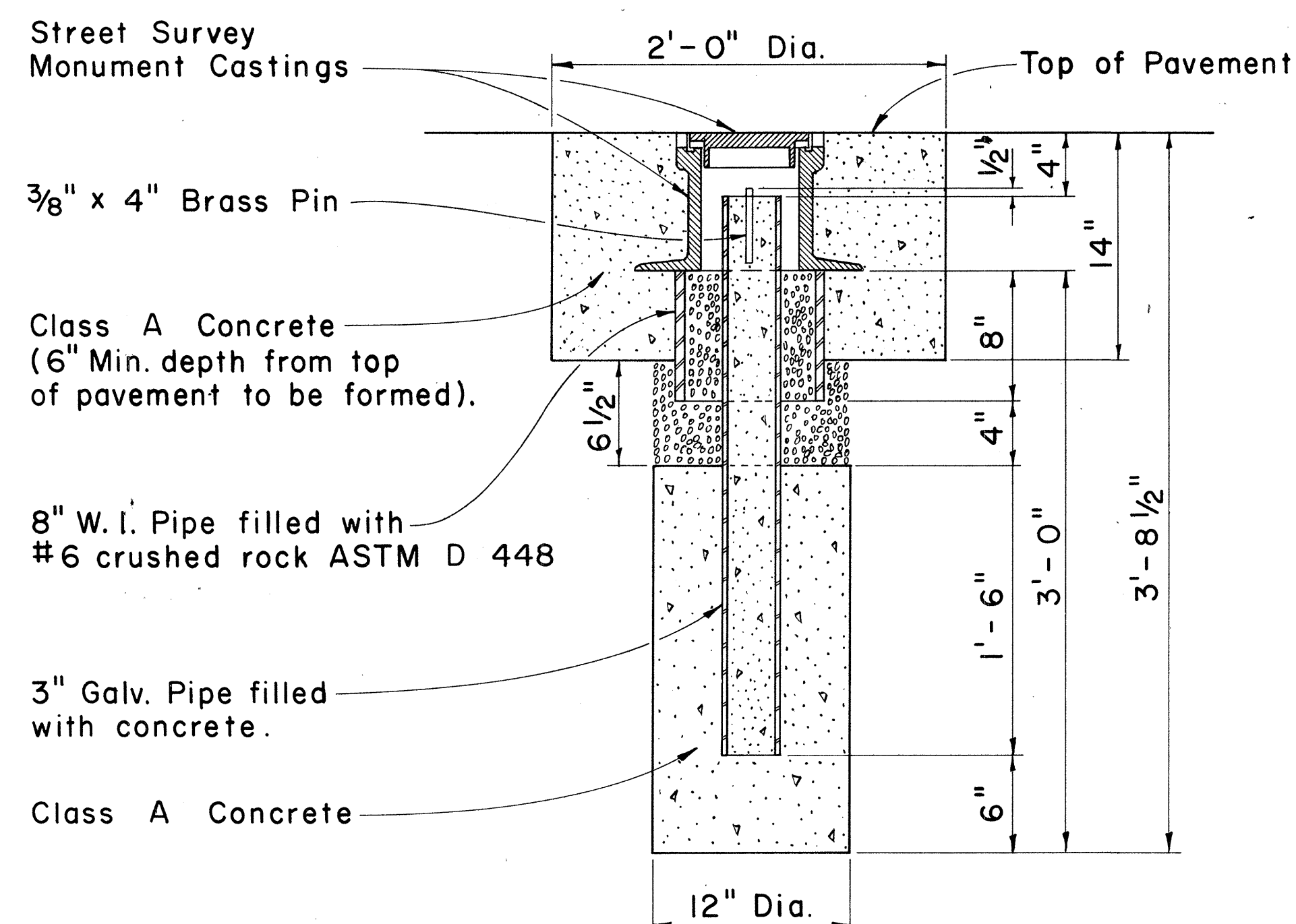
SCALE: AS SHOWN
DATE: JANUARY, 1963
APPROVED: *[Signature]*
MANAGER-ENGINEER, BOARD OF WATER SUPPLY

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	220A-02-72	1972	9	10



STREET SURVEY MONUMENT CASTINGS

Scale: 3" = 1'-0"

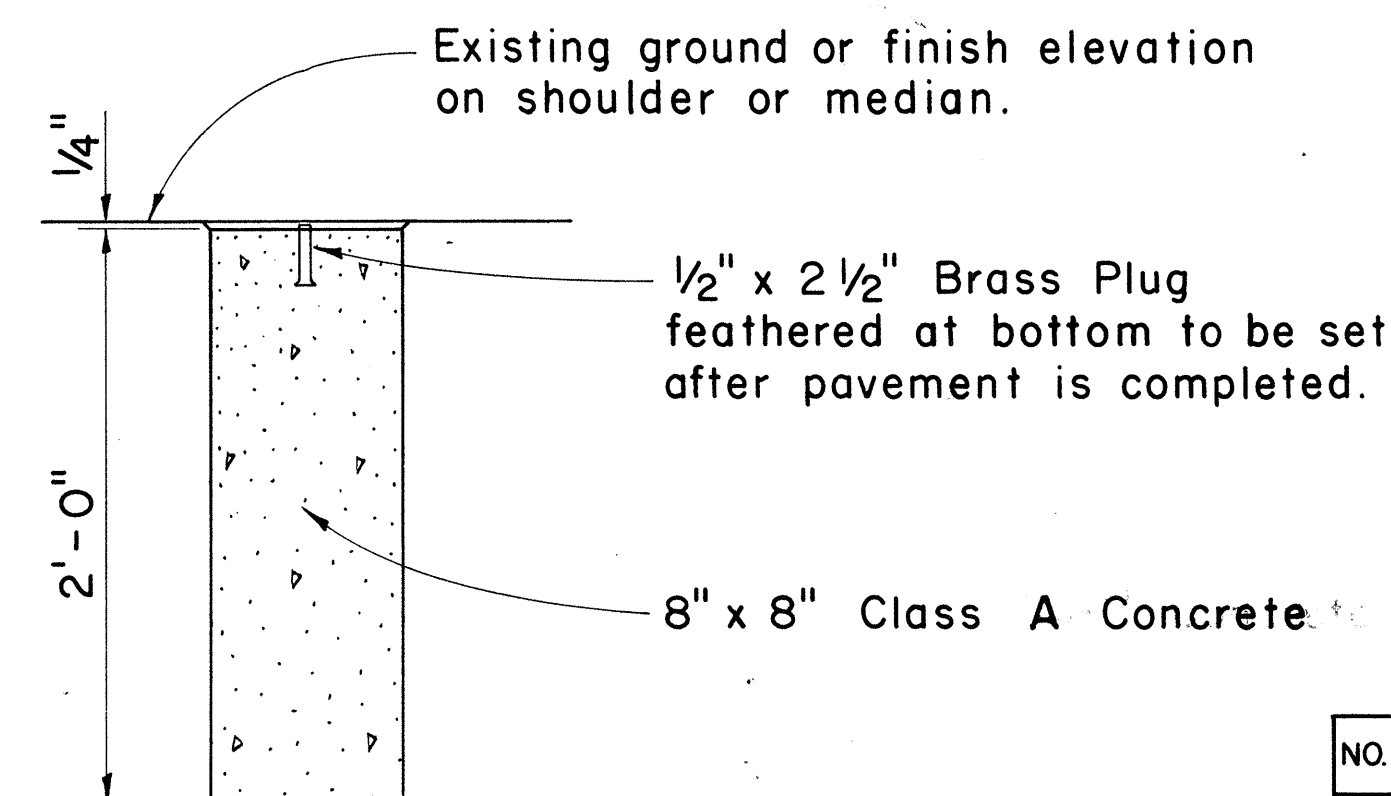


NOTE:

Where the excavation extends into solid rock the depth may be decreased if approved by the Engineer.

STREET SURVEY MONUMENT

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



DETAIL FOR CENTERLINE AND REFERENCE SURVEY MONUMENT

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

APPROVAL RECOMMENDED:

M. J. J. J. 12-4-69
HIGHWAY DESIGN ENGINEER DATE

APPROVED:

M. J. J. J. 12-10-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

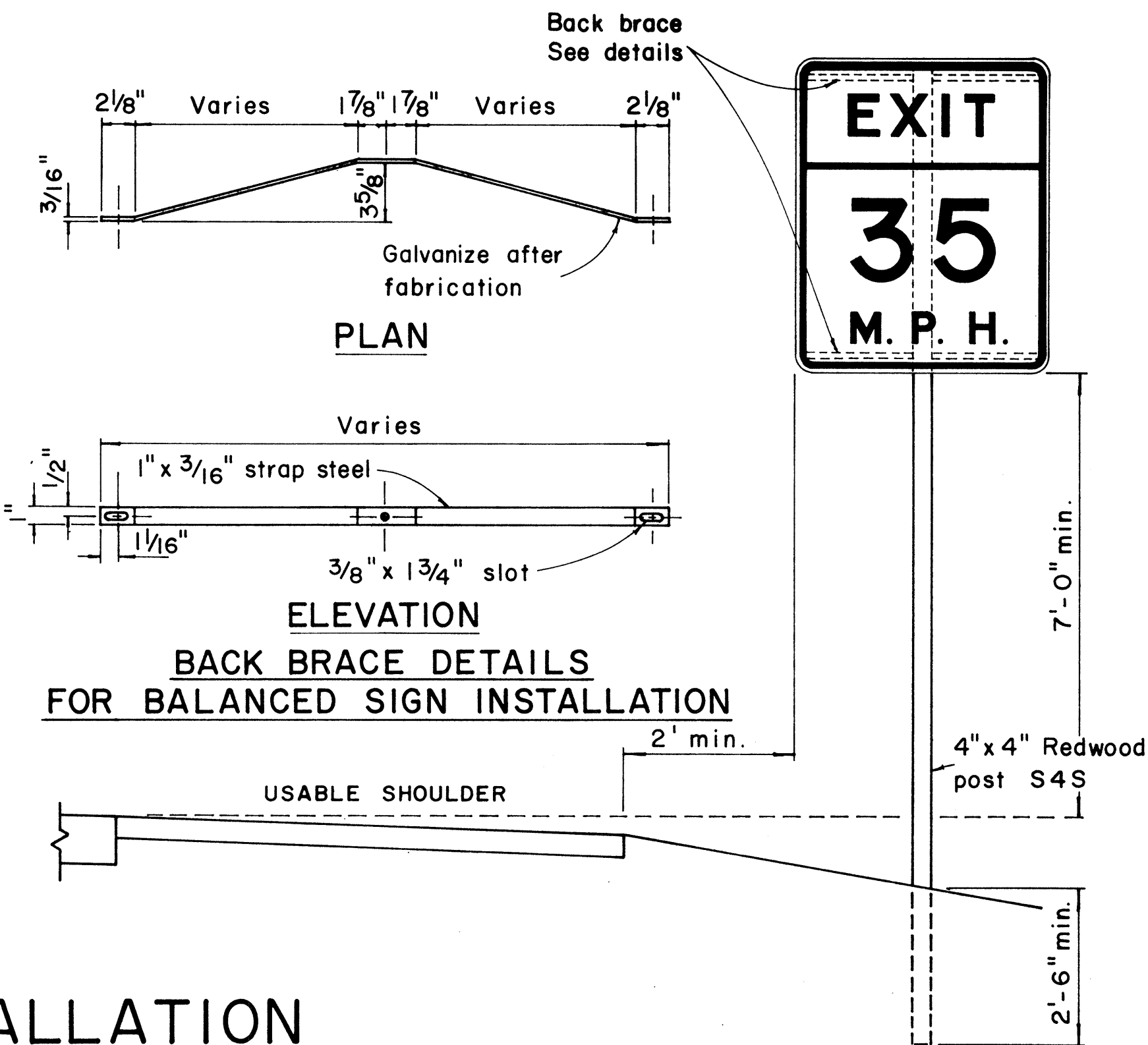
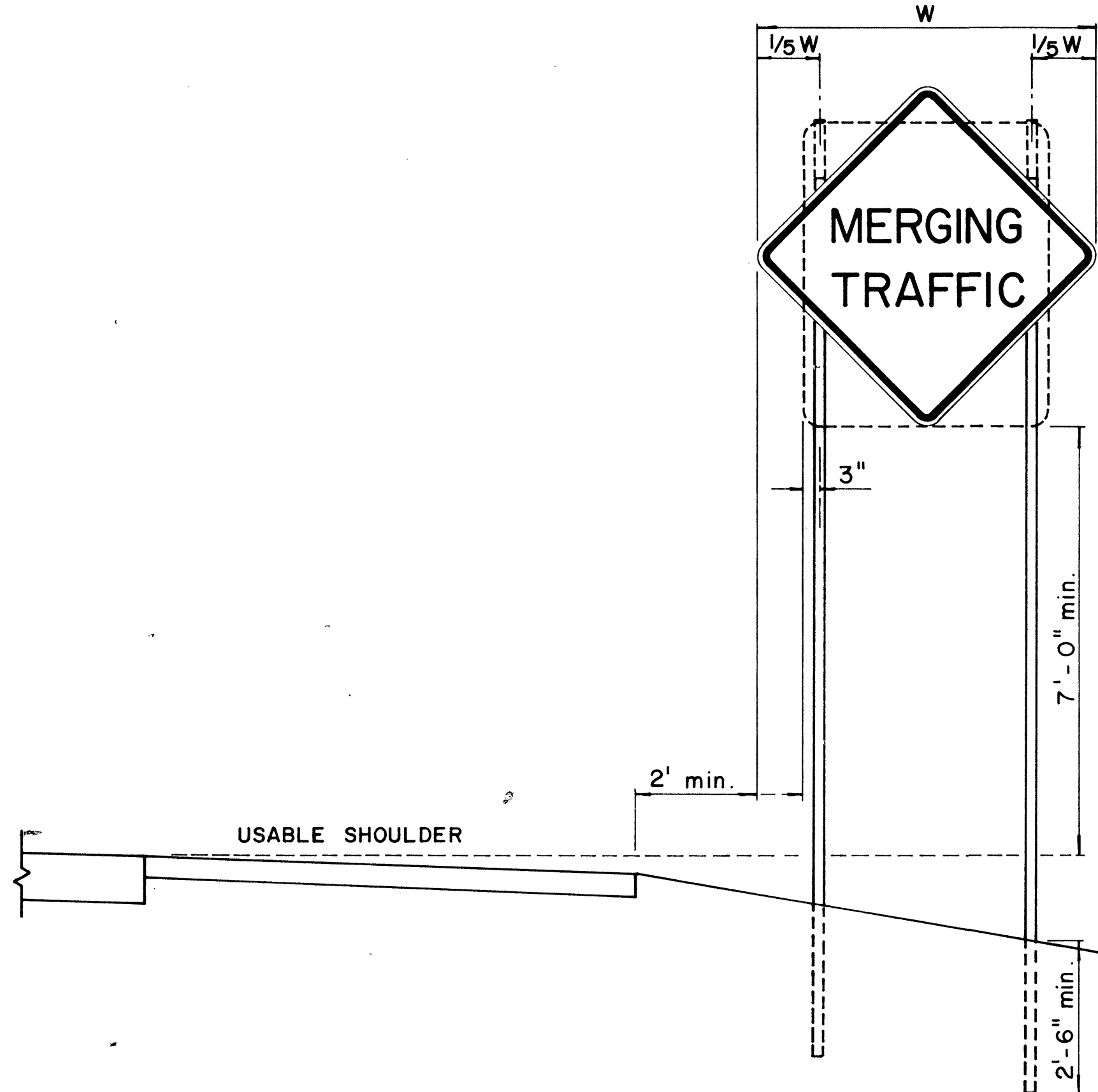
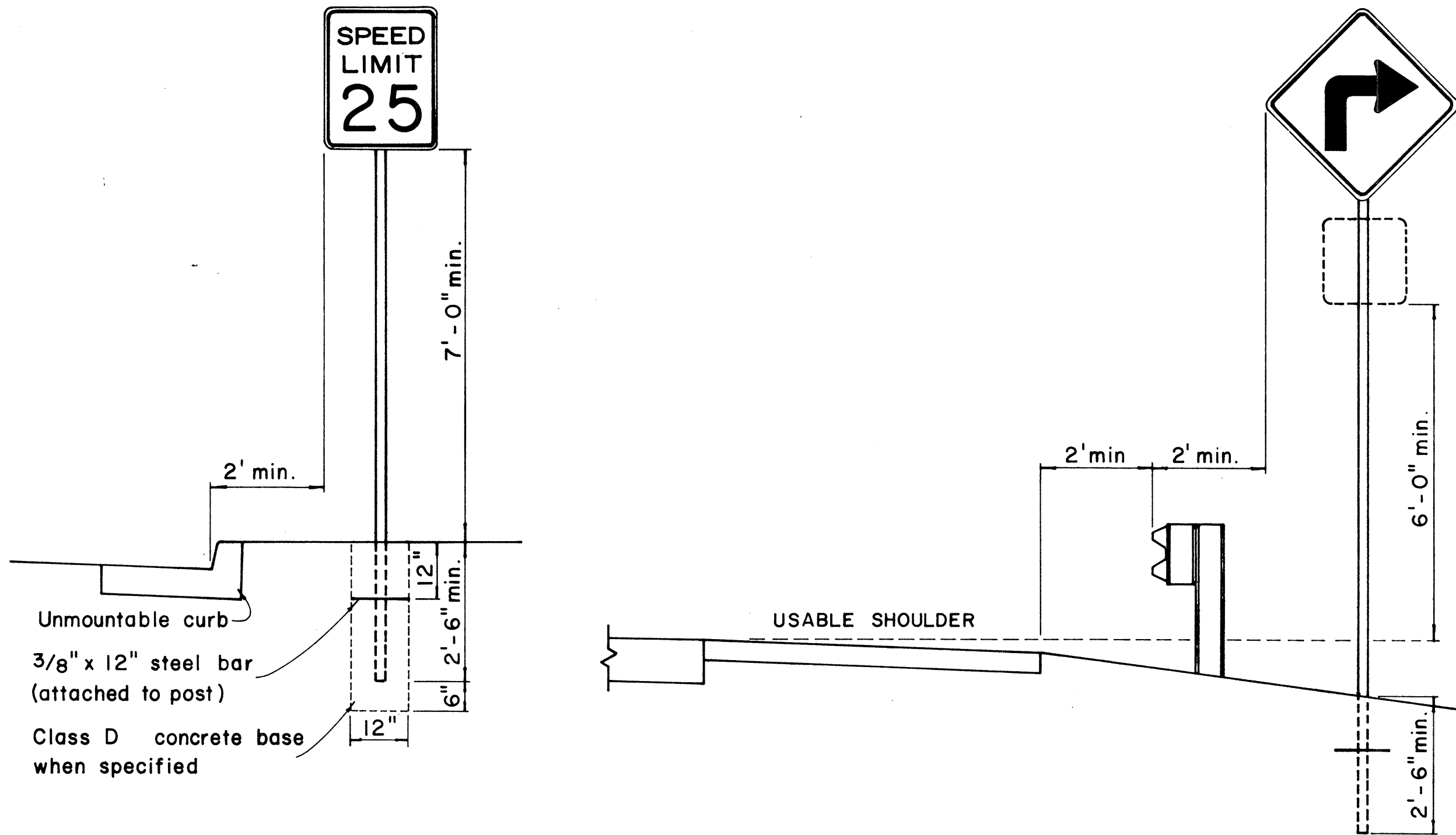
STANDARD DETAILS

CENTERLINE, REFERENCE SURVEY
AND C & C STREET SURVEY
MONUMENTS

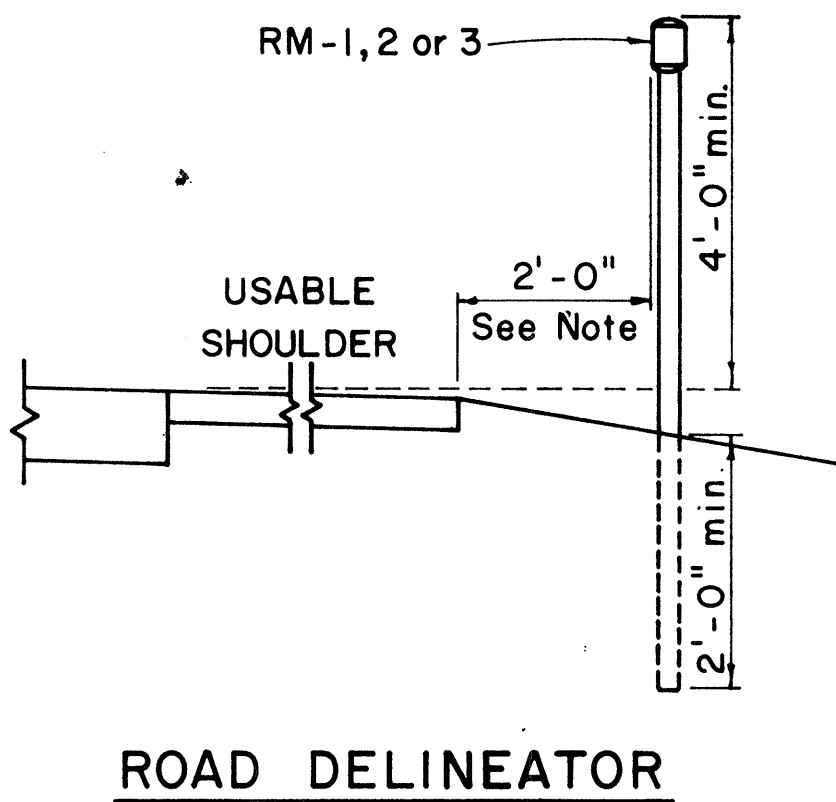
Scale: As Shown

SHEET No. 4 OF 11 SHEETS DD 613.1

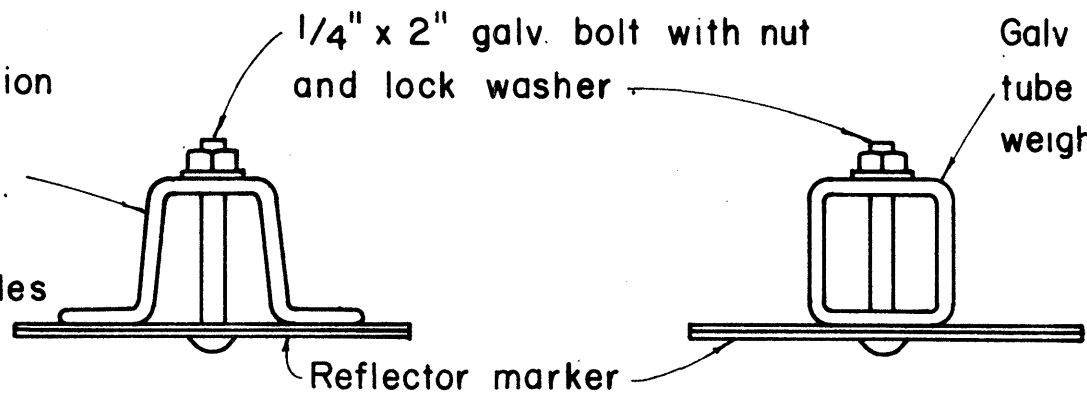
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	220A-02-72	1972	10	10



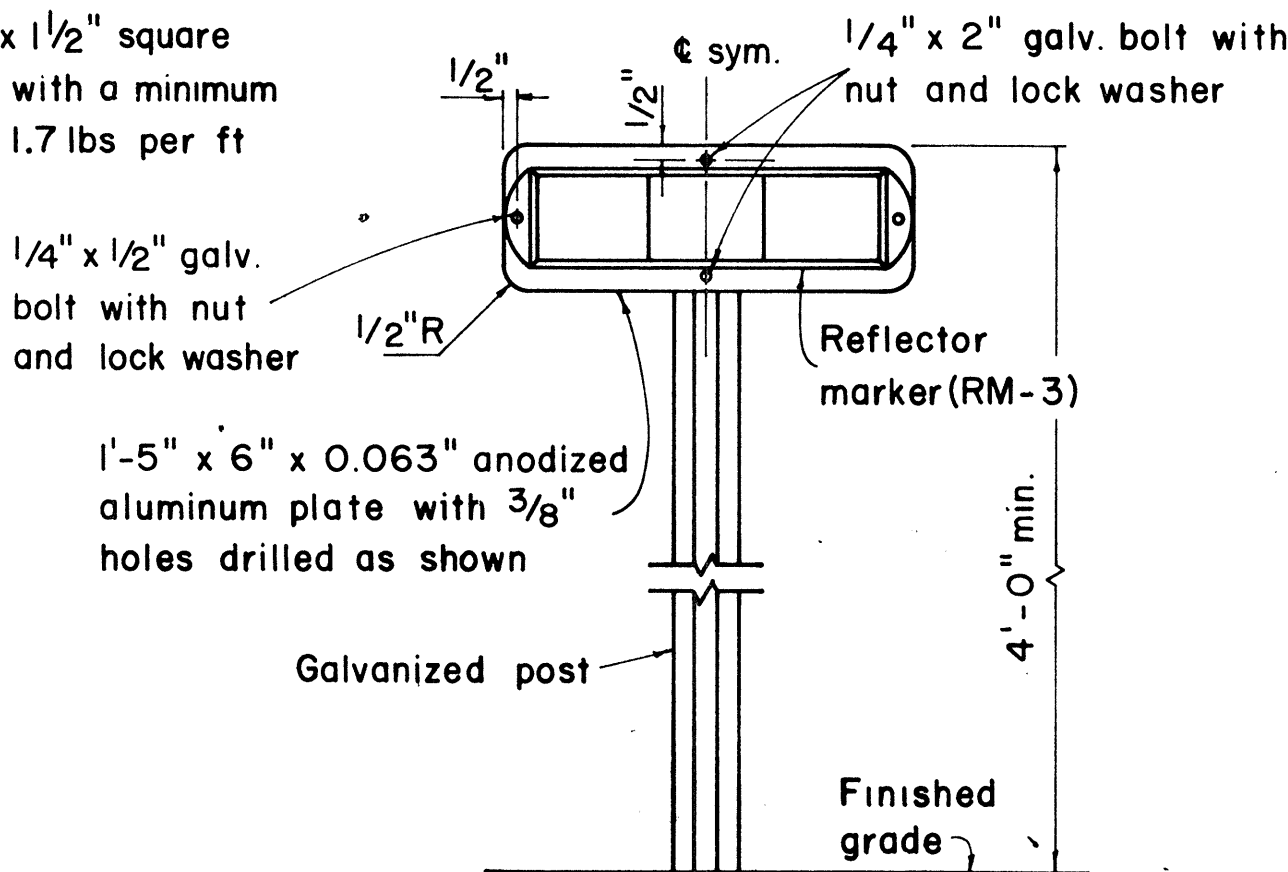
HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATION



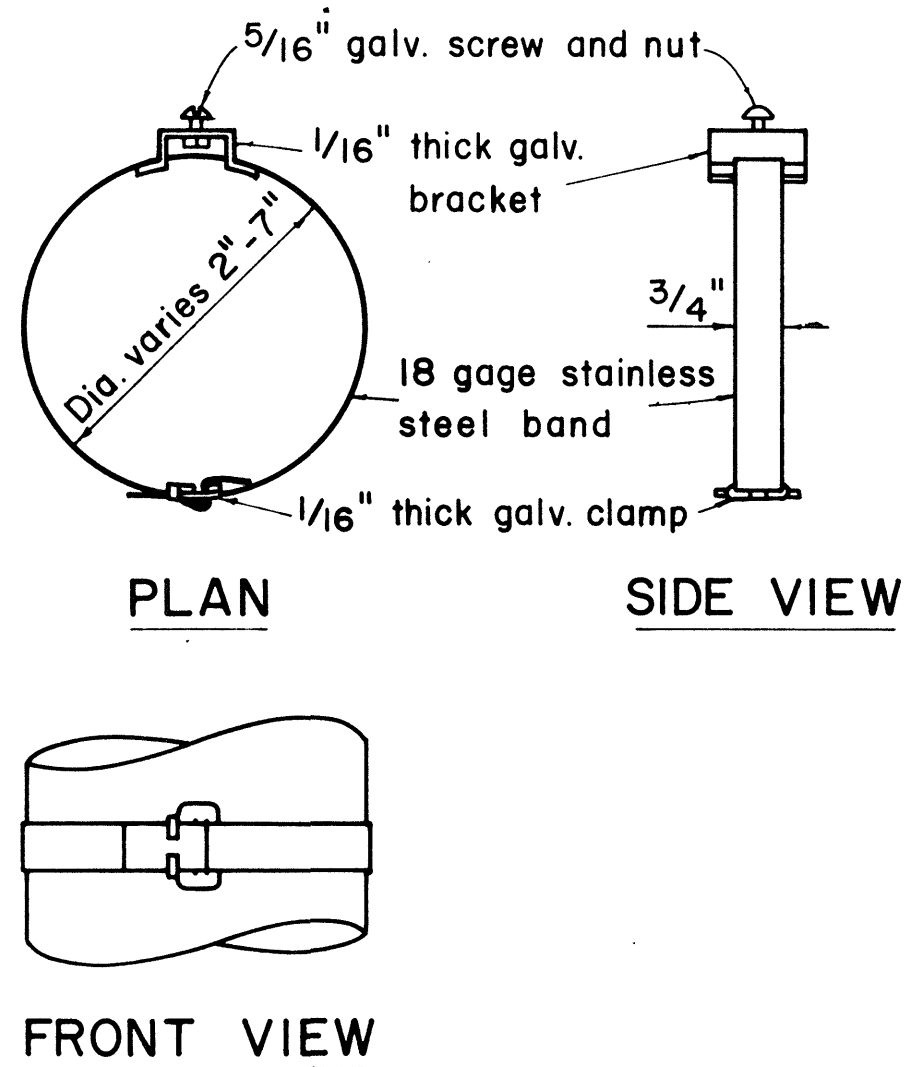
Galv. flanged channel
1/8"x3 1/16" rolled section
post with a minimum
weight of 2 lbs. per ft..
Upper 2 ft. shall have
a single row of 3/8" holes
centered in the web at
1" o.c.



TYPICAL SECTION OF ROAD DELINEATOR



TYPICAL DETAIL
HORIZONTAL REFLECTOR MARKER
RM-3H



TYPICAL BAND BRACKET FOR
MOUNTING TRAFFIC SIGNS

GENERAL NOTES:

- Sign posts shall be 2" galv. standard pipe or 2" x 2" galv. sq. tube post.
- Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 2" galv. standard pipe or two 2" x 2" galv. sq. tube post or 4" x 4" redwood post S4S.
- Signs shall be attached to post with 5/16" galv. bolts with nuts and 7/8" x 0.06 stainless steel washers with neoprene rubber gasket.
- Sign posts shall extend 3 1/2" above sign where required for City and County street name signs.
- Reflector markers RM-1, 2, 3 shall be glass sphere reflector markers with 4" x 5" reflector units (as shown) or plastic prismatic reflector markers with 3" diameter reflector units.
- Clearance markers (RM-3, RM-4) shall be installed with the edge of the marker in line with the inner edge of the obstruction.
- (R) or (L) indicates right or left and shall be as shown on the plans.

APPROVAL RECOMMENDED:
Eichi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

APPROVED:
John J. Delaney 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

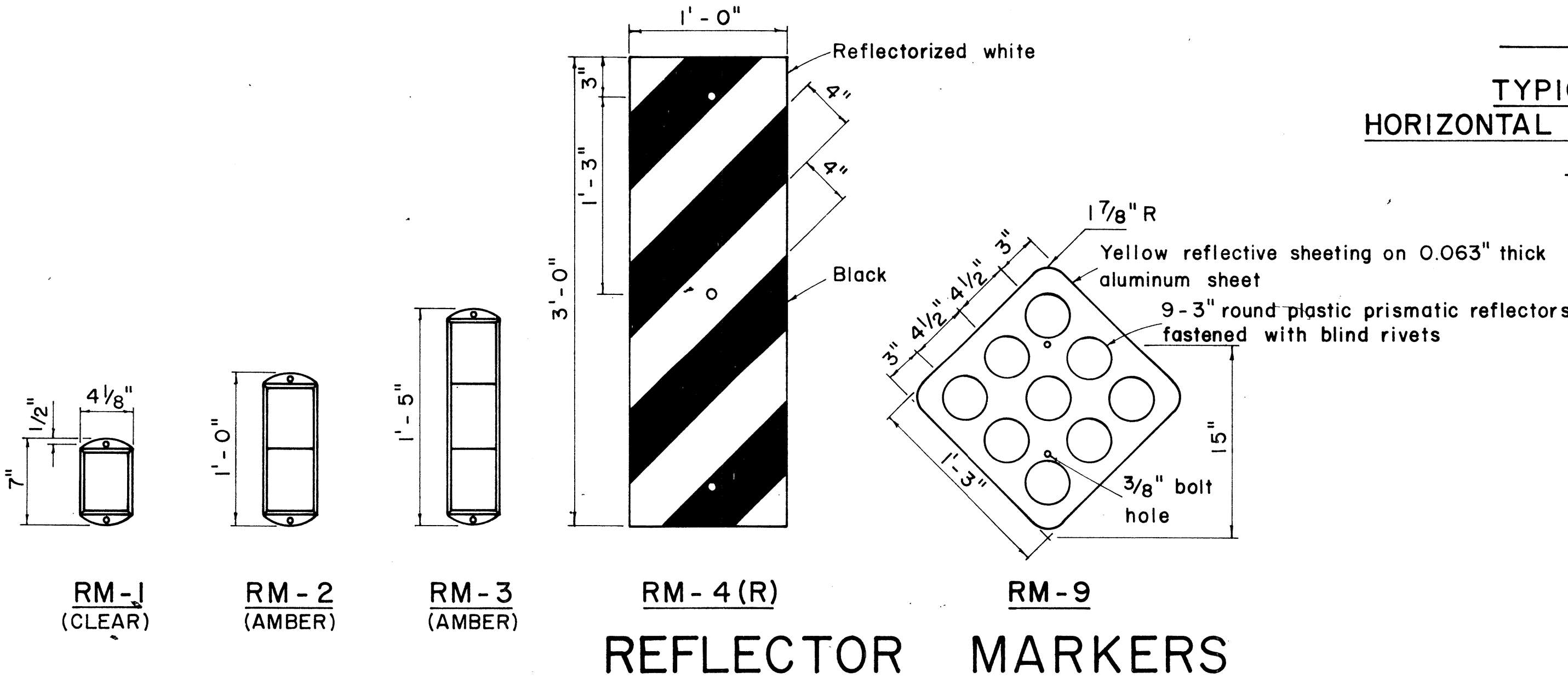
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS SIGN DETAILS

Not to scale March, 1968

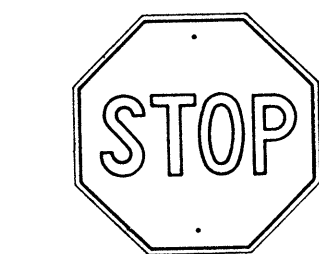
SHEET No. 5 OF 11 SHEETS DT 100

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



REFLECTOR MARKERS

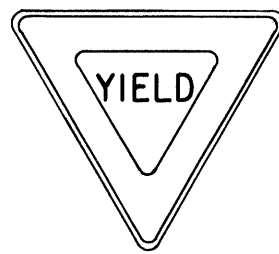
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	2204-0272	1972	11	12



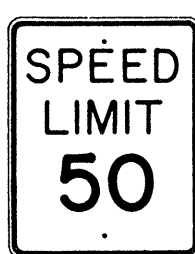
R1-1 30" x 30"
R1-1-A 36" x 36"

4-WAY

R1-3 12" x 6"
R1-3-A 18" x 9"



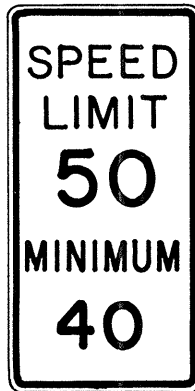
R1-2 36" x 36" x 36"
R1-2-A 48" x 48" x 48"



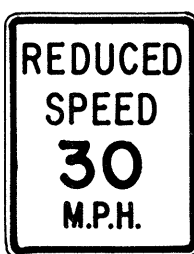
R2-1(50) 24" x 30"
R2-1(50)-A 48" x 60"



R2-2(40) 24" x 24"
R2-2(40)-A 48" x 48"



R2-4a(50/40) 24" x 48"
R2-4a(50/40)-A 48" x 96"



R2-5b(30) 24" x 30"
R2-5b(30)-A 48" x 60"



R3-1 24" x 24"
24" x 18"
R3-1-A 48" x 48"
48" x 36"



R3-2 24" x 24"
24" x 18"
R3-2-A 48" x 48"
48" x 36"



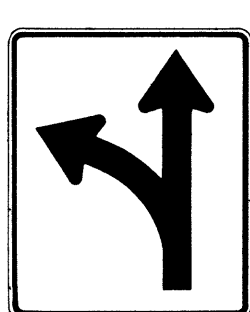
R3-3 24" x 24"
R3-3-A 48" x 48"



R3-4 24" x 24"
24" x 18"
R3-4-A 48" x 48"
48" x 36"



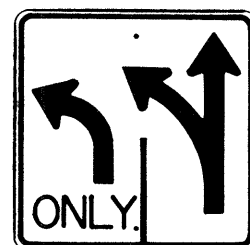
R3-5(L) 30" x 36"
R3-5(L)-A 48" x 60"



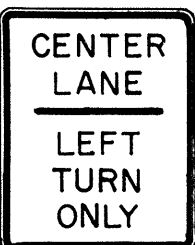
R3-6(L) 30" x 36"
R3-6(L)-A 48" x 60"



R3-7(R) 30" x 30"
R3-7(R)-A 48" x 48"



R3-8(L) 30" x 30"
R3-8(L)-A 36" x 36"
R3-8(L)-B 48" x 48"



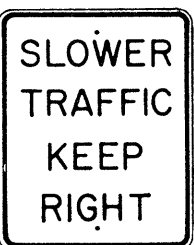
R3-9 24" x 30"



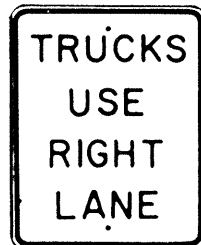
R4-1 24" x 30"



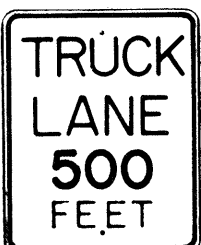
R4-2 24" x 30"



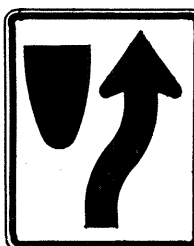
R4-3 24" x 30"
R4-3-A 48" x 60"



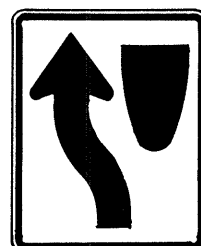
R4-5 24" x 30"



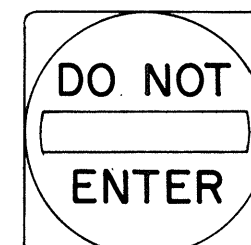
R4-6(500) 24" x 30"



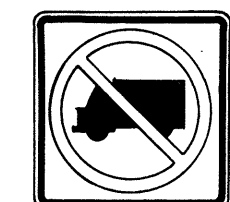
R4-7 24" x 30"
24" x 18"



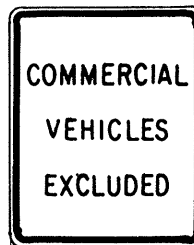
R4-8 24" x 30"
24" x 18"



R5-1 30" x 30"
R5-1-A 48" x 48"



R5-2 24" x 24"
24" x 18"



R5-4 24" x 30"



R5-6 24" x 24"
24" x 18"



R5-9 36" x 24"



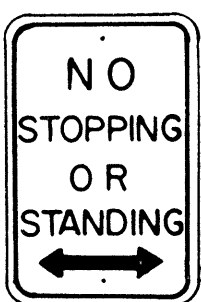
R6-1(R) 36" x 12"



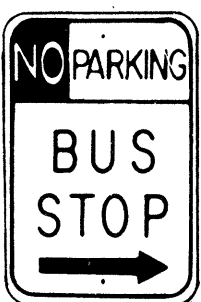
R6-2(R) 18" x 24"



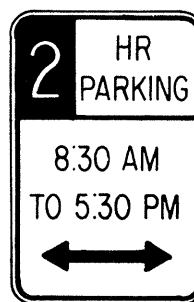
R7-1 12" x 18"
R7-1-A 24" x 30"



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



R7-107(R) 12" x 18"



R7-108 12" x 18"



R7-201 12" x 6"
R7-201-A 24" x 12"



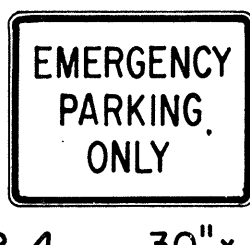
R8-1 24" x 30"



R8-2 24" x 30"



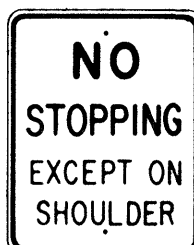
R8-3 24" x 30"



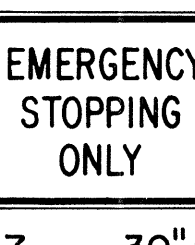
R8-4 30" x 24"
R8-4-A 48" x 36"



R8-5 24" x 30"



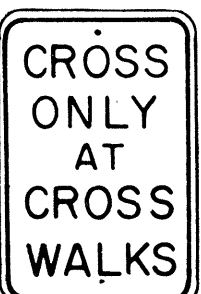
R8-6 24" x 30"



R8-7 30" x 24"
R8-7-A 48" x 36"



R9-1 18" x 24"



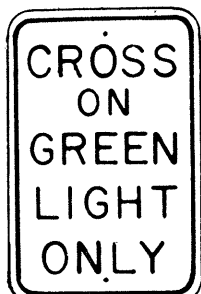
R9-2 12" x 18"



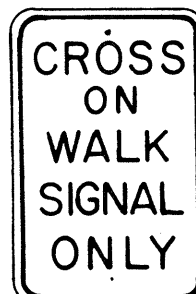
R9-3 12" x 18"



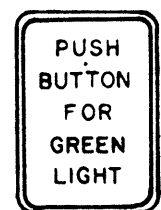
R9-4 18" x 24"



R10-1 12" x 18"



R10-2 12" x 18"



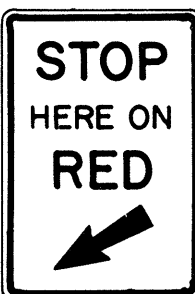
R10-3 9" x 12"



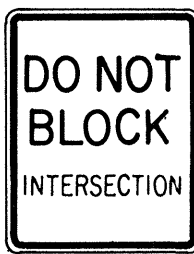
R10-4 9" x 12"



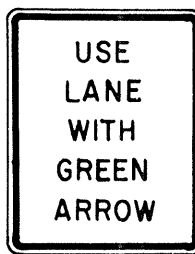
R10-5 24" x 30"



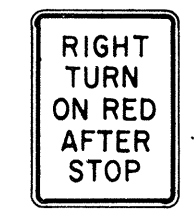
R10-6 24" x 36"



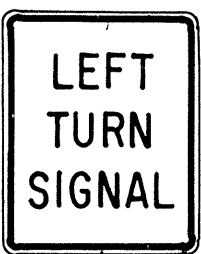
R10-7 24" x 30"



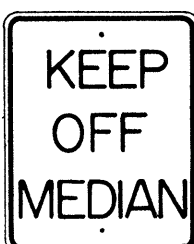
R10-8 24" x 30"



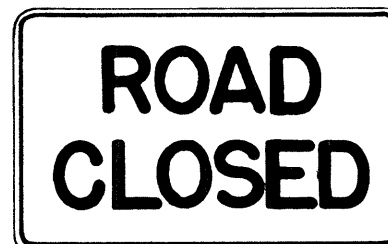
R10-9 24" x 30"



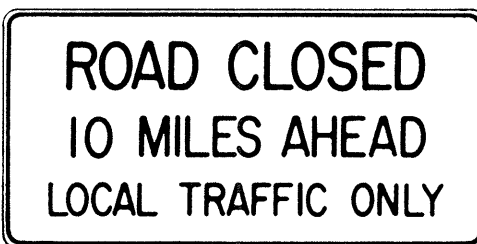
R10-10 24" x 30"



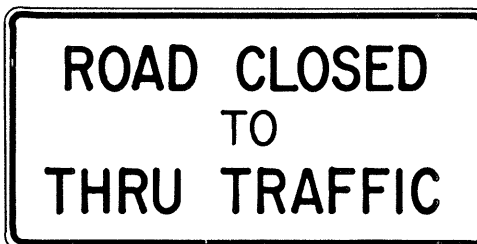
R11-1 24" x 30"



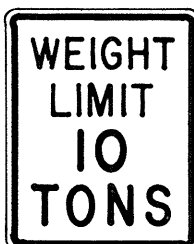
R11-2 48" x 30"



R11-3(10) 60" x 30"



R11-4 60" x 30"



R12-1(10) 24" x 30"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs."
- All regulatory signs shall be reflectorized unless otherwise specified.
- All regulatory signs shall have 3/8" bolt holes drilled at appropriate locations.
- Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.

APPROVAL RECOMMENDED:
TRAFFIC ENGINEER

3/17/72
DATE

APPROVED:
ASSISTANT CHIEF, ENGINEERING

3-20-72
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H.C.	3/20/72

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

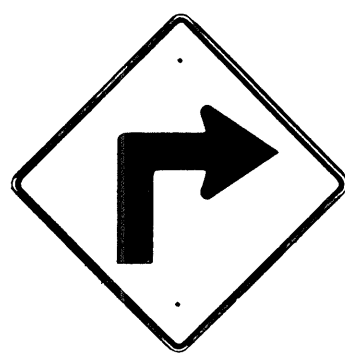
STANDARD DETAILS REGULATORY SIGNS

NOT TO SCALE

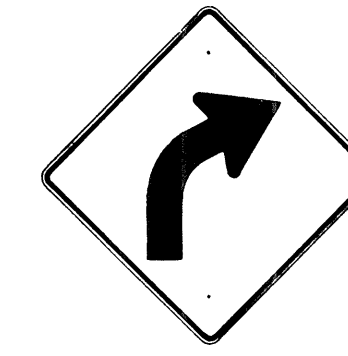
SHEET No. 2 OF 11 SHEETS DT 101

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
TRACED BY	_____
CHECKED BY	_____
NOTE BOOK	_____
No.	_____

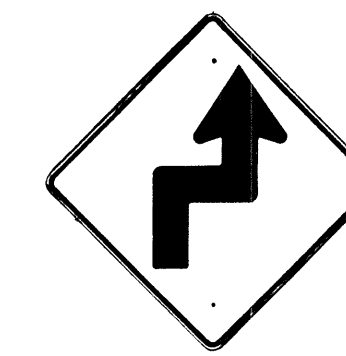
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	220A-02-72	1972	12	12



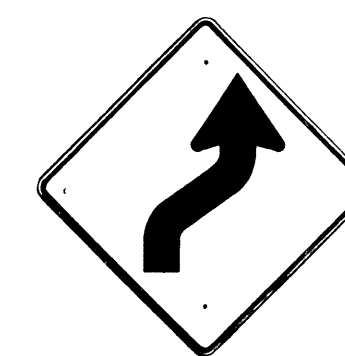
W1-1(R) 30"x30"
W1-1(R)-A 48"x48"



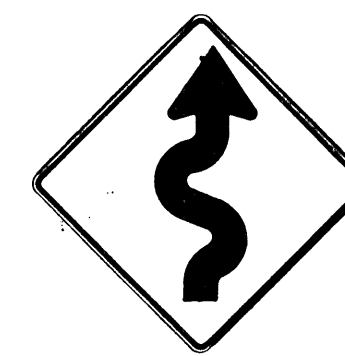
W1-2(R) 30"x30"
W1-2(R)-A 48"x48"



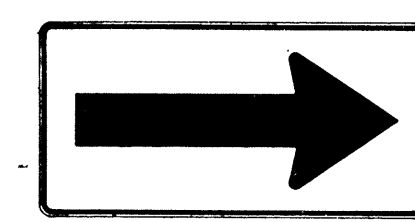
W1-3(R) 30"x30"
W1-3(R)-A 48"x48"



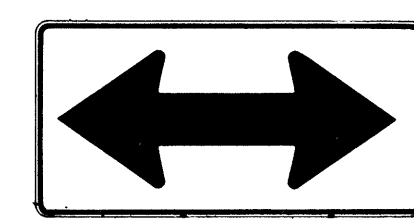
W1-4(R) 30"x30"
W1-4(R)-A 48"x48"



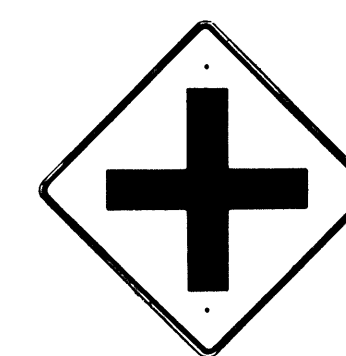
W1-5(R) 30"x30"
W1-5(R)-A 48"x48"



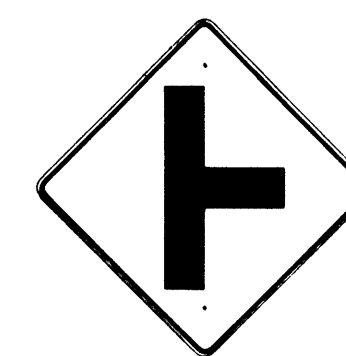
W1-6 48"x24"



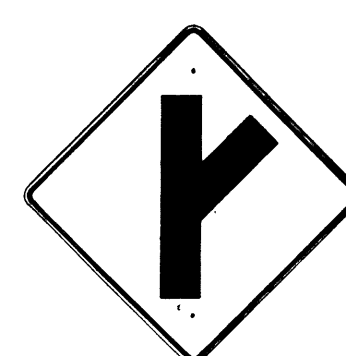
W1-7 48"x24"



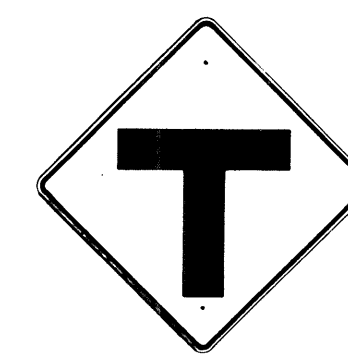
W2-1 30"x30"
W2-1-A 48"x48"



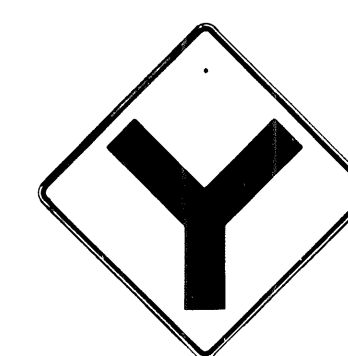
W2-2 30"x30"
W2-2-A 48"x48"



W2-3(R) 30"x30"
W2-3(R)-A 48"x48"



W2-4 30"x30"
W2-4-A 48"x48"



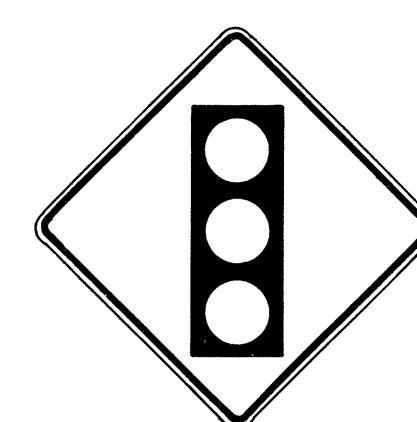
W2-5 30"x30"
W2-5-A 48"x48"



W3-1 30"x30"
W3-1-A 36"x36"



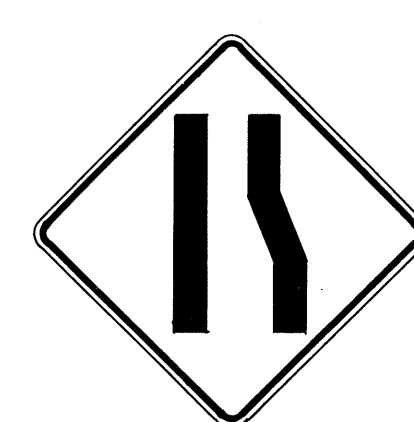
W3-2 30"x30"
W3-2-A 36"x36"



W3-3 36"x36"
24"x18"



W4-1(R) 30"x30"
24"x18"
W4-1(R)-A 48"x48"
24"x18"



W4-2(R) 36"x36"
W4-2(R)-A 48"x48"



W5-1 36"x36"



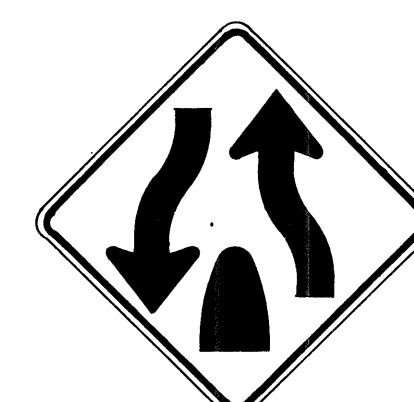
W5-2 30"x30"
W5-2-A 36"x36"



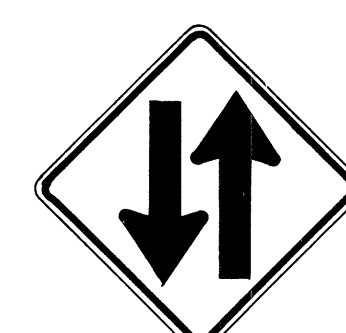
W5-3 36"x36"



W6-1 36"x36"
24"x18"



W6-2 36"x36"
24"x18"



W6-3 30"x30"
24"x18"
W6-3-A 36"x36"
24"x18"
W6-3-B 48"x48"
24"x18"



W7-1 30"x30"
24"x18"
W7-1-A 36"x36"
24"x18"



W7-2 24"x18"



W8-1 30"x30"
W8-1-A 36"x36"



W8-2 30"x30"
W8-2-A 36"x36"



W8-3 30"x30"
W8-3-A 36"x36"



W8-4 30"x30"
W8-4-A 36"x36"



W8-5 30"x30"
24"x18"
W8-5-A 36"x36"
24"x18"



W9-1(R) 30"x30"
W9-1(R)-A 36"x36"
W9-1(R)-B 48"x48"



W9-2(L) 36"x36"
W9-2(L)-A 48"x48"



W10-1 36" Diameter



W11-1 30"x30"
24"x18"
W11-1-A 36"x36"
24"x18"



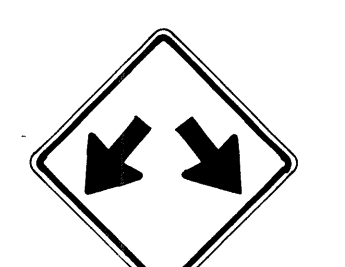
W11-2 30"x30"
24"x18"
W11-2-A 36"x36"
24"x18"



W11-4 30"x30"
24"x18"
W11-4-A 36"x36"
24"x18"



W11-5 30"x30"
24"x18"
W11-5-A 36"x36"
24"x18"



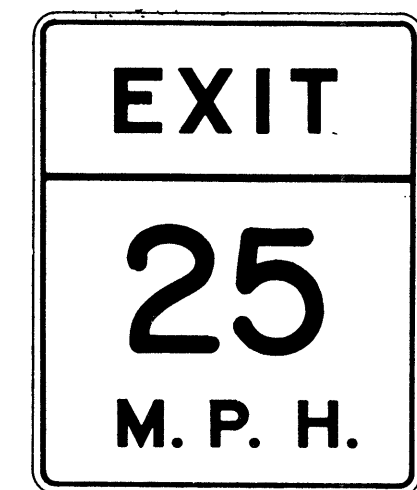
W12-1 24"x24"
W12-1-A 36"x36"
W12-1-B 48"x48"



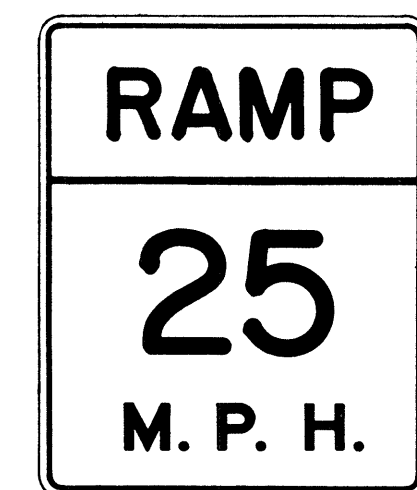
W12-2(12'-6") 36"x36"
24"x18"



W13-1(25) 18"x18"
W13-1(25)-A 24"x24"



W13-2(25) 48"x60"



W13-3(25) 48"x60"



W14-1 30"x30"



W14-3 36"x48"x48"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs."
- All warning signs shall be reflectorized unless otherwise specified.
- All warning signs shall have 3/8" bolt holes drilled at appropriate locations.
- Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
- Signs prefixed with "CW" on the plans shall indicate orange and black construction signs.

APPROVAL RECOMMENDED:
E. J. Tanaka
TRAFFIC ENGINEER
3/17/72
DATE

APPROVED:
W. J. Davis
ASSISTANT CHIEF, ENGINEERING
3-20-72
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 102 Approved 12-30-69	H.T.	3/20/72

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
WARNING SIGNS

NOT TO SCALE
SHEET No. 7 OF 11 SHEETS DT 102

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
NO.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	220A-02-72	1972	13	19



CW20-1a 48" x 48"



CW20-2d 48" x 48"



CW20-3b 48" x 48"



CW20-4d 48" x 48"



CW20-5d(L) 48" x 48"



CW20-7c 48" x 48"



CW21-1 30" x 30"



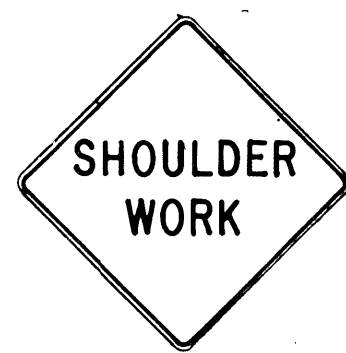
CW21-2 30" x 30"



CW21-3 36" x 36"



CW21-4 36" x 36"



CW21-5 30" x 30"



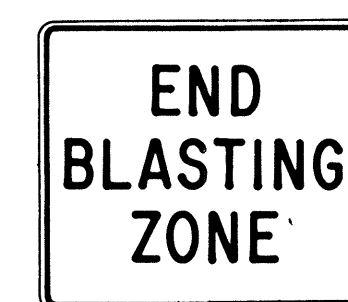
CW21-6 30" x 30"



CW22-1b 48" x 48"



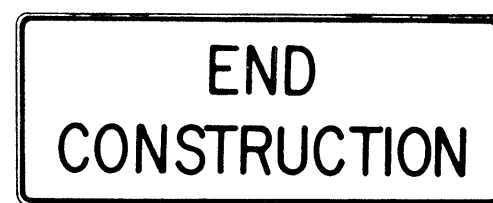
CW22-2 42" x 36"



CW22-3 42" x 36"



CG20-1(5) 60" x 36"



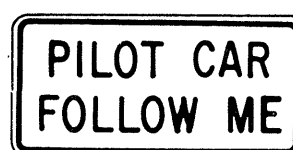
CG20-2 60" x 24"



CM4-9(R) 30" x 24"



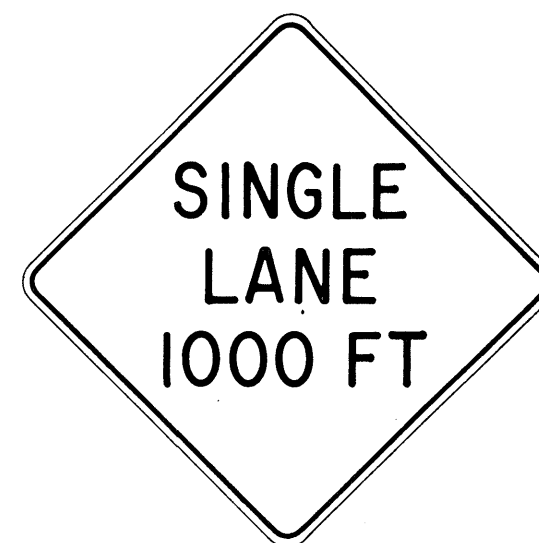
CM4-10(R) 48" x 18"



CG20-4 36" x 18"



CW23-1 36" x 36"



CW23-2b 48" x 48"



CW23-3(R) 48" x 48"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs."
- All construction signs shall be reflectorized unless otherwise specified.
- All construction signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations.
- Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
- For "CW" series signs, suffixes a, b, c and d are as follows:
a - 1500 FT, b - 1000 FT, c - 500 FT and d - AHEAD.

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	H.T.	3/23/72

APPROVAL RECOMMENDED:
Erich Tanaka 3/21/72
TRAFFIC ENGINEER DATE

APPROVED:
Arthur Salsich 3/23/72
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

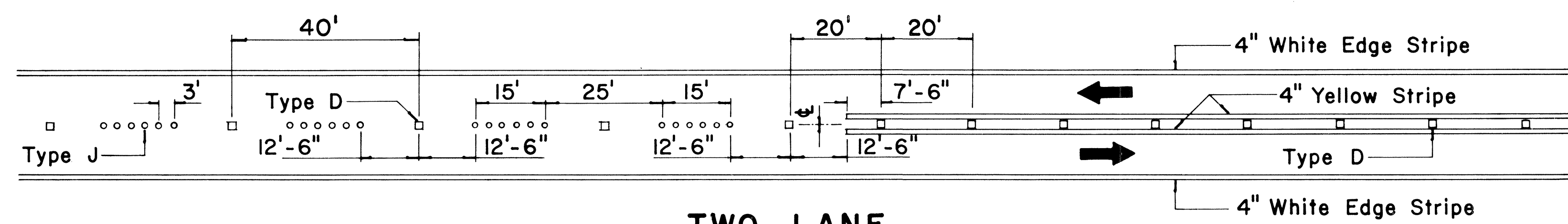
STANDARD DETAILS CONSTRUCTION SIGNS

NOT TO SCALE

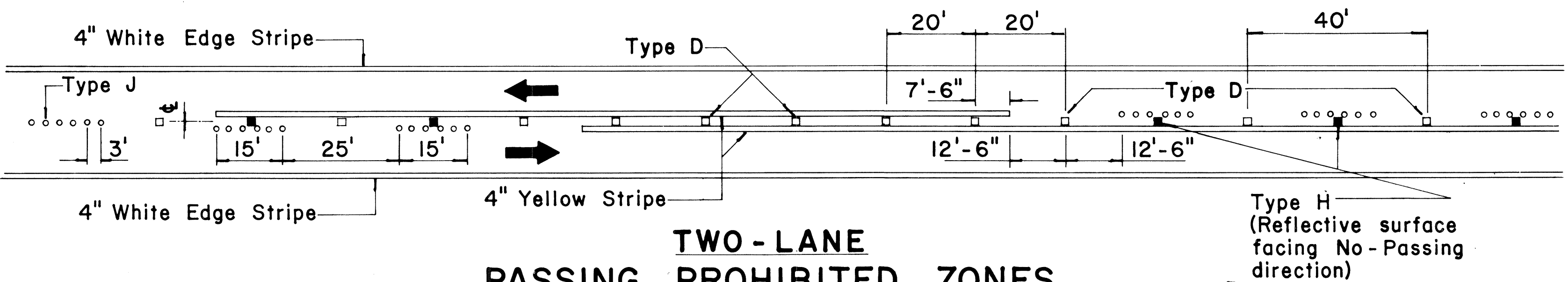
SHEET No. 8 OF 11 SHEETS DT 104

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

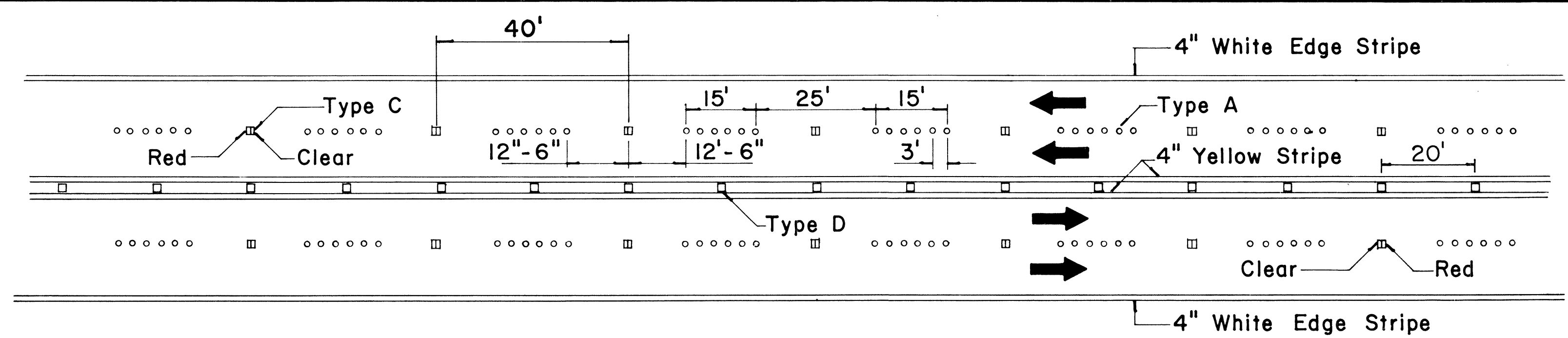
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	220A-02-72	1972	14	10



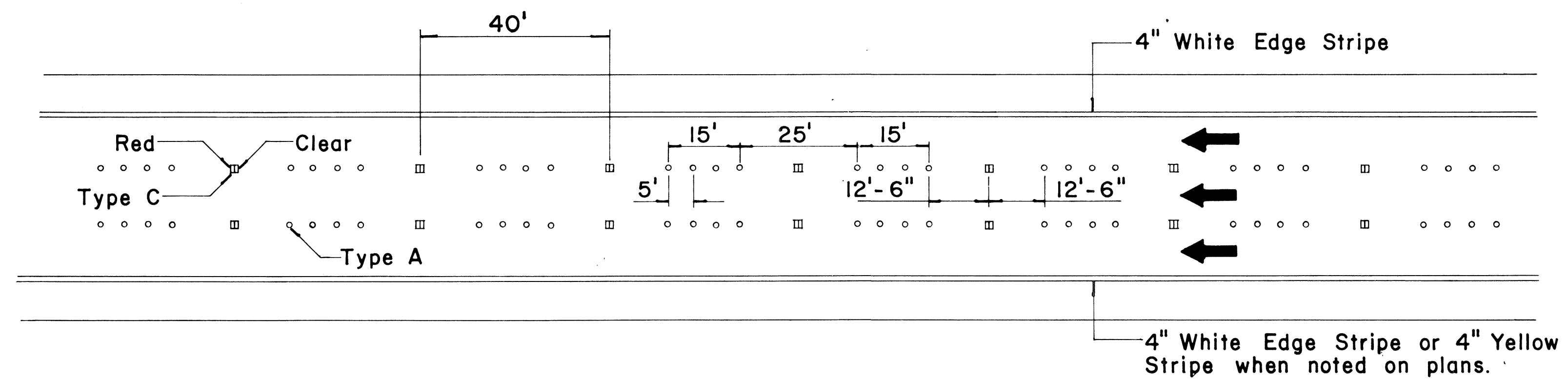
**TWO-LANE
PASSING PERMITTED AND PASSING PROHIBITED**



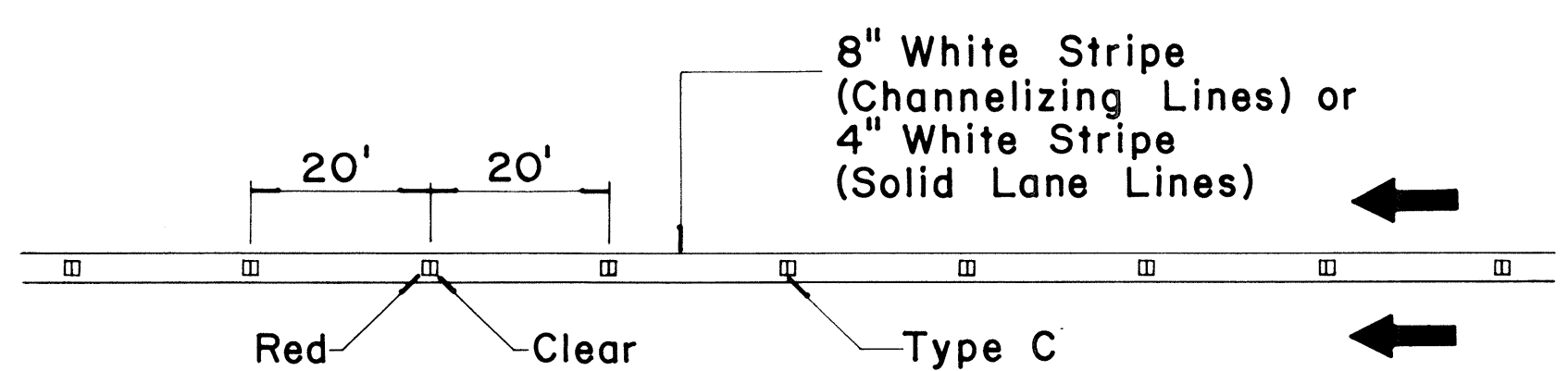
**TWO-LANE
PASSING PROHIBITED ZONES**



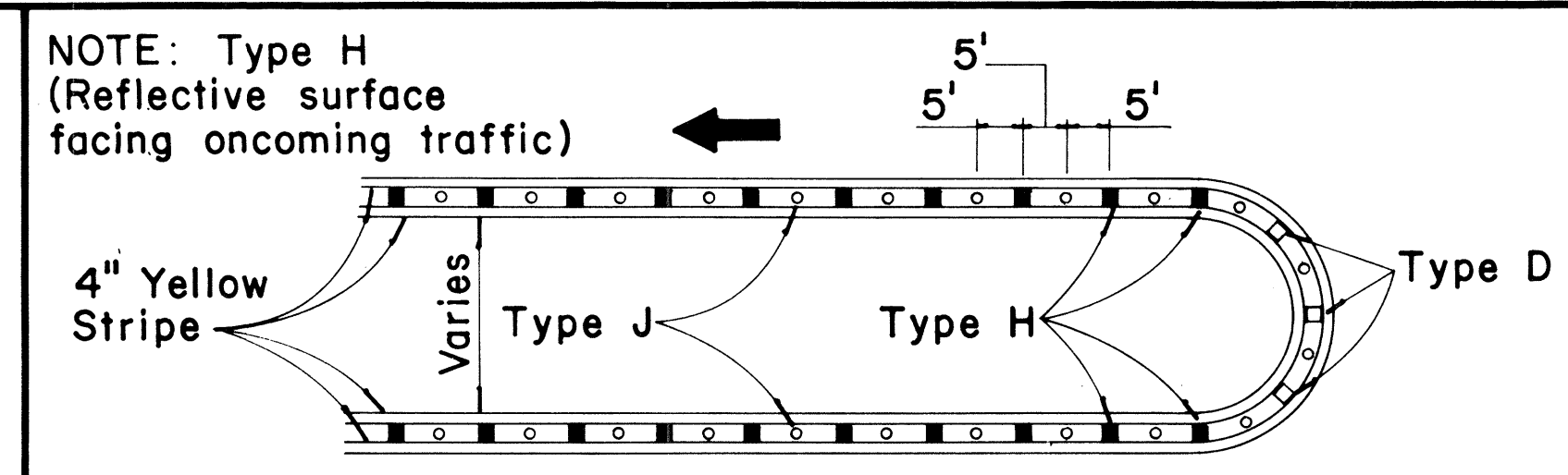
**MULTI-LANE
LANE LINES AND CENTER LINE**



FREEWAY LANE LINES



**CHANNELIZING LINES
OR SOLID LANE LINES**



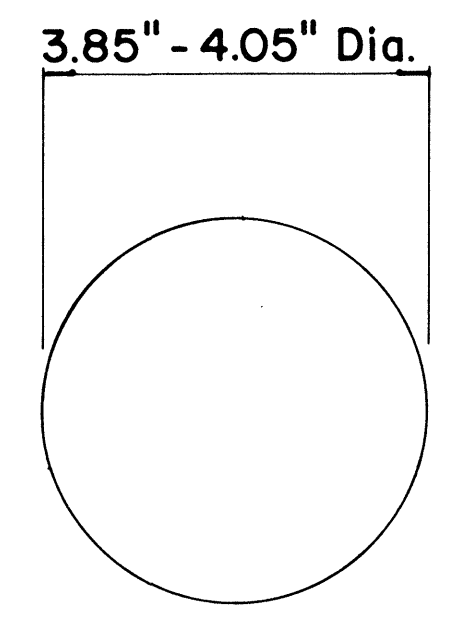
MEDIAN NOSE DELINEATION

TWO - LANE

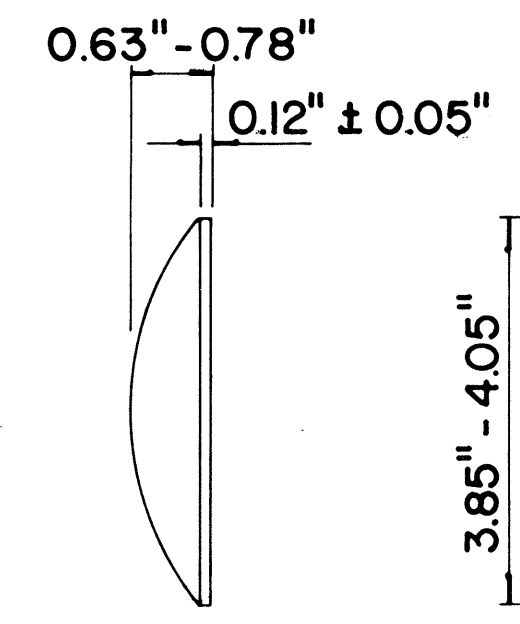
MULTI - LANE

FREEWAY

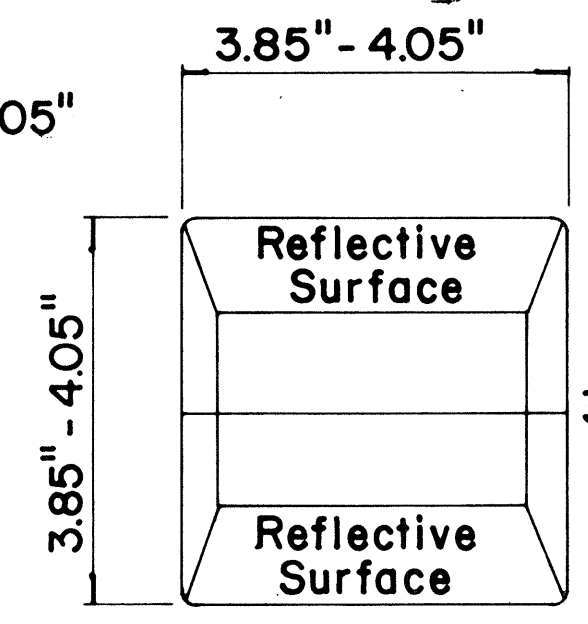
MISCELLANEOUS



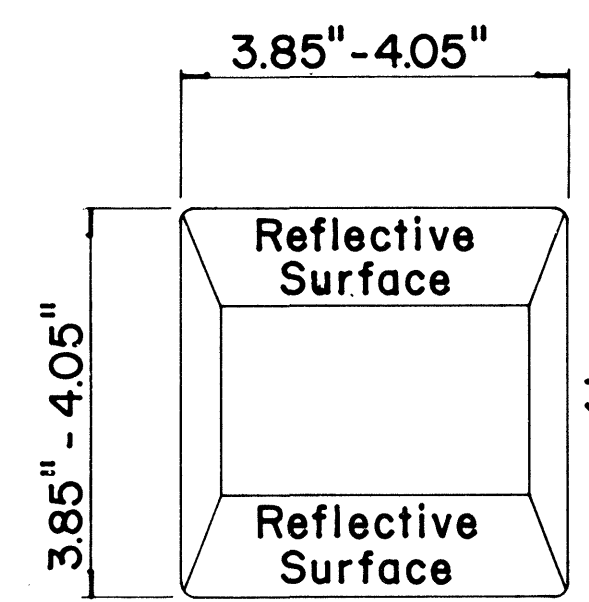
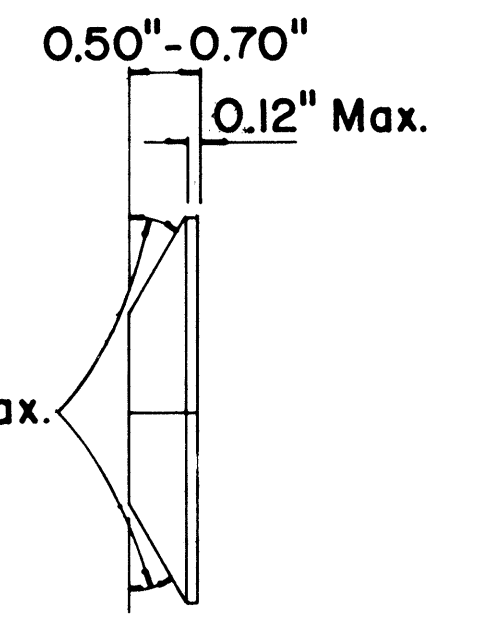
**TYPE A
NON-REFLECTIVE WHITE MARKER**



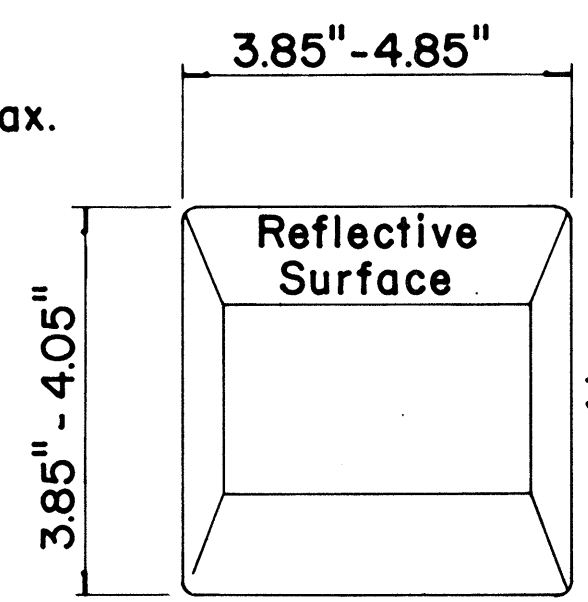
**TYPE J
NON-REFLECTIVE YELLOW MARKER**



**TYPE C
RED-CLEAR REFLECTIVE MARKER**



**TYPE D
TWO-WAY YELLOW REFLECTIVE MARKER**



**TYPE H
ONE-WAY YELLOW REFLECTIVE MARKER**

GENERAL NOTES

1. Painted stripes to be done by State forces unless otherwise specified.

APPROVAL RECOMMENDED:
Eichi Tanaka 11/18/71
TRAFFIC ENGINEER DATE

APPROVED:
Shirley Z. Kish 11/18/71
ASSISTANT CHIEF, ENGINEERING DATE

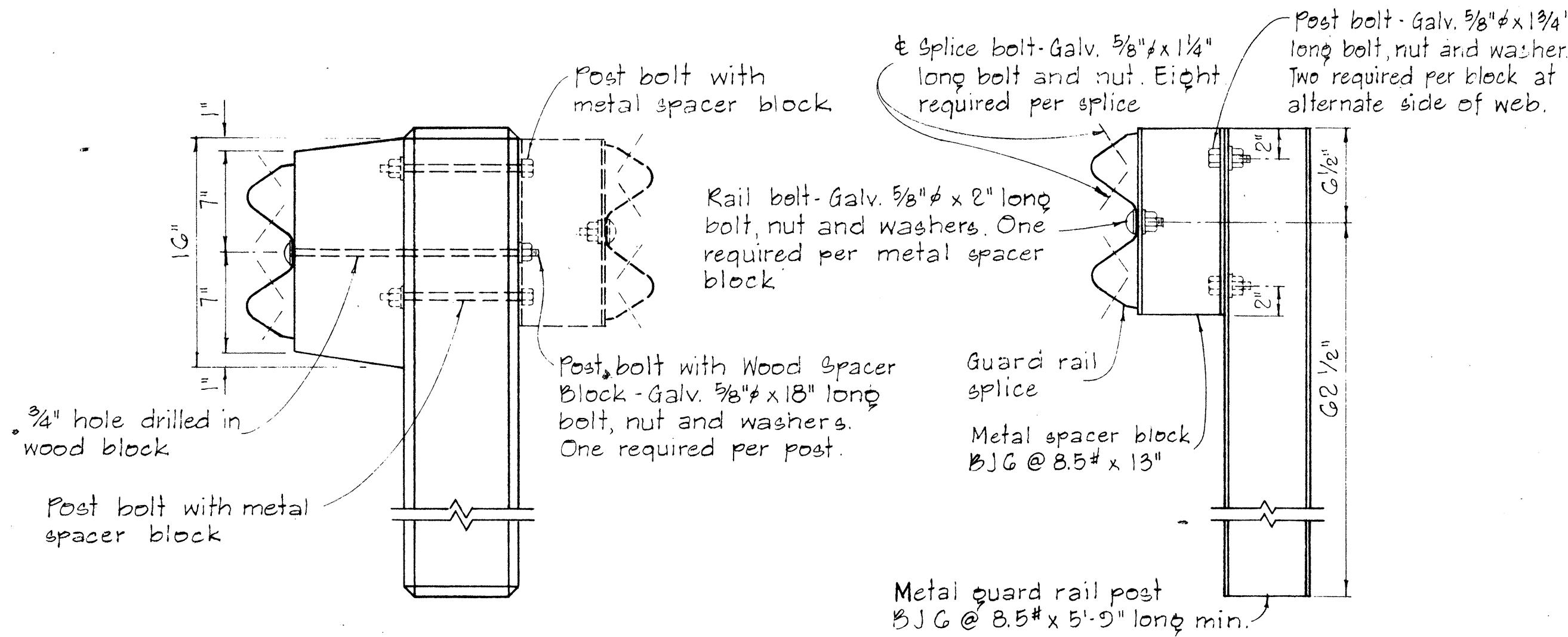
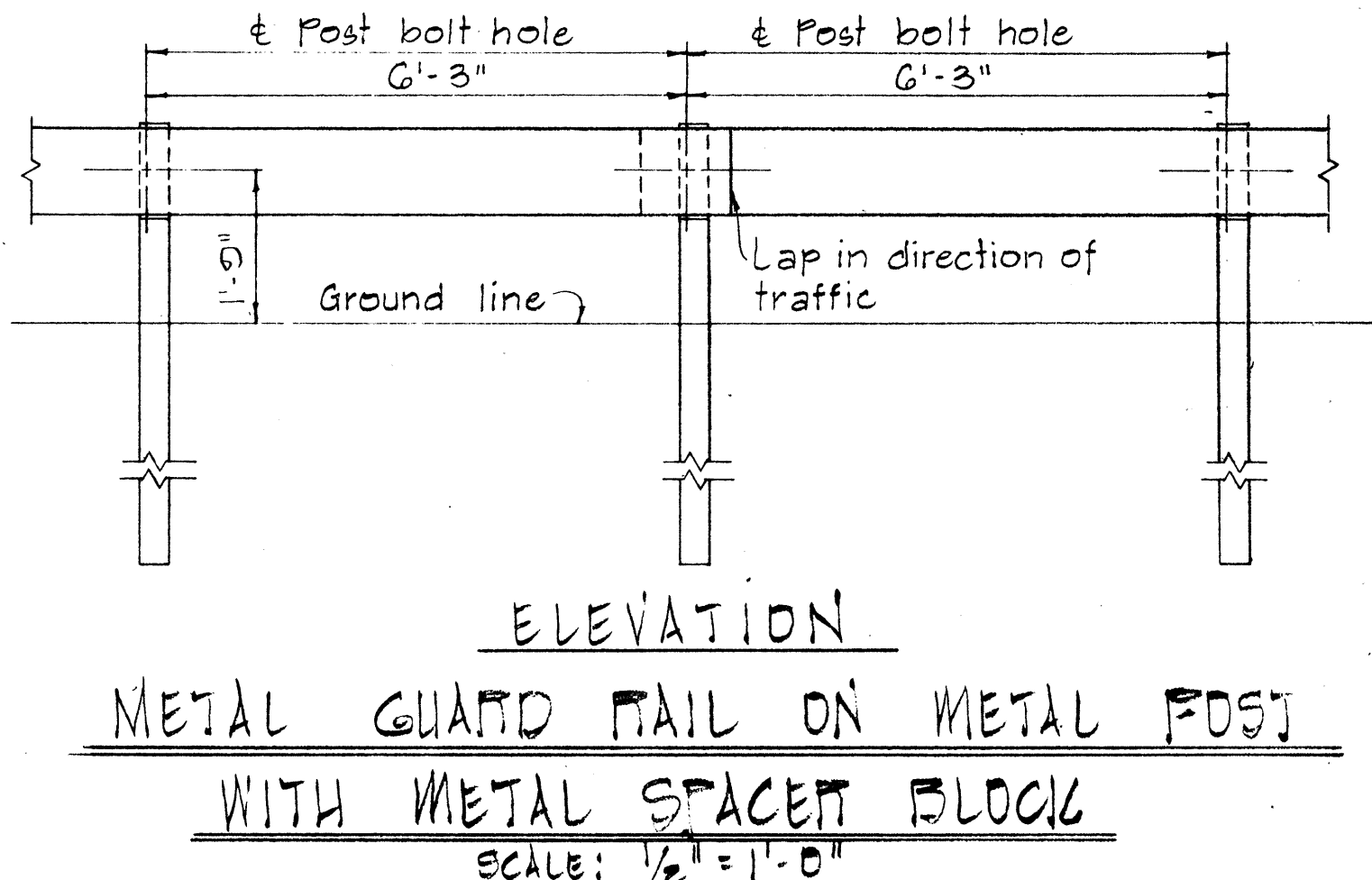
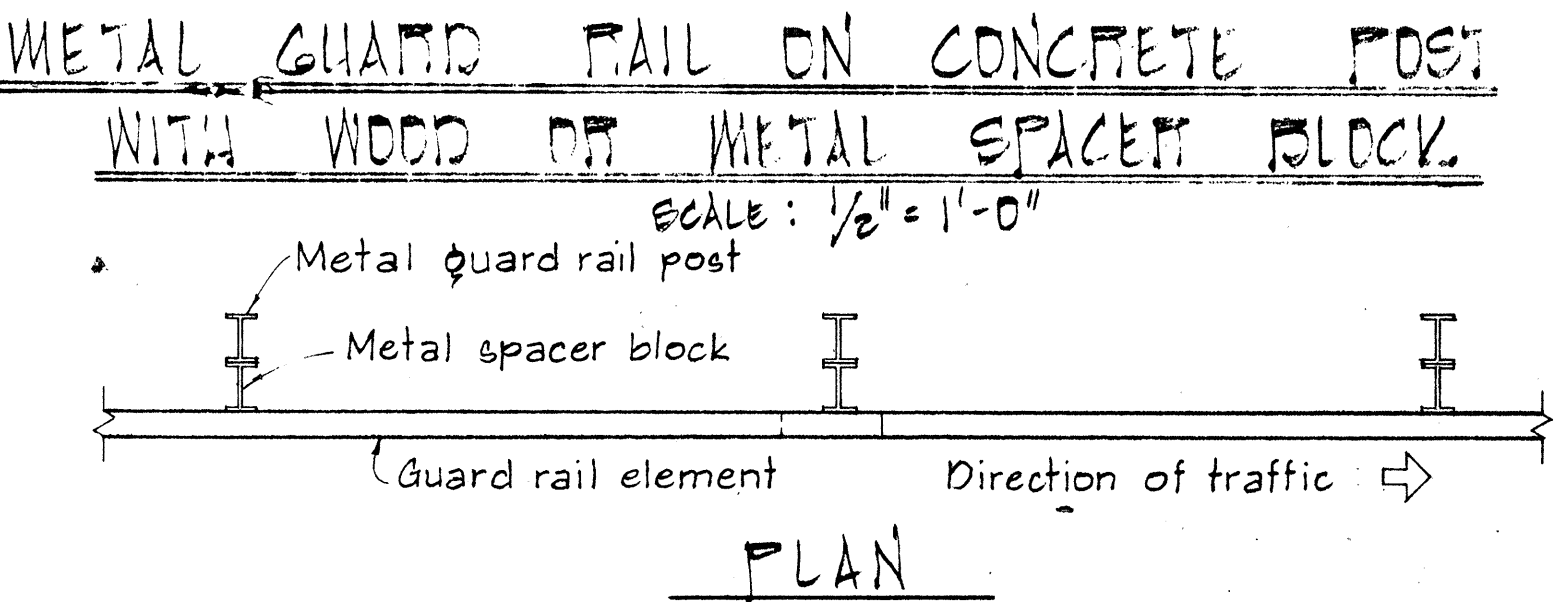
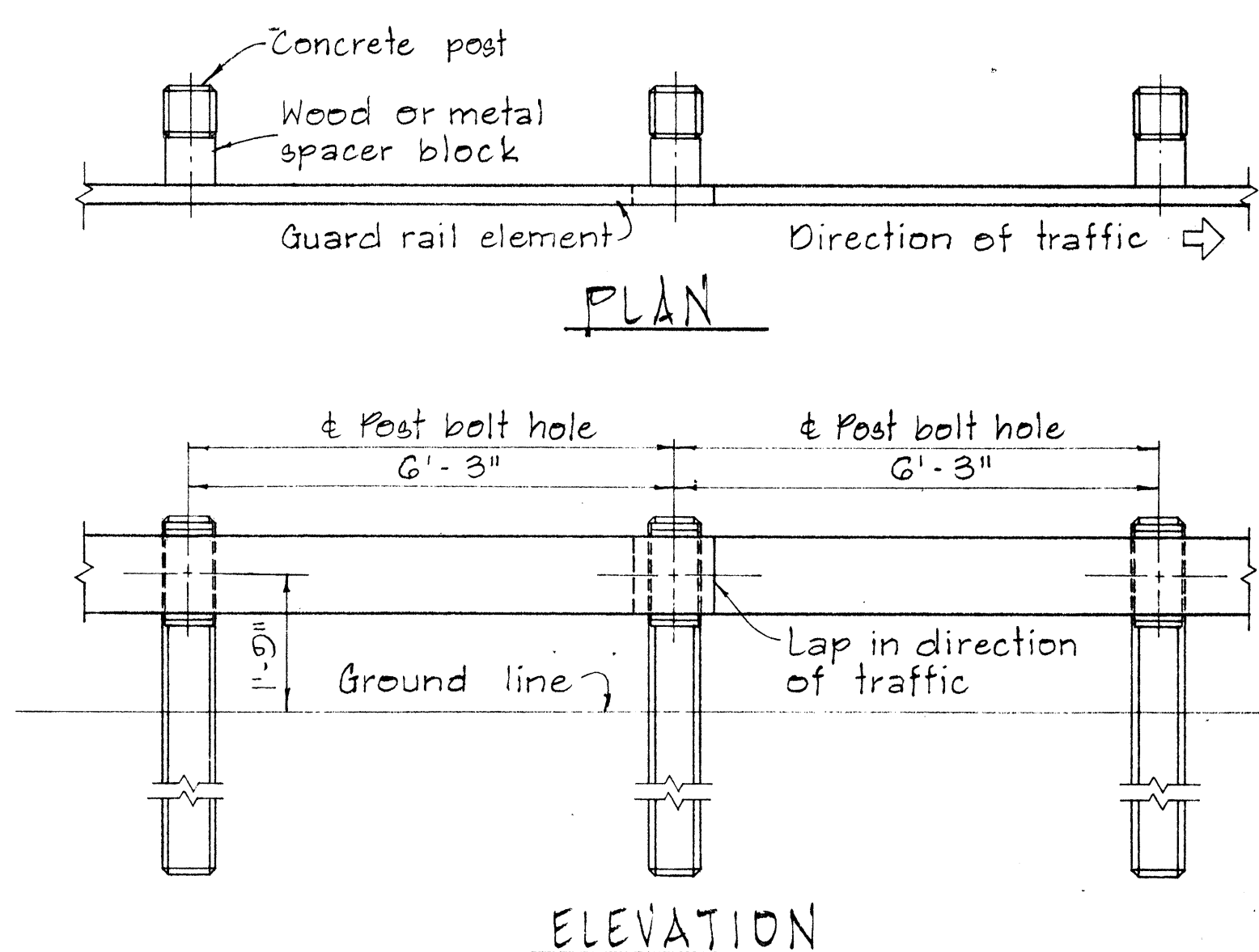
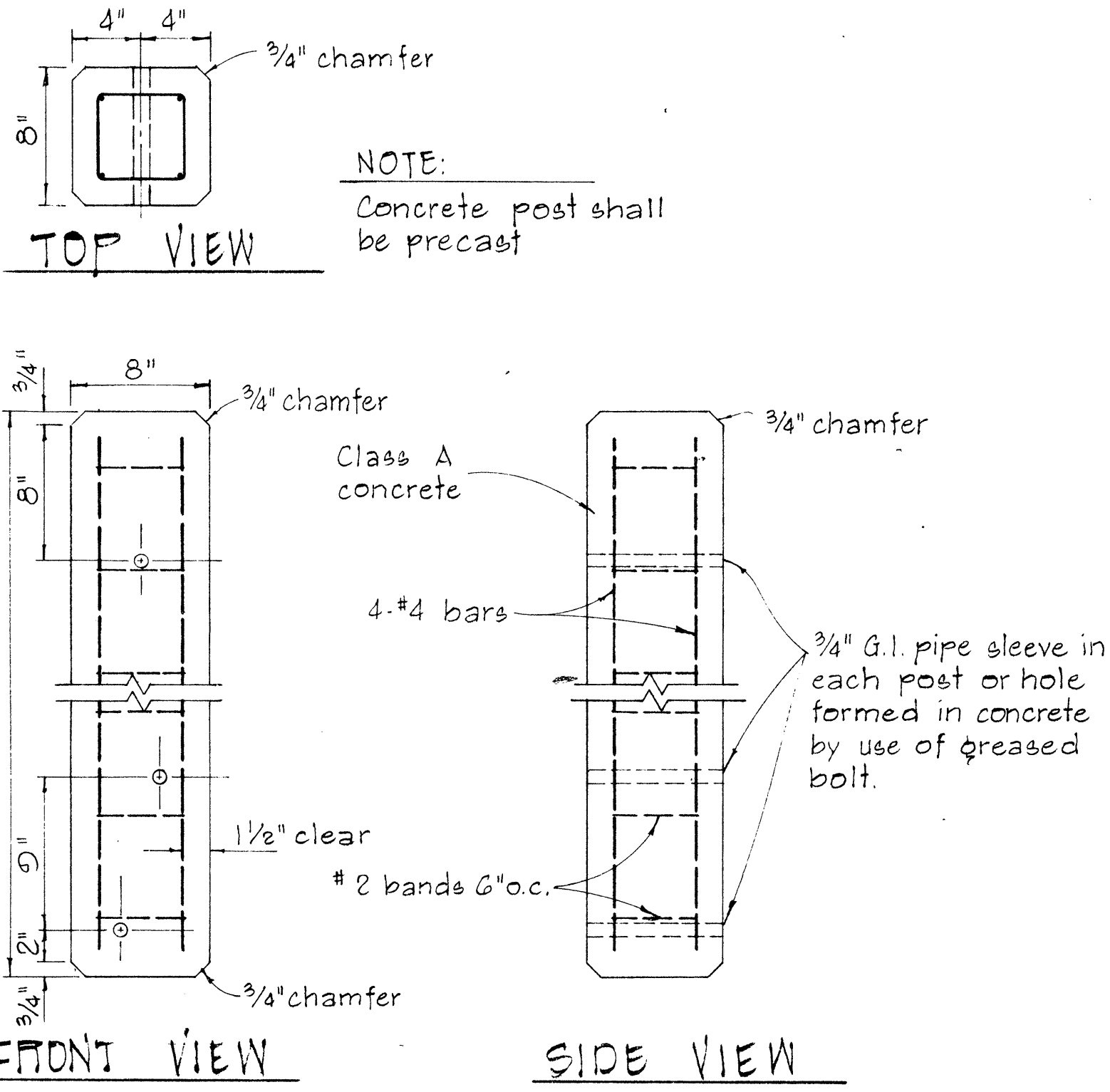
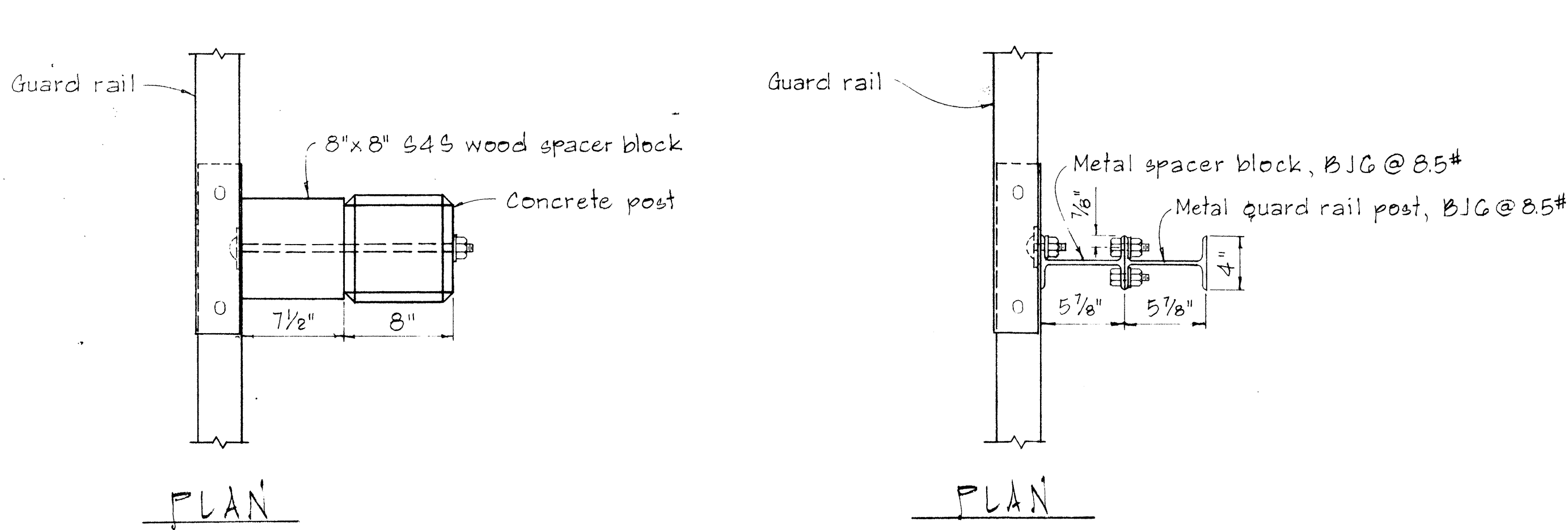
No.	REVISION	APPROVED BY	DATE
1	Add reflector marker in each line gap.	H.T.	10-21-72
2	Revised General Notes.	H.T.	10-21-72

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**STANDARD DETAILS
RAISED PAVEMENT MARKERS**

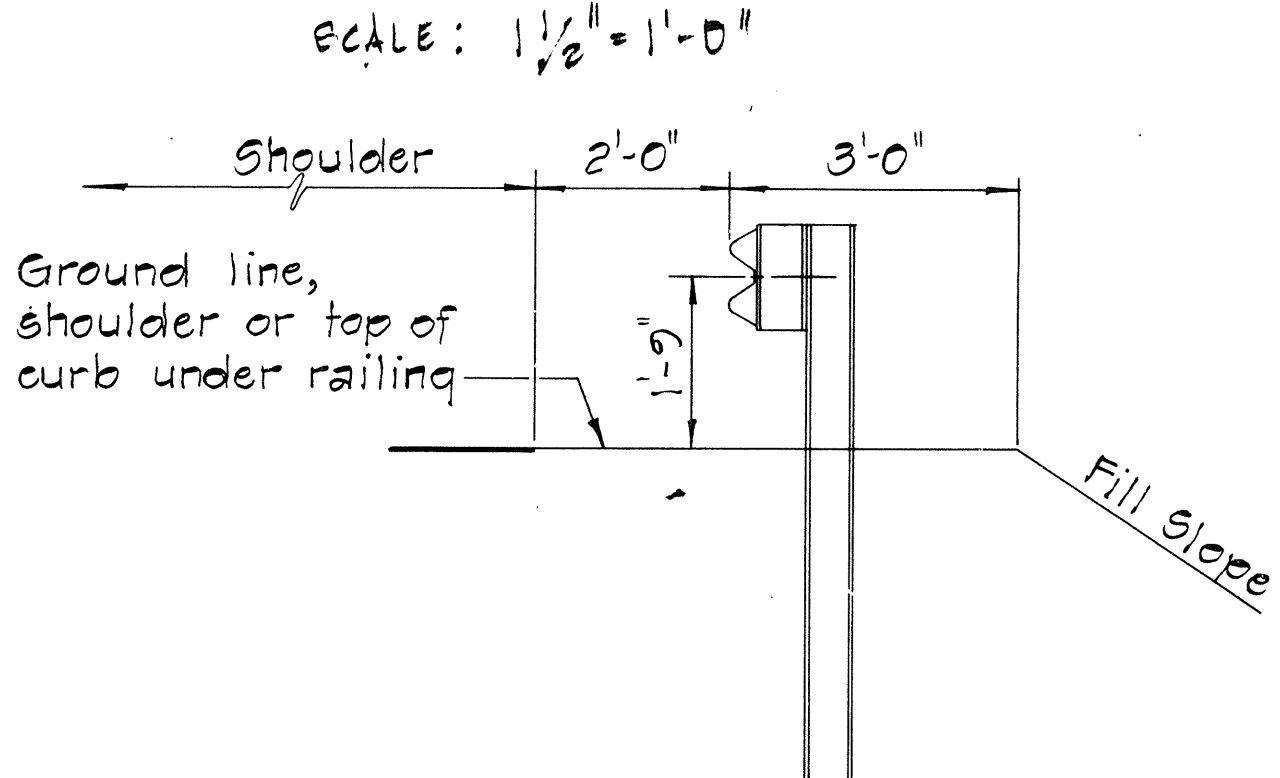
Not to Scale October 1971
SHEET No. 9 OF 11 SHEETS DT 300

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	220A-02-72	1972	15	19

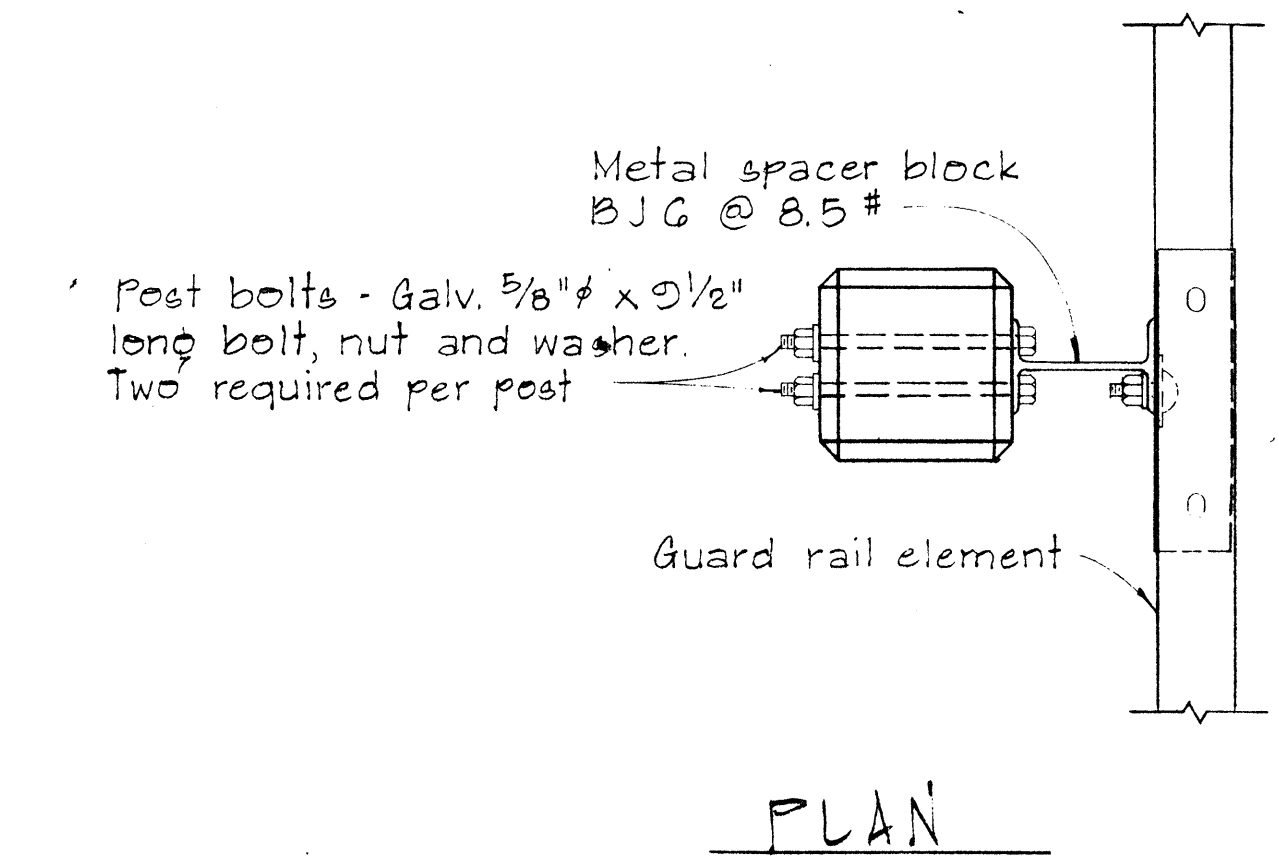


SINGLE METAL GUARD RAIL ON METAL POST WITH METAL SPACER BLOCK

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



TYPICAL METAL GUARD RAIL DETAIL
SCALE: 1/2" = 1'-0"



SINGLE METAL GUARD RAIL ON PRECAST CONCRETE POST WITH WOOD OR METAL SPACER BLOCK

APPROVAL RECOMMENDED:
Eugene Tanaka
TRAFFIC ENGINEER
12/29/62
DATE

APPROVED:
Hubert J. Delaney
ASSISTANT CHIEF, ENGINEERING
12-30-62
DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
METAL GUARD RAIL

SCALE: AS SHOWN
NOV. 1968
SHEET No. 10 OF 11 SHEETS PT 500

DATE	
SURVEY PLOTTED BY	
DRAWN BY	
CHECKED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

