

2 1/2" Dia. Pipe Sleeve  
Finish A.C. Pav't.  
3rd Resurfacing

Continuous Weld

Finish A.C. Pav't.  
2nd Resurfacing

3" Dia. Pipe Sleeve  
Low Viscosity Epoxy Glue

Exist. A.C. Pav't.  
Exist. 2 1/2" Dia. Pipe Sleeve

2 1/2" I.D.  
Third Adjustment

3" I.D.  
Second Adjustment  
Continuous Weld

2 1/2" I.D.  
First Adjustment

3rd Resurfacing

1/4"

2nd Resurfacing

1st Resurfacing

4" Max.

Exist. Brass Plug

Exist. Class A  
Conc. to remain

Applicable  
adjusted  
2 1/2" I.D.

## DETAIL FOR CENTERLINE MONUMENT (2ND & 3RD) ADJUSTMENTS

Exist. Ground or Fin. Elev.  
on Pavement, Median or Roadside

1/4"

2'-0"

May be less where Solid Rock  
is encountered

1/2" x 2 1/2" Brass Plug  
feathered at bottom to be set  
after pavement is completed  
(Replace Brass Plug with Marker Disk  
if furnished by the State)

Class A Concrete  
(8" x 8" Square Section)

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



See Pipe Sleeve and Plate Details

2 1/2" I.D. Pipe Sleeve

New Resurfacing

1/4"

Exist. ♂ Monument

Epoxy Plate to exist. Conc. and secure with 2 Conc. Nails

Exist. Pavement

Exist. Brass Plug

Provide 2 Holes,  
one at opposite  
corner to drive  
Conc. Nails

1/4" Thick  
Steel Plate

2 1/2" Dia.  
Pipe Sleeve

6"

6"

6"

**NOTE:**

1. Adjustment of Centerline Monuments will not be paid for separately, but shall be considered incidental to the various contract items.
2. These Adjustment Details also apply to Centerline Monuments utilized as Stationline Reference Points.

Scale: 3" = 1'-0"

APPROVAL RECOMMENDED:

Mike Minna 6-20-83  
HIGHWAY DESIGN ENGINEER DATE

APPROVED:

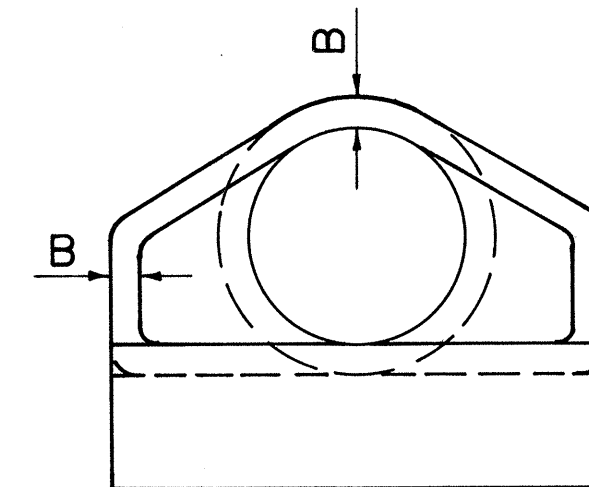
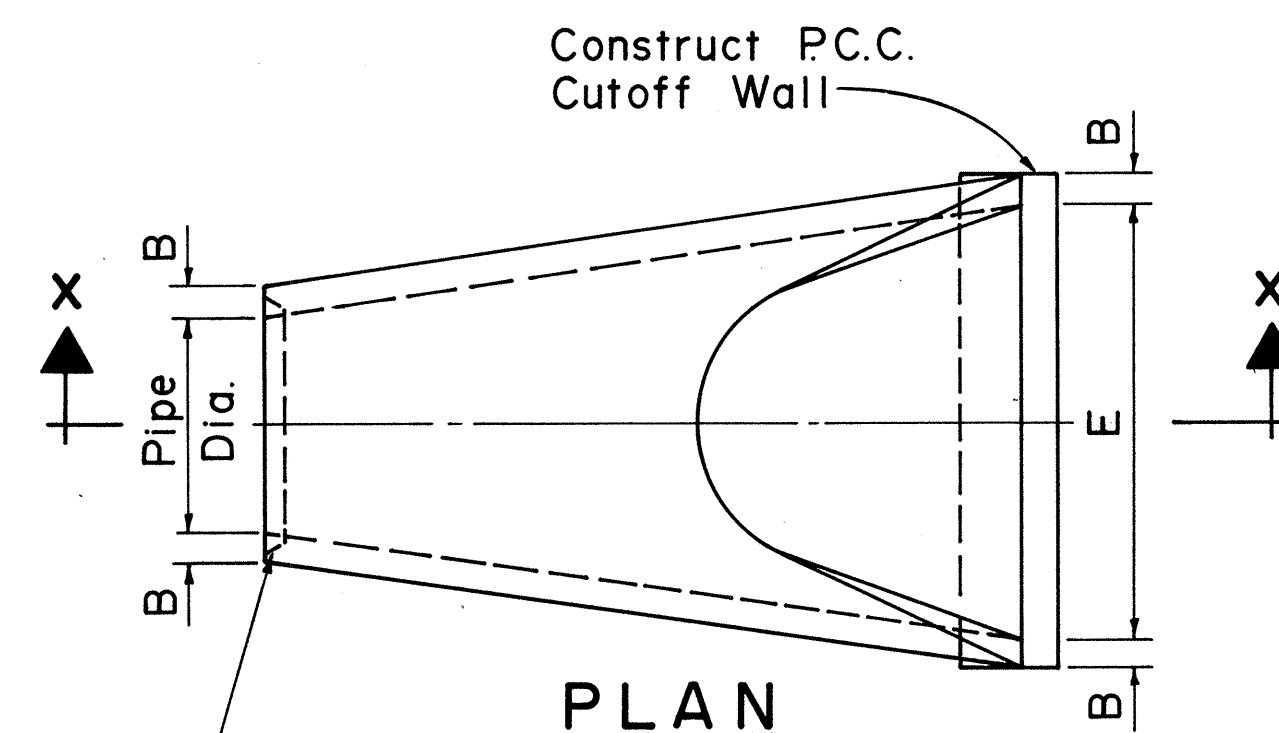
S. Sugiyanma 6-22-83  
ASSISTANT CHIEF ENGINEERING DATE

STATE OF HAWAII	
DEPARTMENT OF TRANSPORTATION	
HIGHWAYS DIVISION	
<u><b>STANDARD DETAILS</b></u>	
<u><b>CENTERLINE AND REFERENCE</b></u>	
<u><b>SURVEY MONUMENT</b></u>	
Scale: As Shown	Date: May, 1983
<b>SHEET NO. 1 OF 2 SHEETS</b>	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-3400(2)	1984	12	17

## GENERAL NOTES

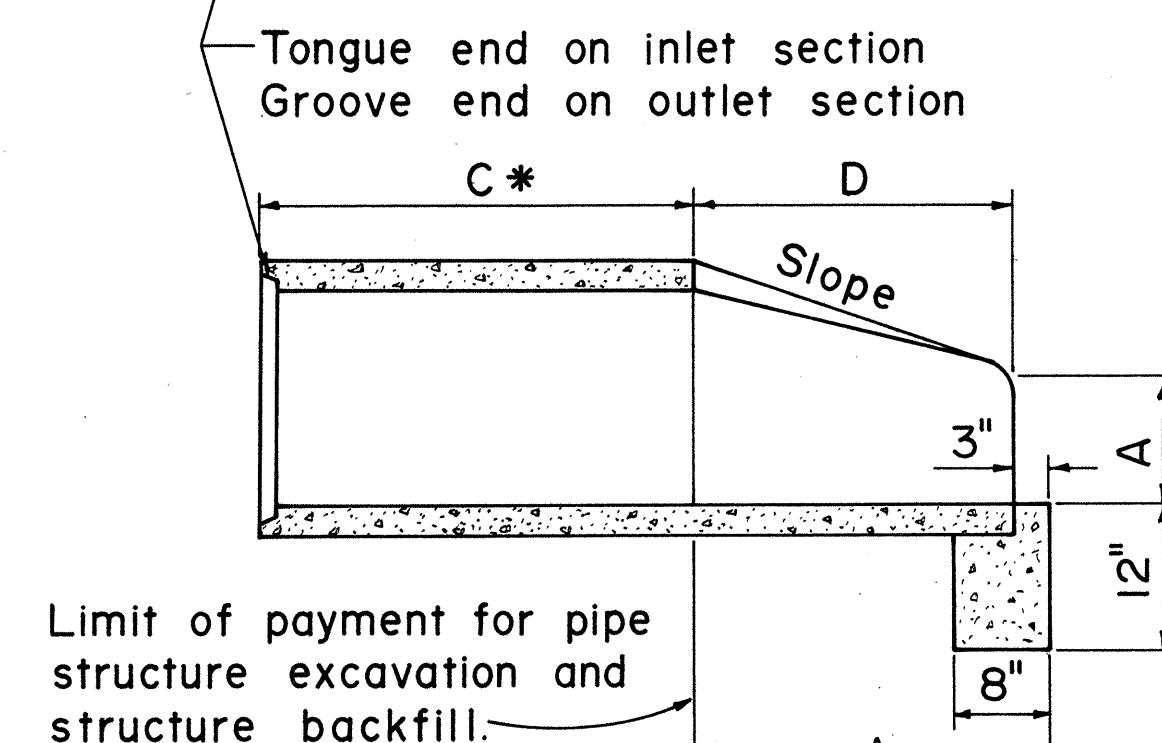
- All 3pc. bodies to have 0.109" thick sides and 0.138" thick center panels. Width of center panels to be greater than 20% of the pipe periphery. Multiple panel bodies to have lap seams which are to be tightly joint by  $\frac{3}{8}$ " galvanized rivets or bolts.
- Reinforced edges to be supplemented with galvanized stiffener angles for the 60" thru 84" round, 77"x 52" and 83" x 57" pipe - arch sizes. The angles will be 2"x 2"x  $\frac{1}{4}$ " for the 60" thru 72" round, 77" x 52" and 83" x 57" pipe - arch sizes and 2 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " x  $\frac{1}{4}$ " for 78" and 84" round. The angles to be attached by  $\frac{3}{8}$ " galvanized nuts and bolts.
- Angle reinforcement will be placed under the center panel seams on the 77" x 52" and 83" x 57" pipe - arch sizes.
- Galvanized toe plate to be available as an accessory when specified.
- End of pipe to be finished with annular corrugations to conform to flared end section so that no leakage results from the connection. Other designs may be used with approval of the Engineer.
- Contractor has the option of using either Type A or B "Precast Concrete Flared End Section".



END VIEW

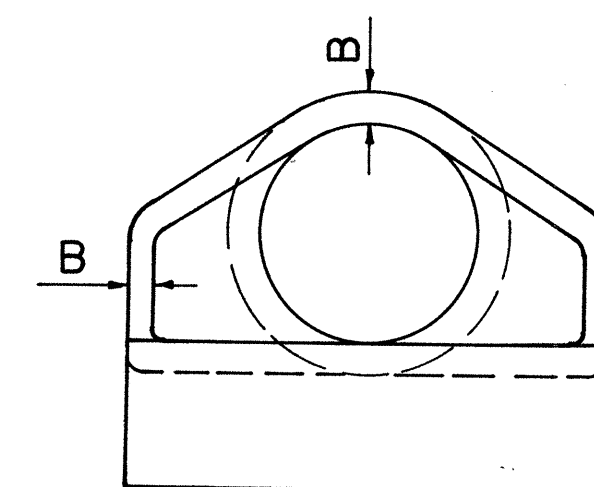
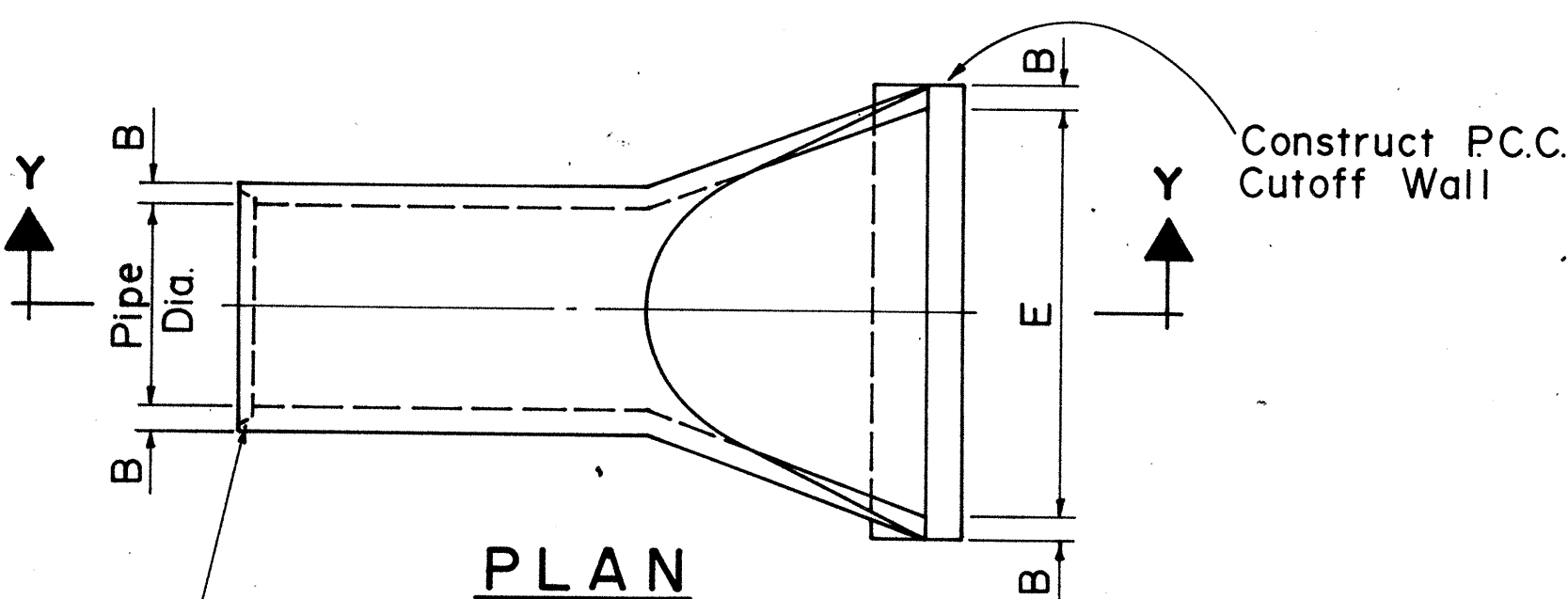
\*C dimension shall be as desired by manufacturer and will be paid for at the price paid for concrete pipe.

MINIMUM DIMENSIONS						
PIPE DIA.	A	B	C*	D	E	SLOPE
12"	4"	2"		2'-0"	2'-0"	2:1 or Flatter
18"	9"	2 $\frac{1}{2}$ "		2'-3"	3'-0"	
24"	9 $\frac{1}{2}$ "	3"		3'-7 $\frac{1}{2}$ "	4'-0"	
30"	1'-0"	3 $\frac{1}{2}$ "		4'-6"	5'-0"	
36"	1'-3"	4"		5'-3"	6'-0"	
42"	1'-9"	4 $\frac{1}{2}$ "		5'-3"	6'-6"	
48"	2'-0"	5"		6'-0"	7'-0"	
54"	2'-3"	5 $\frac{1}{2}$ "		5'-5"	7'-6"	



Structure excavation and structure backfill included in price paid for flared end section.

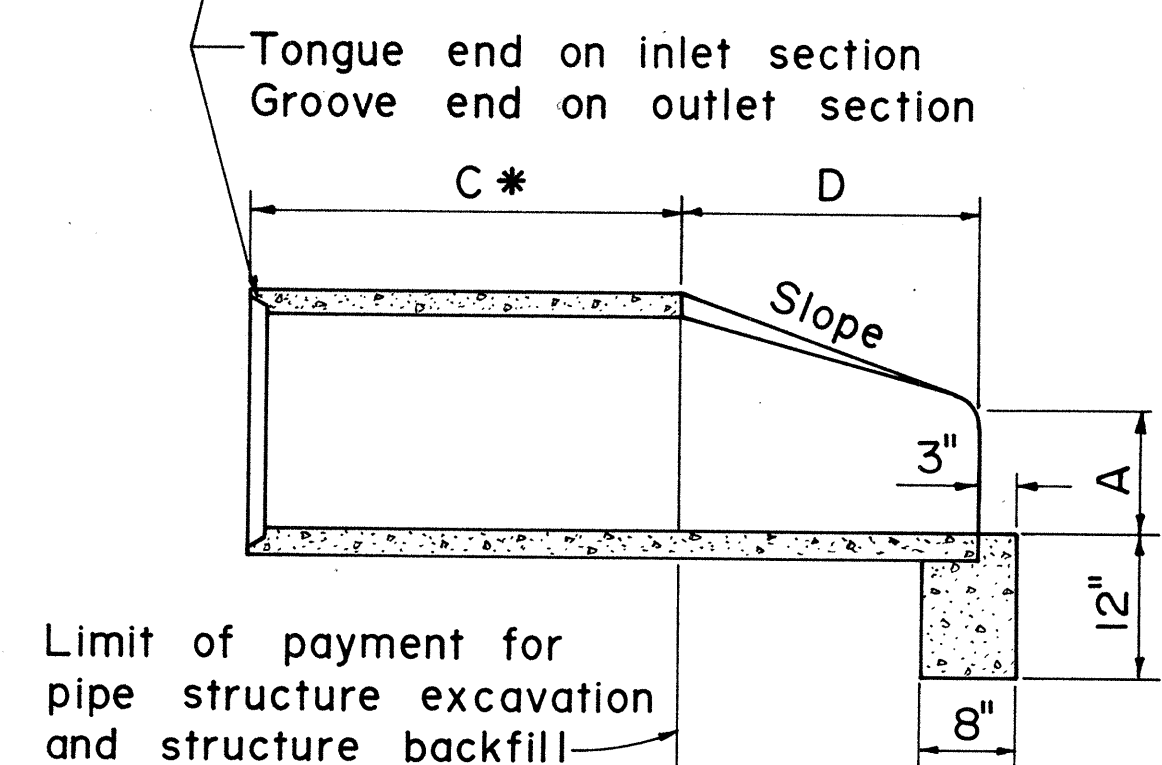
## SECTION X-X PRECAST CONCRETE FLARED END SECTION TYPE A



END VIEW

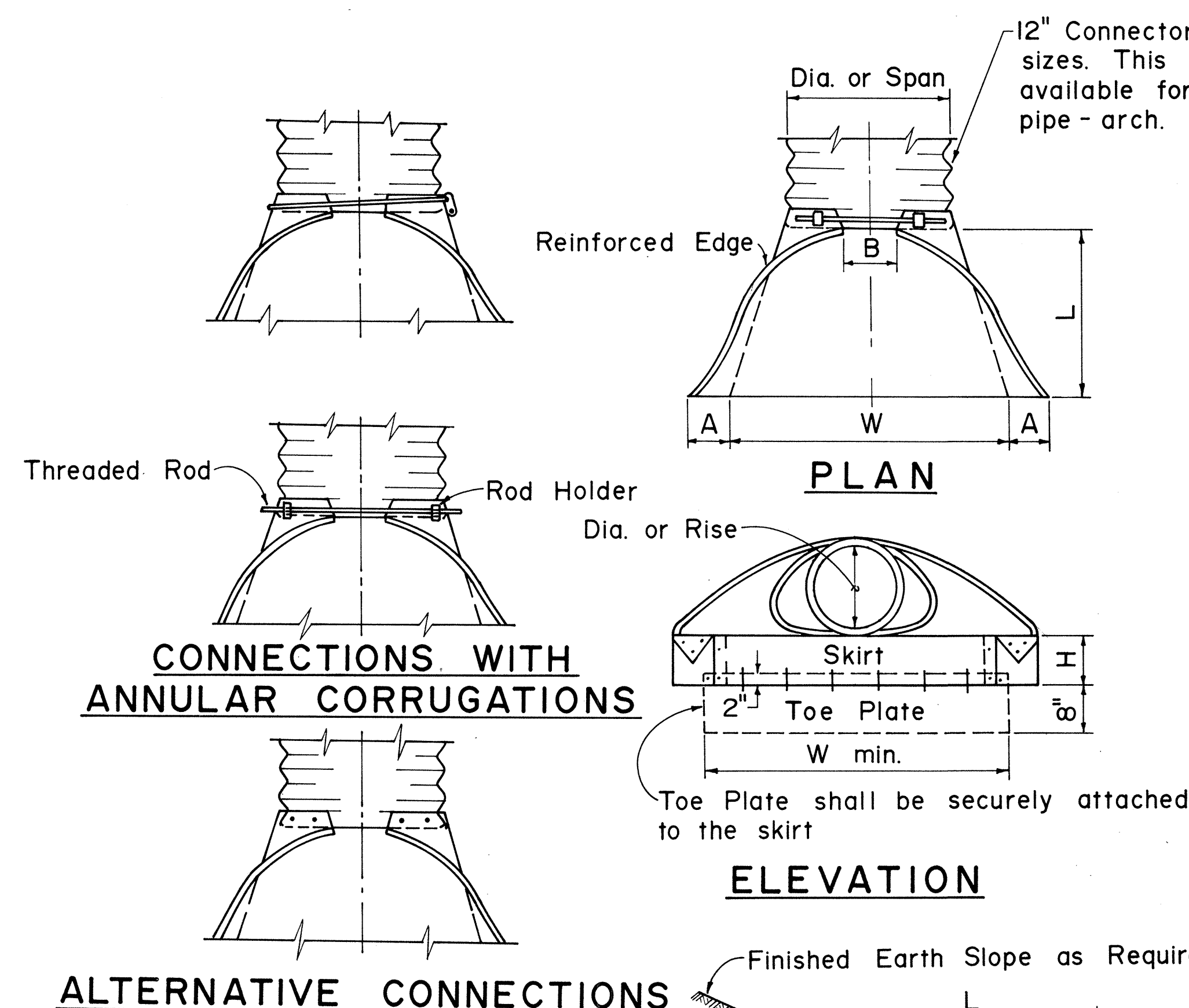
\*C dimension shall be as desired by manufacturer and will be paid for at the price paid for concrete pipe.

MINIMUM DIMENSIONS						
PIPE DIA.	A	B	C*	D	E	SLOPE
12"	4"	1 $\frac{3}{4}$ "		1'-10"	2'-0"	2:1 or Flatter
18"	9"	2"		2'-1"	3'-0"	
24"	9 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "		3'-6"	4'-0"	
30"	1'-0"	3"		4'-5"	5'-0"	
36"	1'-3"	3 $\frac{3}{8}$ "		5'-2"	6'-0"	
42"	1'-9"	3 $\frac{3}{4}$ "		5'-3"	6'-6"	
48"	2'-0"	4 $\frac{1}{4}$ "		6'-0"	7'-0"	
54"	2'-3"	4 $\frac{5}{8}$ "		5'-6"	6'-10"	



Structure excavation and structure backfill included in price paid for flared end section.

## SECTION Y-Y PRECAST CONCRETE FLARED END SECTION TYPE B



CONNECTIONS WITH ANNULAR CORRUGATIONS

Limit of payment for pipe structure excavation and structure backfill

Structure excavation and structure backfill included in price paid for flared end section

Toe Plate if required by Special Provisions.

## TYPICAL CROSS-SECTION

CIRCULAR PIPES					
INCHES	DIMENSIONS-INCHES				
	A	B	H	L	W
PIPE DIA.	1±	MAX	1±	1 $\frac{1}{2}$ ±	2±
12	6	6	6	21	24
15	7	8	6	26	30
18	8	10	6	31	36
21	9	12	6	36	42
24	10	13	6	41	48
30	12	16	8	51	60
36	14	19	9	60	72
42	16	22	11	69	84
48	18	27	12	78	90
54	18	30	12	84	102
60	18	33	12	87	114
66	18	36	12	87	120
72	18	39	12	87	126
78	18	42	12	87	132
84	18	45	12	87	138

PIPE - ARCHES					
INCHES	DIMENSIONS-INCHES				
	A	B	H	L	W
SPAN RISE	1±	MAX	1±	1 $\frac{1}{2}$ ±	2±
21	15	7	10	6	23
24	18	8	12	6	28
28	20	9	14	6	32
35	24	10	16	6	39
42	29	12	18	8	46
49	33	13	21	9	53
57	38	18	26	12	63
64	43	18	30	12	70
71	47	18	33	12	77
77	52	18	36	12	77
83	57	18	39	12	77

NO.	REVISION	APPROVED BY	DATE
1.	Replaces Sht. DH 14 approved 12-17-69	H.T.	6/22/79
2.	Delete thickness from table for C.M.P. culverts	J.D.	4-7-83

APPROVAL RECOMMENDED:

*T. Takano* 6-19-79  
HYDRAULIC DESIGN ENGINEER DATE

APPROVED:

*Harold Zaleski* 6-22-79  
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

STANDARD DETAILS

FLARED END SECTION  
FOR CULVERTS

Not To Scale Date June 1979

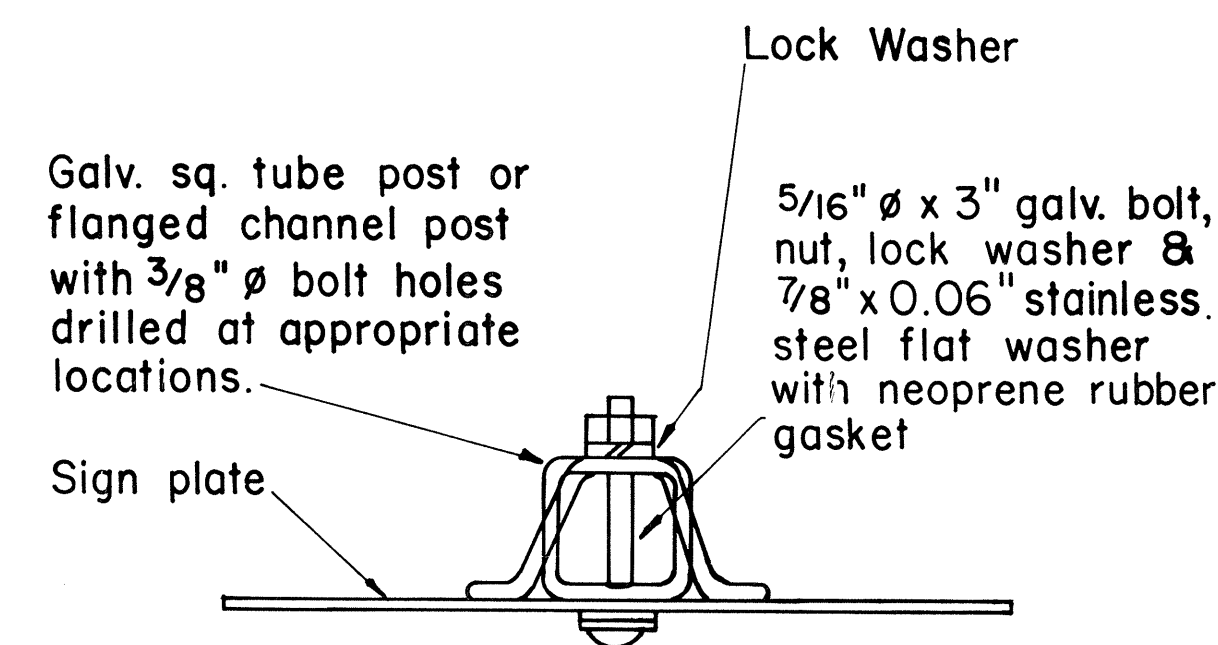
SHEET NO. 2 OF 2 SHEETS DH 14



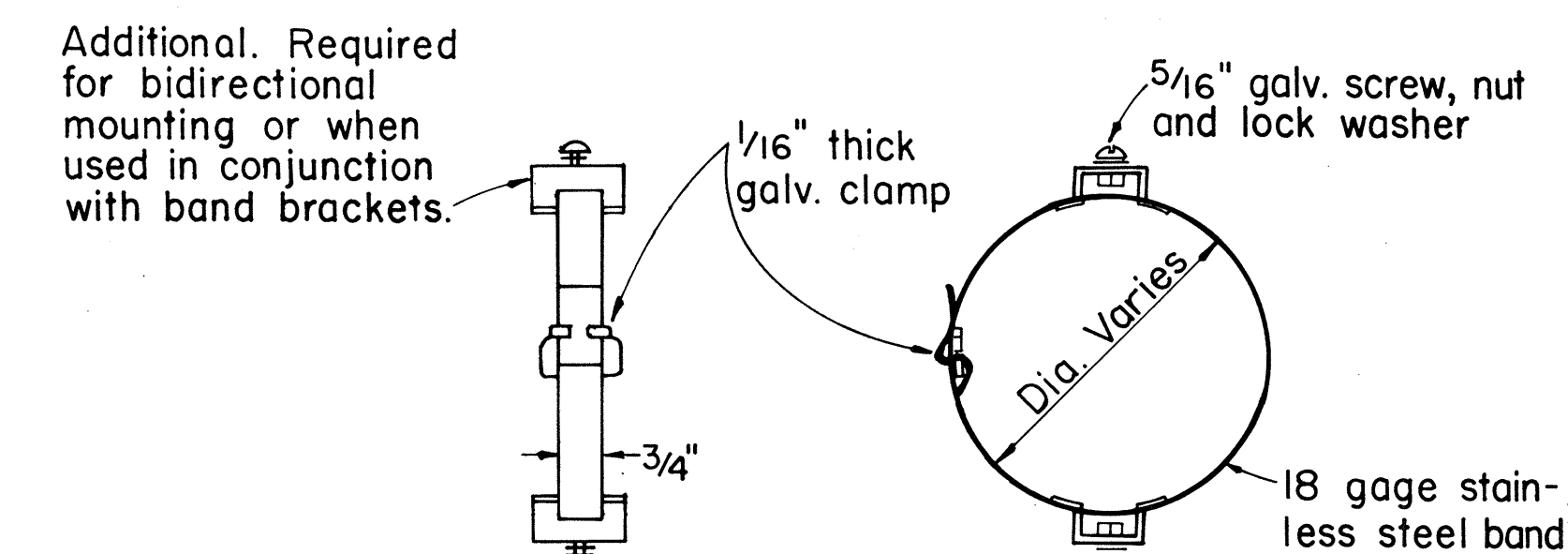
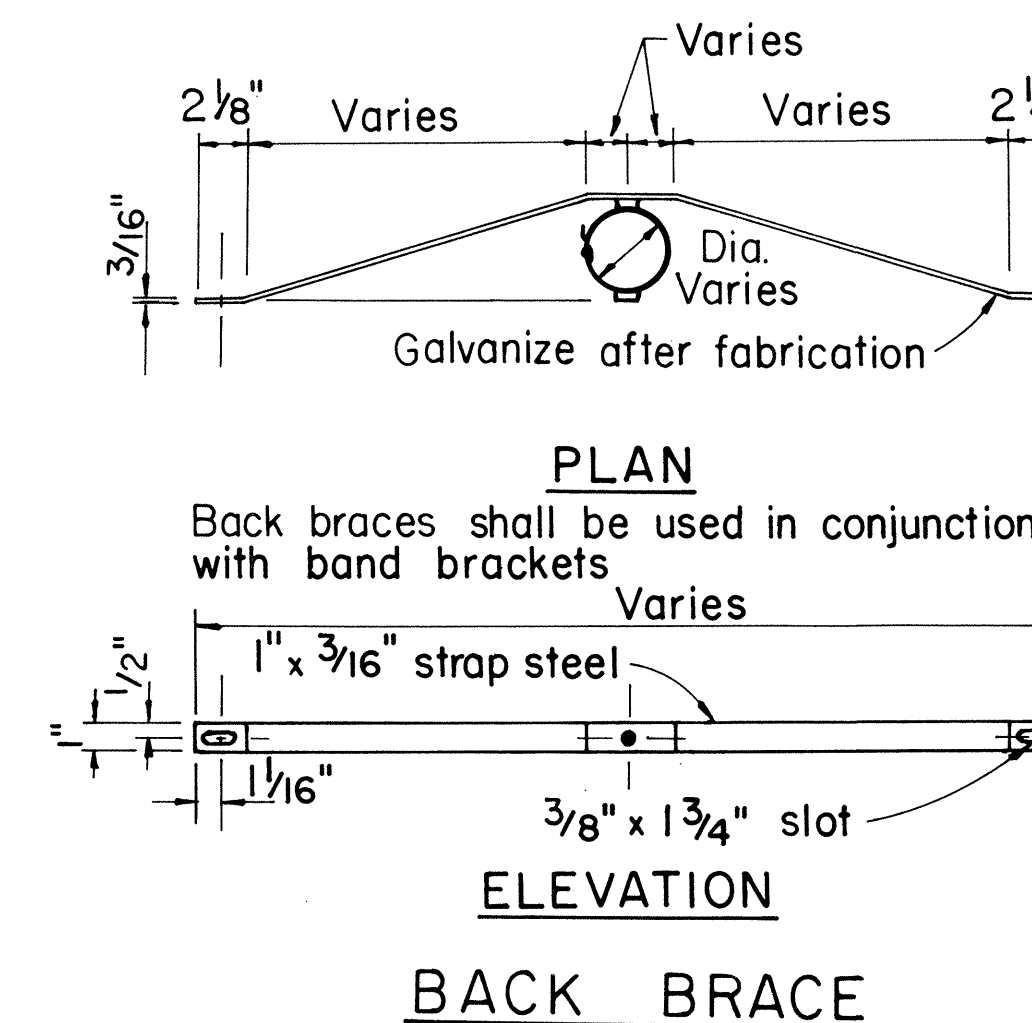
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-3400 (2)	1984	13	17

## GENERAL NOTES

- Signs shall be placed in conformance with positions shown and described in the "Manual on Uniform Traffic Control Devices for Streets and Highways", 1978, Part II, Section 2A-21, as amended, and as supplemented herein.
- Sign 48" and wider or larger than 10 sq. ft. in area shall be mounted on two or more sign posts except as noted below.
- Signs 48" and wider or larger than 10 sq. ft. in area may be mounted on objects other than sign posts (i.e. on highway lighting poles) as follows:
  - Signs 48" and wider but less than 10 sq. ft. in area shall be mounted with a minimum of two sets of band bracket and back braces.
  - Signs larger than 10 sq. ft. and less than 28 sq. ft. in area shall be mounted with a minimum of two sets of band brackets and back braces.
  - Signs larger than 28 sq. ft. in area shall be mounted with a minimum of three sets of band bracket and back braces.
- All parking restriction signs with arrows shall be mounted 45° to the line of traffic flow.
- Sign posts shall extend 3 1/2" above each sign, where required, for attachment of City and County street name signs.
- (R) or (L) indicates right or left and shown on the plans.
- See plans for special details of signs along bikeways.
- The minimum lateral distances shown are guidelines and shall be exceeded whenever possible. The Contractor shall place signs at the maximum practical lateral distance from the edge of the traveled way up to 30 feet and shall utilize protected locations whenever possible. Final locations of all signs shall be approved by the Engineer.
- Signs in medians shall be placed at midpoint of median up to a maximum distance of 30 feet from the edge of traveled way. When appropriate, signs for opposing directions shall be placed back to back.
- Anchor bases shall be installed for all signpost installations, unless otherwise shown or directed. See sheets DT 100A and DT 100B.



## GALVANIZED SQUARE TUBE OR FLANGED CHANNEL POST



## LEFT SIDE VIEW BAND BRACKET PLAN

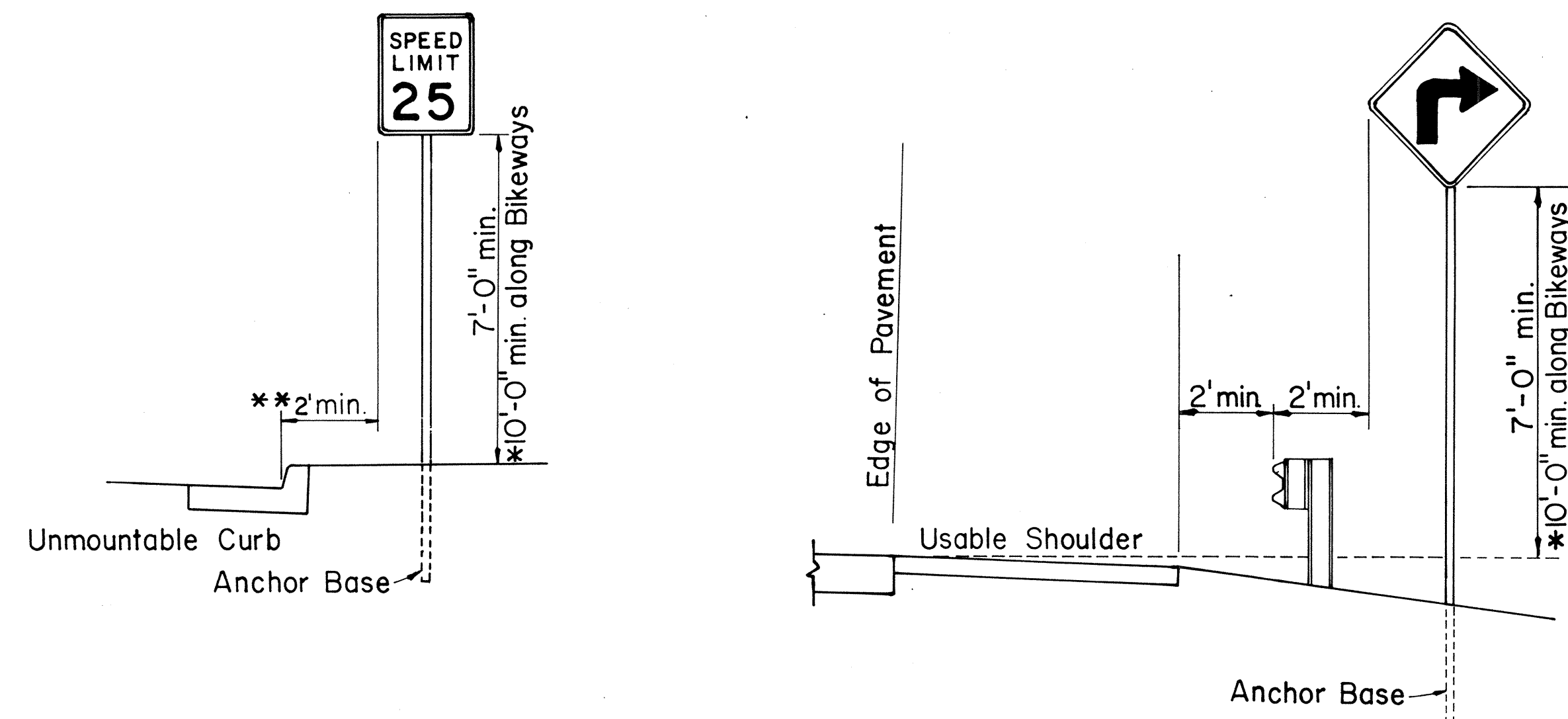
APPROVAL RECOMMENDED:  
*Euichi Tanaka*  
 TRAFFIC ENGINEER  
 DATE: 10/14/83

APPROVED:  
*P. J. Jiriyama*  
 ASSISTANT CHIEF, ENGINEERING  
 DATE: 10-18-83

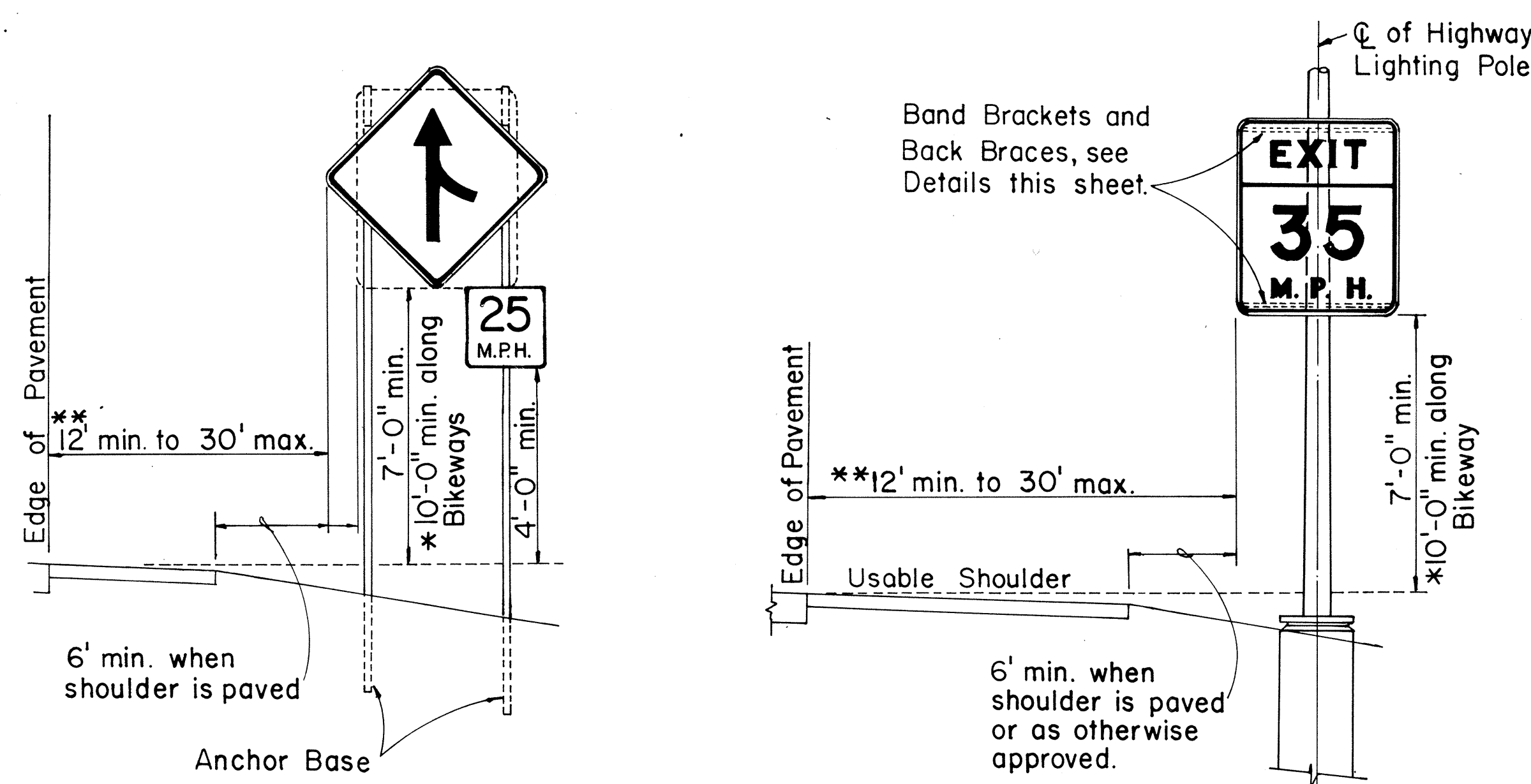
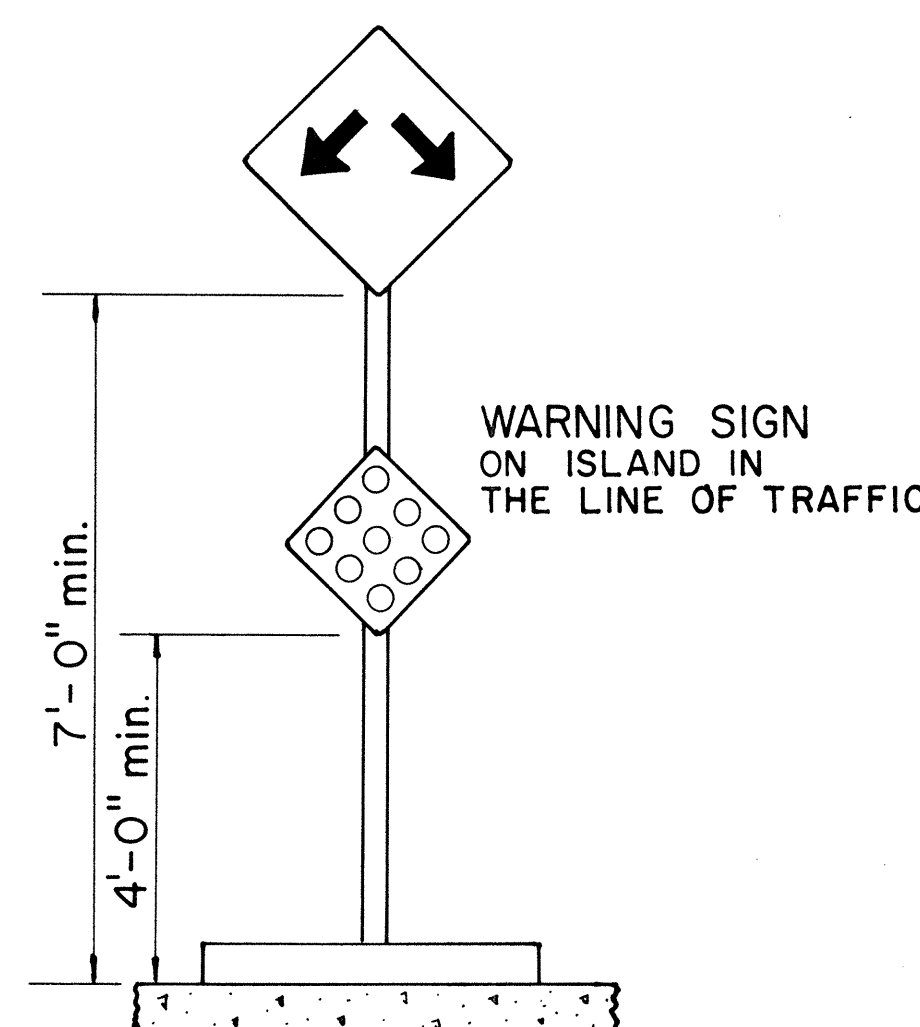
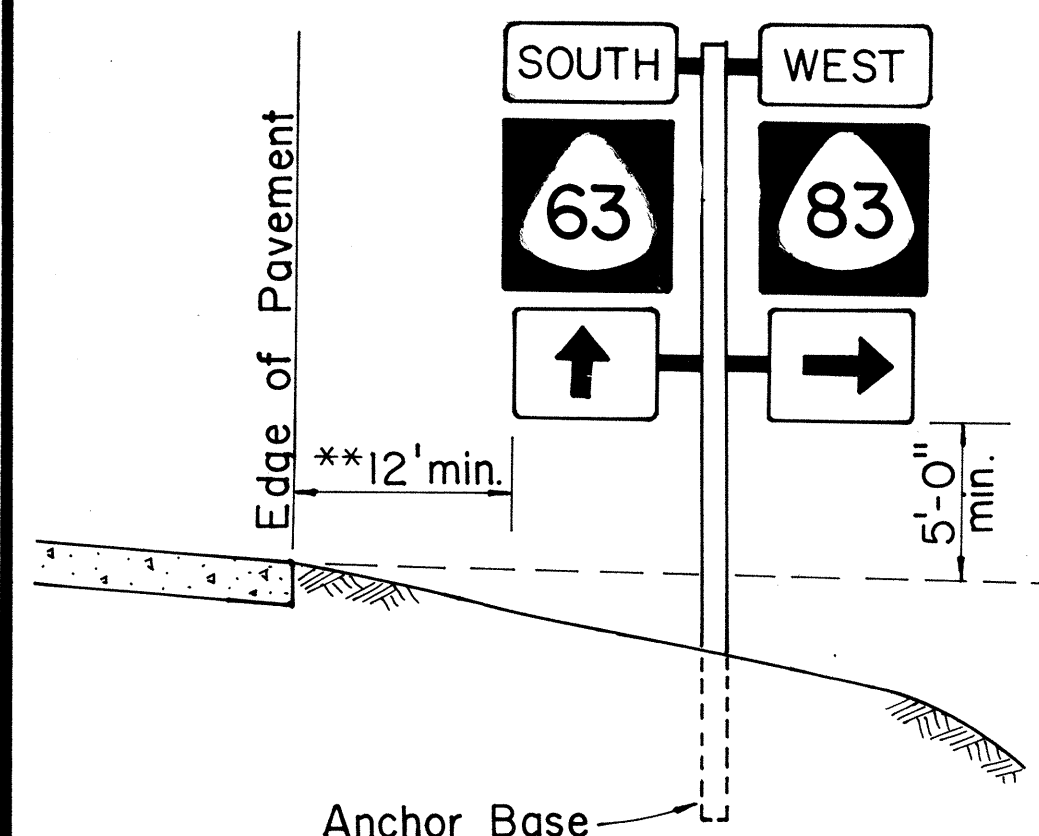
## TYPICAL MOUNTING DETAILS

NO.	REVISION	APPROVED BY	DATE
1	Supercedes Sht. DT 100 approved 11/15/77	<i>[Signature]</i>	10-18-83

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STANDARD DETAILS	
MISCELLANEOUS SIGN DETAILS	
Not to Scale:	Oct. 1983
SHEET NO. 3 OF 7 SHEETS DT 100	



## ROADSIDE ASSEMBLY RURAL DISTRICT



## HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATION

DATE	DESIGNED BY	CHECKED BY
NO.	QUANTITIES BY	DESIGNED BY
ORIGINAL PLAN	NOTE BOOK	CHECKED BY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-8400 (2)	1984	14	19

A or A <sub>1</sub>	C	C <sub>1</sub>
36"	6"	-
48"	9"	19"
60"	12"	24"

NOTE: Frame stiffeners are required when D is greater than 24". See Gen. Note 4.

## GENERAL NOTES

- Sign posts and base posts shall be flanged channel type structural steel conforming to ASTM A 499 and galvanized in accordance with ASTM A 123.  
NOMINAL DIMENSIONS:  
2.50 lbs./ft. - 3.125" x 1.562"  
4.00 lbs./ft. - 3.500" x 1.750"
- Retainer - Spacer Strap shall be AISI 1020 steel and galvanized in accordance with ASTM A 123.
- Retainer and Connector Bolts shall be 5/16 - 18 UNC x 1.75" long hex. head, integral flange conforming to ASTM A 354 Grade BC. Nuts shall be 5/16 - 18 UNC hex. head, integral flange conforming to ASTM A 563 Grade D. All bolts and nuts shall be cadmium plated per Federal spec. QQP 416 B, Class 2, Type 2.
- All accessories, fittings and stiffener details (as required) shall be submitted to Engineer for approval 20 days prior to installation.
- For additional details see sht. DT 100.
- Basic formulas for use with the windload charts:  
Factor =  $A \times B \times H$   
Therefore, if sign area (A x B) is known,  
Maximum H =  $\frac{\text{Factor}}{\text{sign area (A x B)}}$   
and if H is known,  
Maximum sign area (A x B) =  $\frac{\text{Factor}}{H}$

APPROVAL RECOMMENDED:

*Eishi Tanaka* 9/21/82  
TRAFFIC ENGINEER DATE

APPROVED:

ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

STANDARD DETAILS

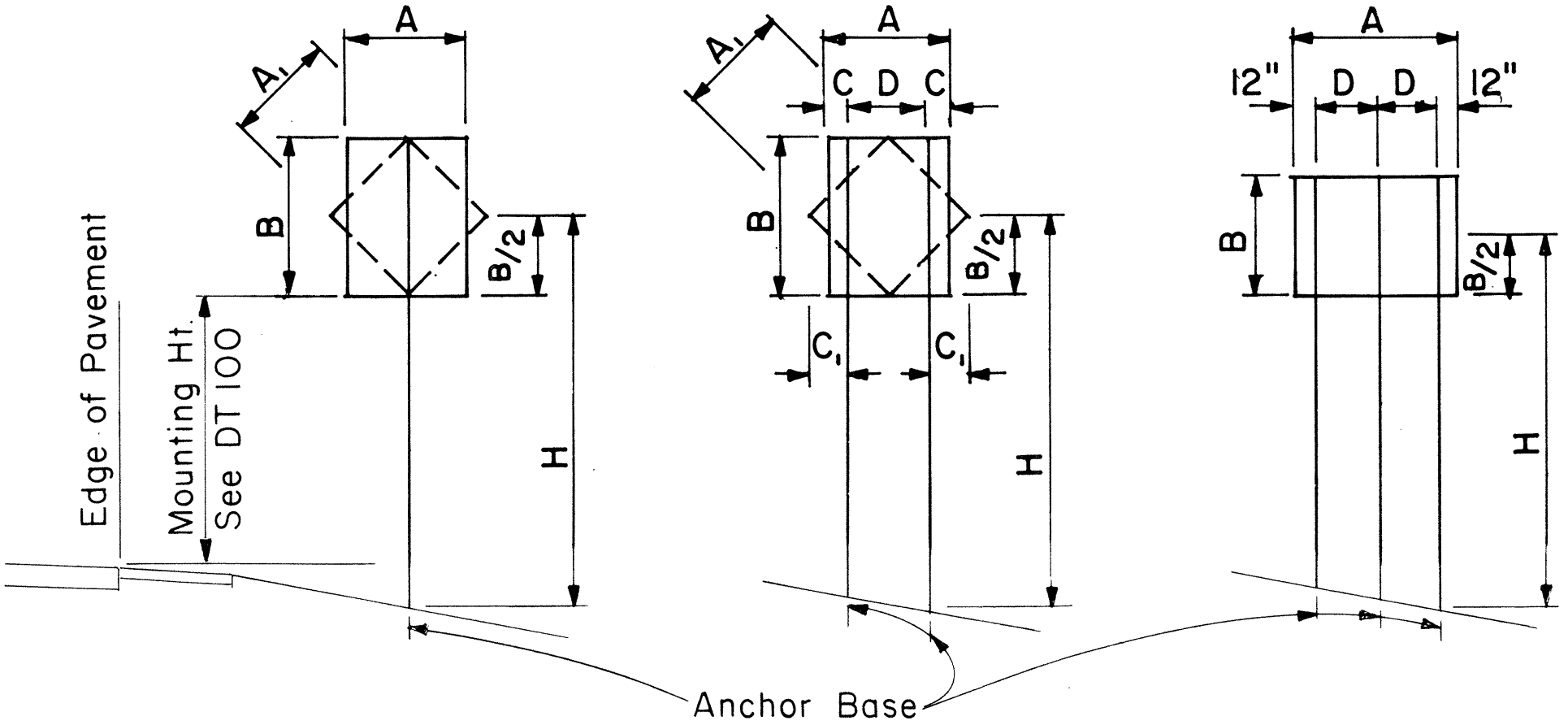
GALVANIZED FLANGED CHANNEL

SIGN POST MOUNTING

Scale: As Shown

Date: Sept. 1982

SHEET No. 4 OF 9 SHEETS DT 100A



**1-POST** Sign area 10 sq. ft. and less  
**2-POST** Sign area greater than 10 sq. ft. or A = 48" - 60"  
**3-POST** A = greater than 60"

## TYPICAL INSTALLATION

Not to Scale

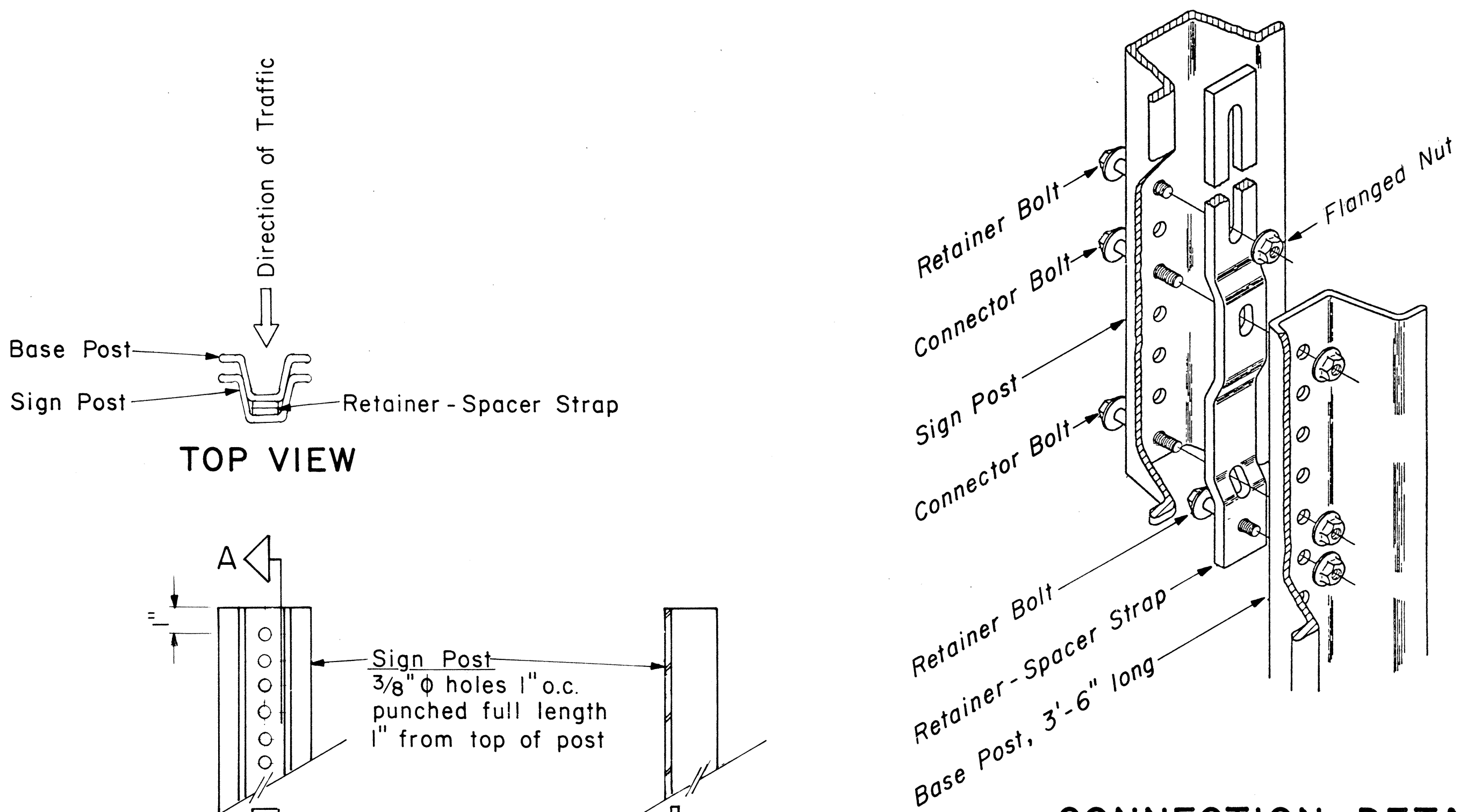
FLANGED CHANNEL: 1-POST INSTALLATION							
Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)					
		7	8	9	10	11	12
2.50 lbs./ft.	57	8.14	7.13	6.33	5.70	5.18	4.75
4.00 lbs./ft.	112	-	-	-	-	-	9.33
		A x B (Area, sq. ft.)					

FLANGED CHANNEL: 2-POST INSTALLATION							
Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)					
		7	8	9	10	11	12
2.50 lbs./ft.	124	17.71	15.50	13.77	12.40	11.27	10.33
4.00 lbs./ft.	241	34.43	30.13	26.78	24.10	21.91	20.08
		A x B (Area, sq. ft.)					

FLANGED CHANNEL: 3-POST INSTALLATION							
Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)					
		7	8	9	10	11	12
2.50 lbs./ft.	187	26.71	23.38	20.78	18.70	17.00	15.58
4.00 lbs./ft.	362	51.71	45.25	40.22	36.20	32.91	30.17
		A x B (Area, sq. ft.)					

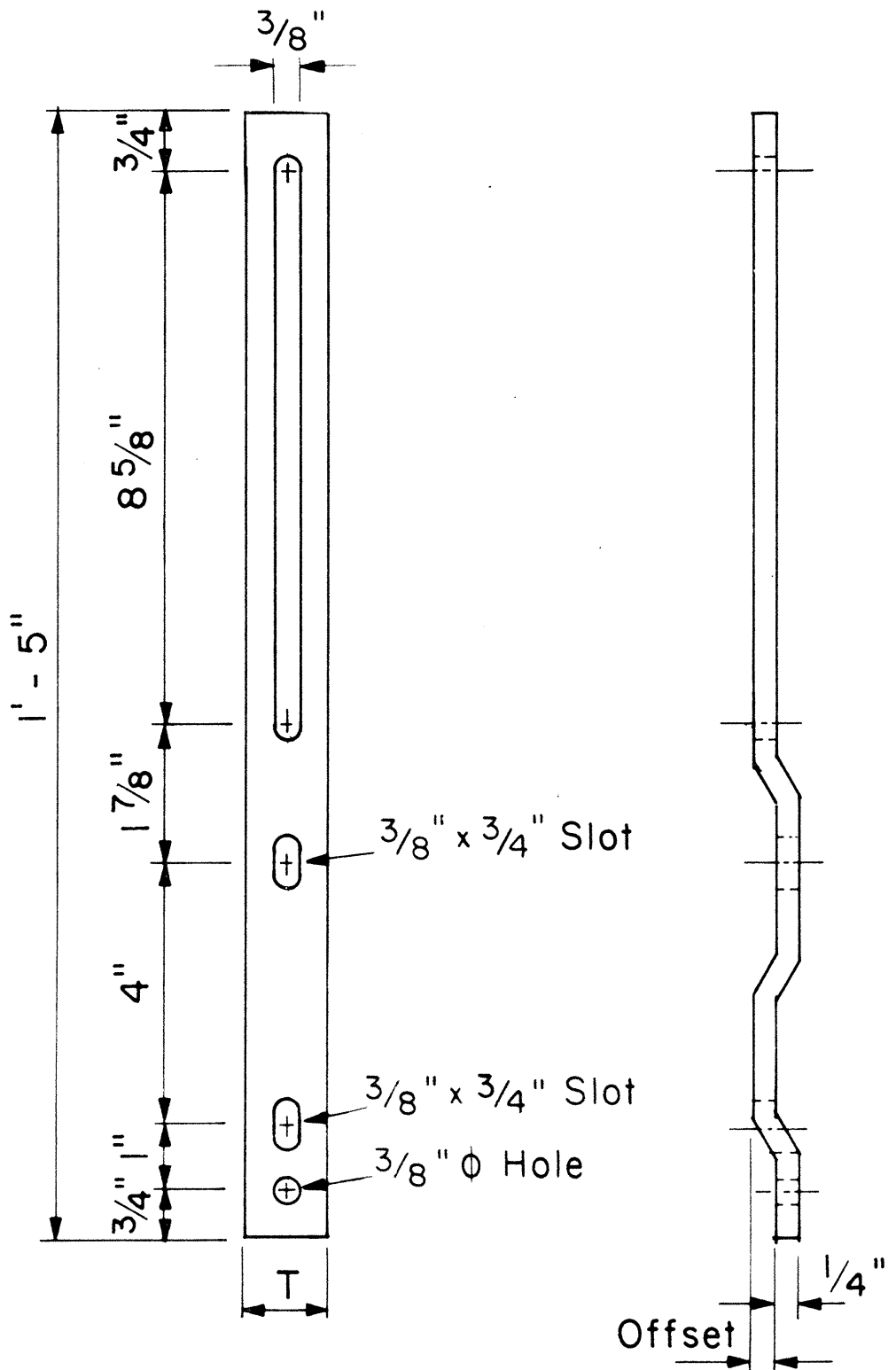
## WINDLOAD CHARTS

NO.	REVISION	APPROVED BY	DATE



## CONNECTION DETAIL

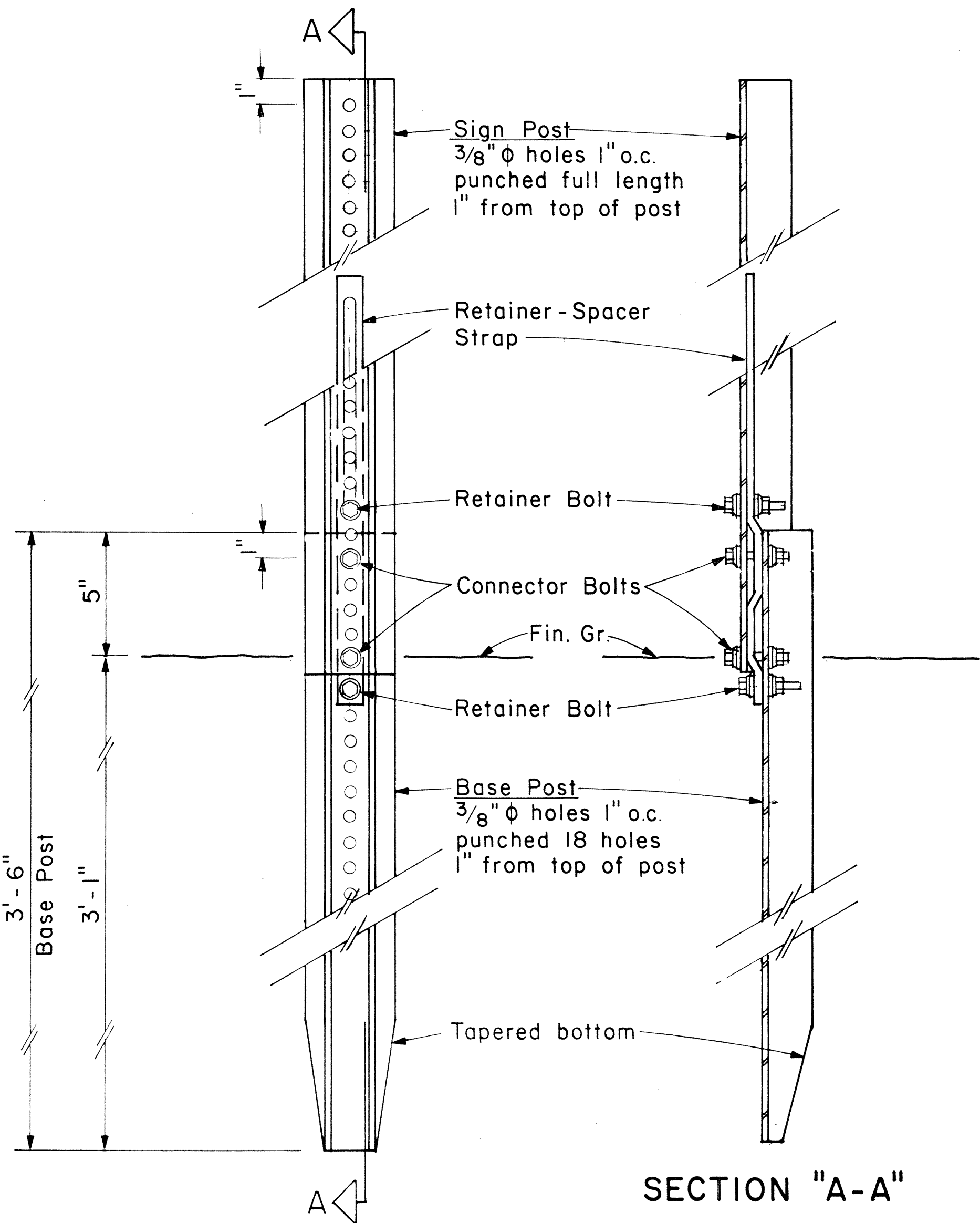
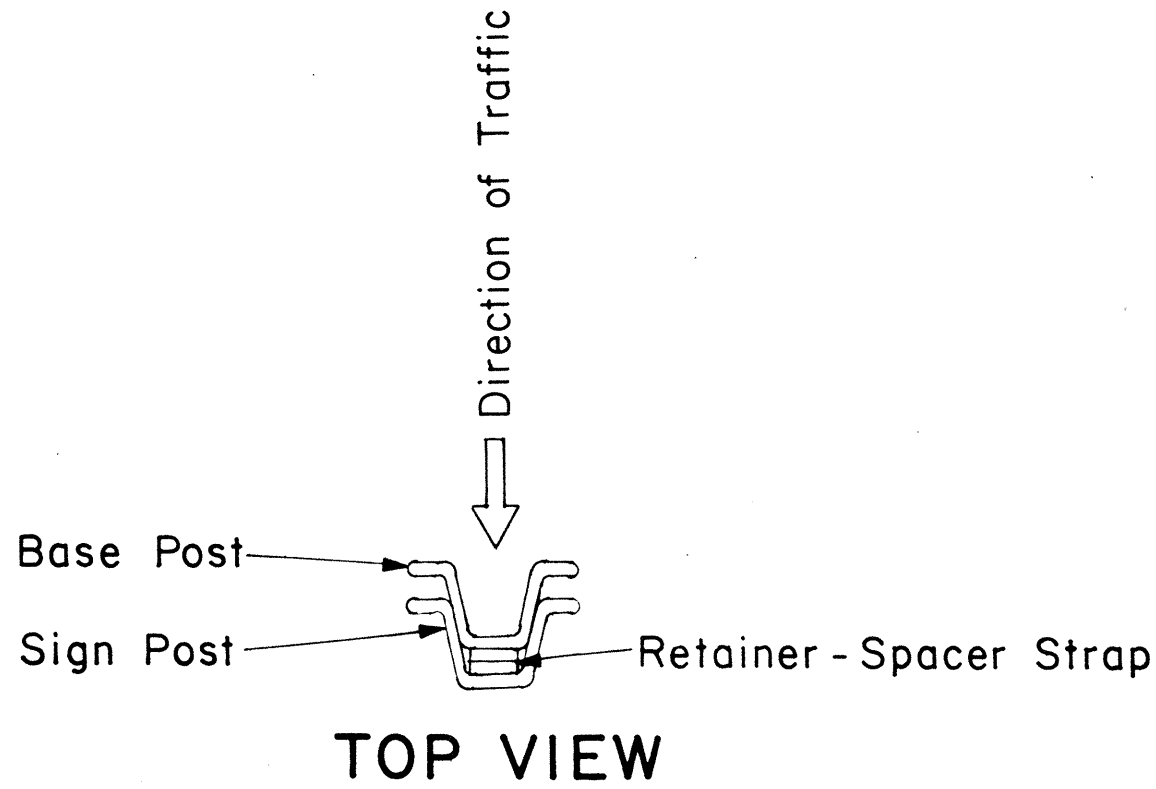
Not to Scale



## RETAINER-SPACER STRAP

Not to Scale

RETAINER-SPACER STRAP		
Post Size	T	Offset
2.50 lbs./ft.	1.00"	0.145"
4.00 lbs./ft.	1.12"	0.280"



## BACK VIEW

## ANCHOR BASE DETAIL

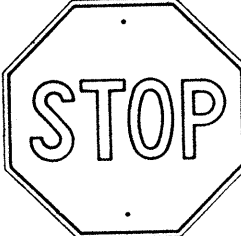
Scale: 3" = 1' - 0"

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

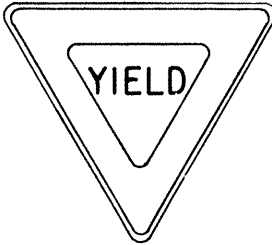
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DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
NO.	



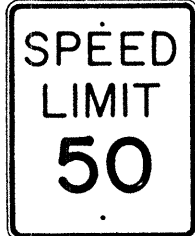
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-3400(2)	1984	15	17



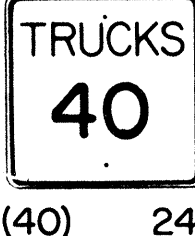
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R1-1-A 36"x 36"  
4-WAY  
R1-3 12"x 6"  
R1-3-A 18"x 9"



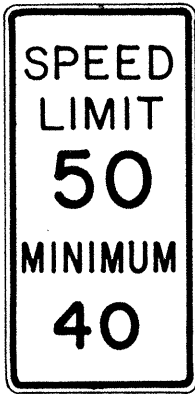
R1-2 36"x36"x36"  
R1-2-A 48"x48"x48"



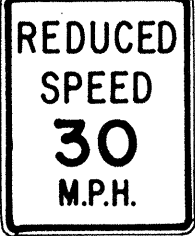
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R2-1(50)-A 48"x 60"




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"



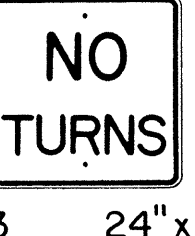
R2-5b(30) 24"x 30"  
R2-5b(30)-A 48"x 60"




R3-1 24"x24"  
24"x18"  
R3-1-A 48"x48"  
48"x36"



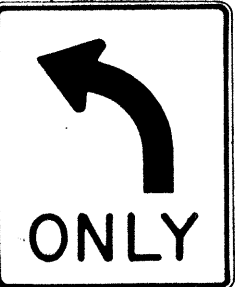
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24"x18"  
R3-2-A 48"x48"  
48"x36"



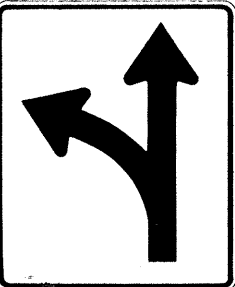
R3-3 24"x 24"  
R3-3-A 48"x 48"




R3-4 24"x 24"  
24"x18"  
R3-4-A 48"x48"  
48"x36"



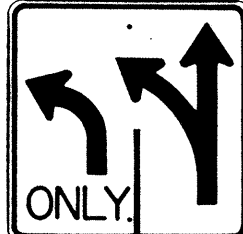
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R3-5(L)-A 48"x 60"



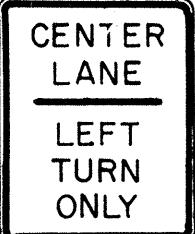
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R3-6(L)-A 48"x 60"




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"



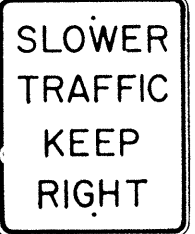
R3-9 24"x 30"



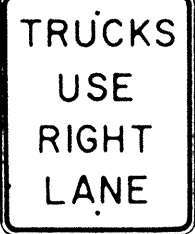
R4-1 24"x 30"



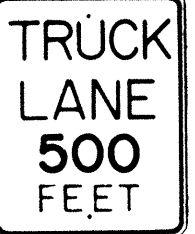
R4-2 24"x 30"




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




R4-5 24"x 30"



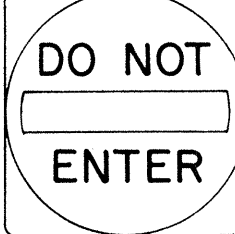
R4-6(500) 24"x 30"



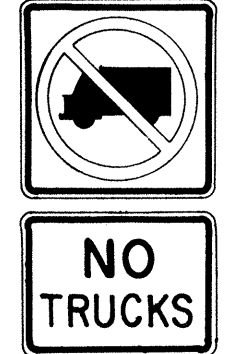
R4-7 24"x30"  
24"x18"



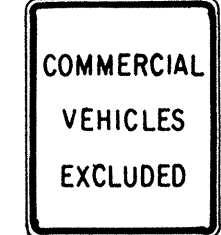
R4-8 24"x30"  
24"x18"



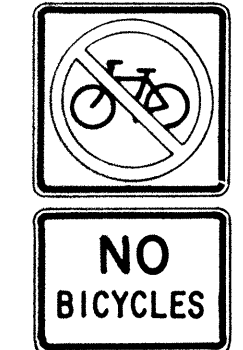
R5-1 30"x 30"  
R5-1-A 48"x 48"




R5-2 24"x 24"  
24"x18"




R5-4 24"x 30"




R5-6 24"x24"  
24"x18"




R5-9 36"x 24"



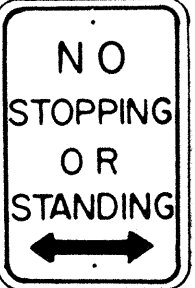
R6-1(R) 36"x12"



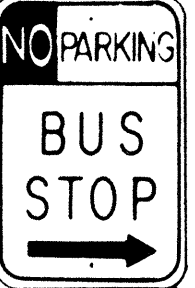
R6-2(R) 18"x24"



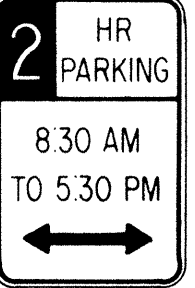
R7-1 12"x 18"  
R7-1-A 24"x 30"




R7-4 12"x18"  
R7-4-A 24"x 30"




R7-1,7(R) 12"x 18"




R7-108 12"x 18"




R7-201 12"x 6"  
R7-201-A 24"x12"




R8-1 24"x 30"




R8-2 24"x 30"



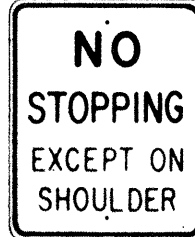
R8-3 24"x 30"



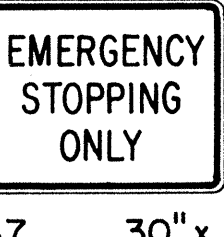
R8-4 30"x 24"  
R8-4-A 48"x 36"




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"



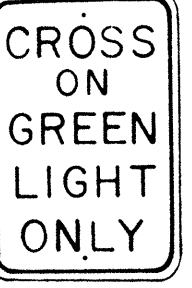
R9-2 12"x 18"



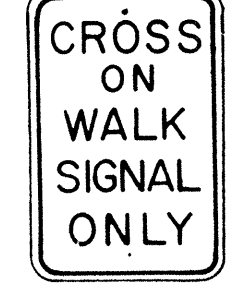
R9-3 12"x 18"



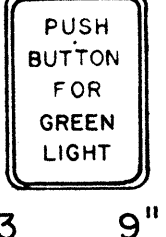
R9-4 18"x 24"




R10-1 12"x 18"




R10-2 12"x 18"




R10-3 9"x 12"



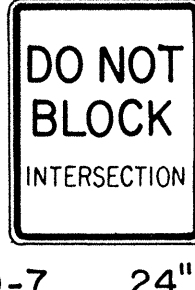
R10-4 9"x 12"



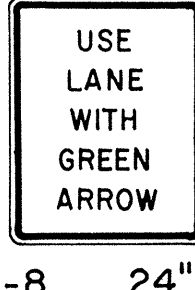
R10-5 24"x 30"



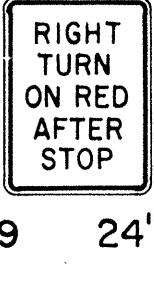
R10-6 24"x 36"



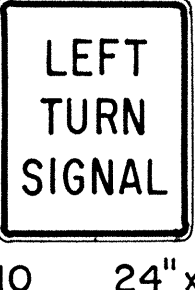
R10-7 24"x 30"



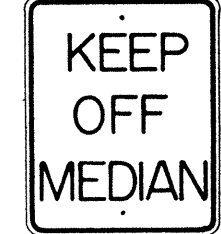
R10-8 24"x 30"




R10-9 24"x 30"



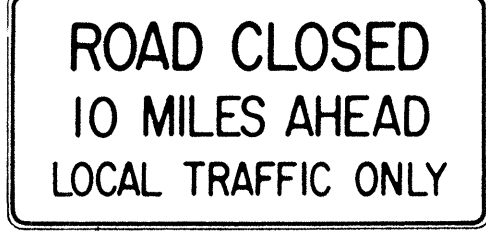
R10-10 24"x 30"




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," 1972, and as amended.
- 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.
- All signs shall be erected without educational plaques unless called for in the plans.

DATE

SURVEY PLOTTED BY

DRAWN BY

DESIGNED BY

QUANTITIES BY

CHECKED BY

ORIGINAL PLAN

NOTE BOOK

No.

APPROVAL RECOMMENDED:

*Eishi Tanaka*

TRAFFIC ENGINEER

3/17/72

DATE

APPROVED:

*Valent J. Roberts*

ASSISTANT CHIEF, ENGINEERING

3-22-72

DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H.I.	3/20/72
2	Revised General Note 1.	H.I.	10/10/74
3	Added General Note 5	H.I.	8/2/77

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

STANDARD DETAILS

REGULATORY SIGNS

NOT TO SCALE

SHEET No. 5 OF 2 SHEETS DT 101

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-3400(2)	1984	16	17



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"



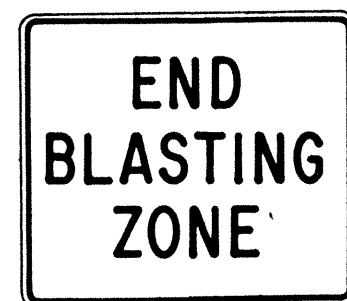
CW21-6 30" x 30"



CW22-1b 48" x 48"



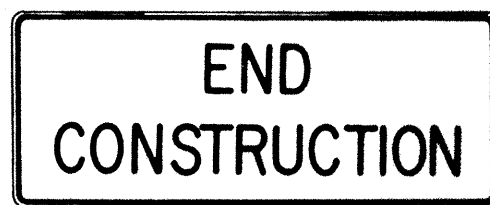
CW22-2 42" x 36"



CW22-3 42" x 36"



CG 20-1(5) 60" x 36"



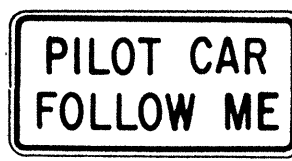
CG 20-2 60" x 24"



CM4-9(R) 30" x 24"



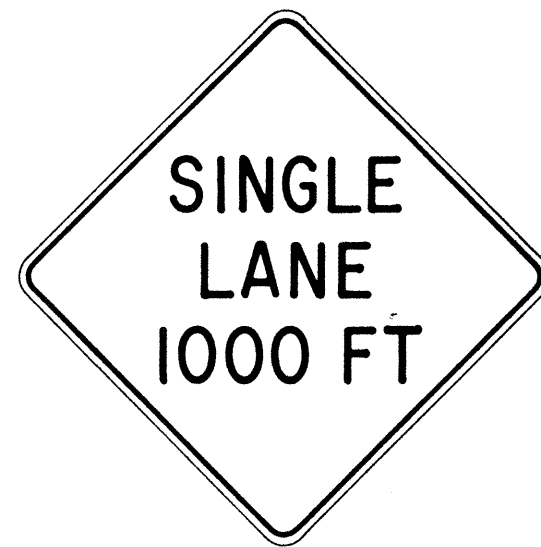
CM4-10(R) 48" x 18"



CG 20-4 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," 1972, and as amended.
- All construction signs shall be reflectorized.
- All construction 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.
- 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.

APPROVAL RECOMMENDED:

*Erich Tanaka*  
TRAFFIC ENGINEER

3/21/72  
DATE

APPROVED:

*Shirley Salsich*  
ASSISTANT CHIEF, ENGINEERING

2/22/72  
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	H.T.	3/22/72
2	Revised General Note 1	H.T.	10/19/74
3	Revised General Note 2	M	9-16-75
4	Revised General Note 2 and sign CG20-1(5)	H.T.	9-14-76

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

STANDARD DETAILS  
CONSTRUCTION SIGNS

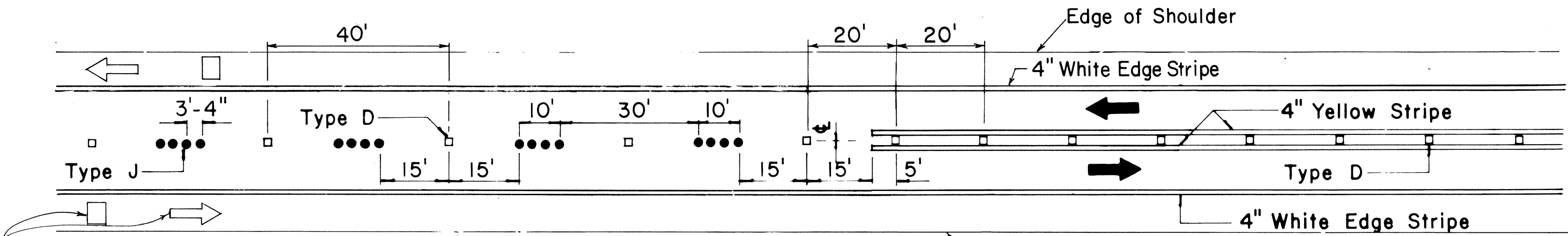
NOT TO SCALE

SHEET No. 6 OF 7 SHEETS DT 104

DESIGNED BY	DATE
CHECKED BY	
NOTED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

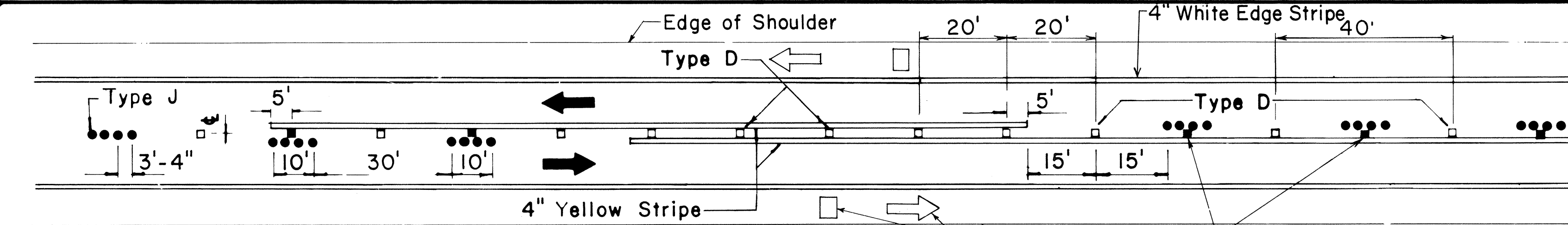


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-3400(2)	1984	17	19



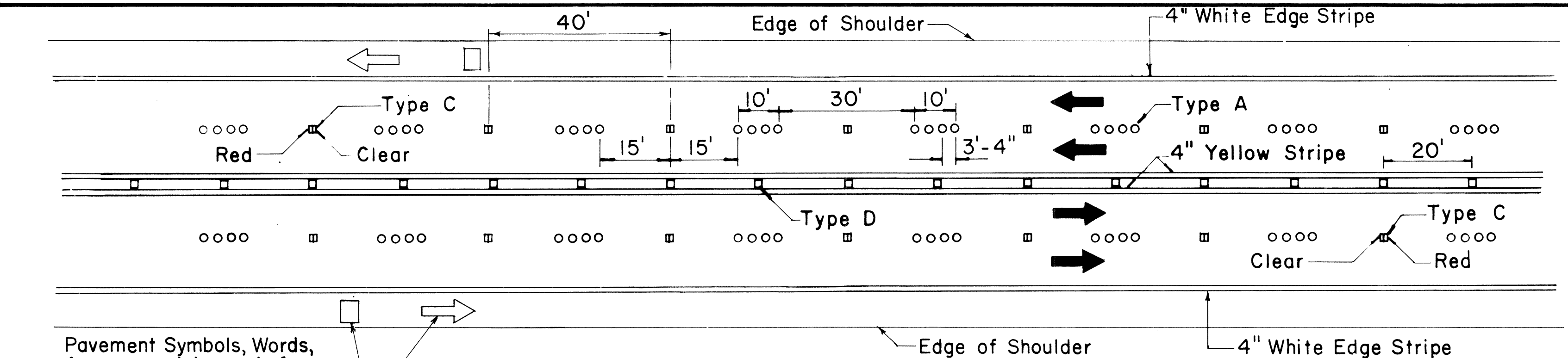
Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

## PASSING PERMITTED AND PASSING PROHIBITED

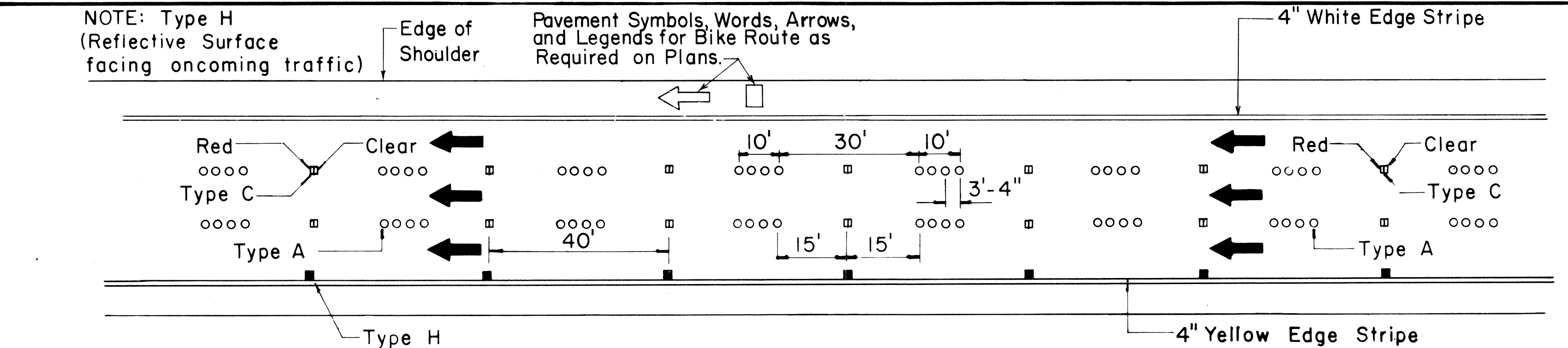


Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

## PASSING PROHIBITED ZONES

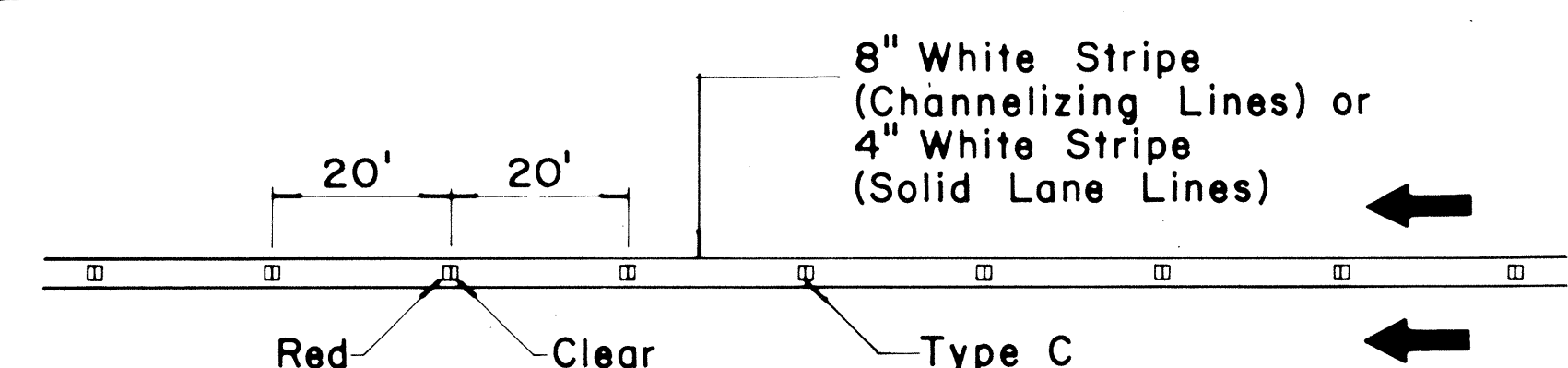


Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

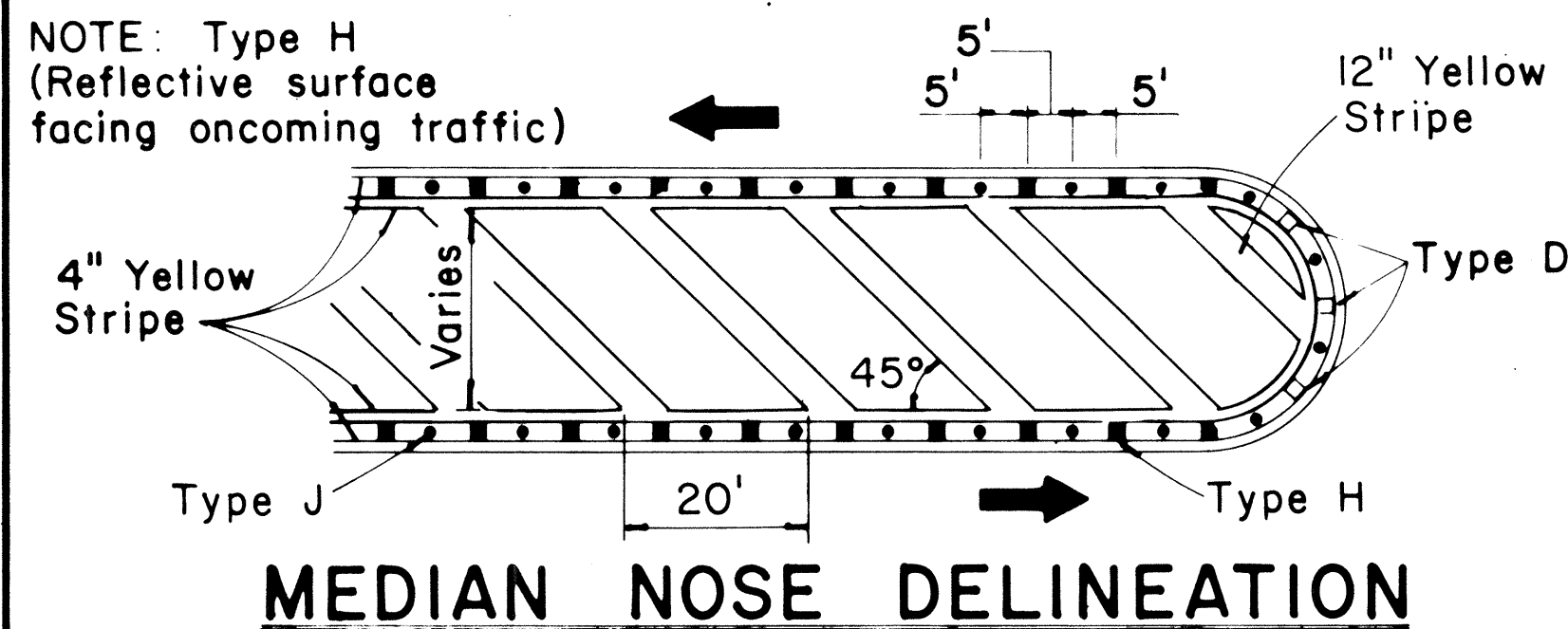


NOTE: Type H (Reflective Surface facing oncoming traffic)

Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.



## CHANNELIZING LINES OR SOLID LANE LINES



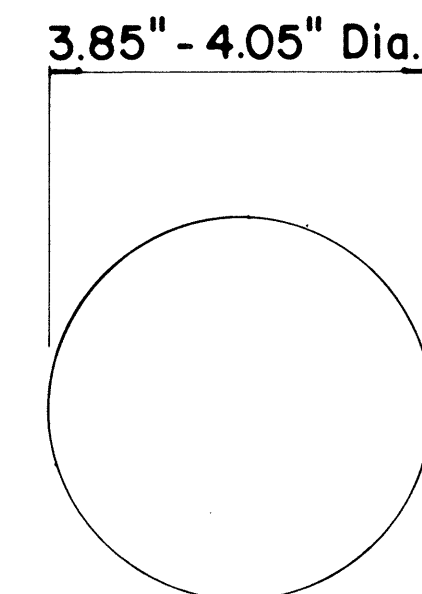
NOTE: Type H (Reflective surface facing oncoming traffic)

TWO - LANE

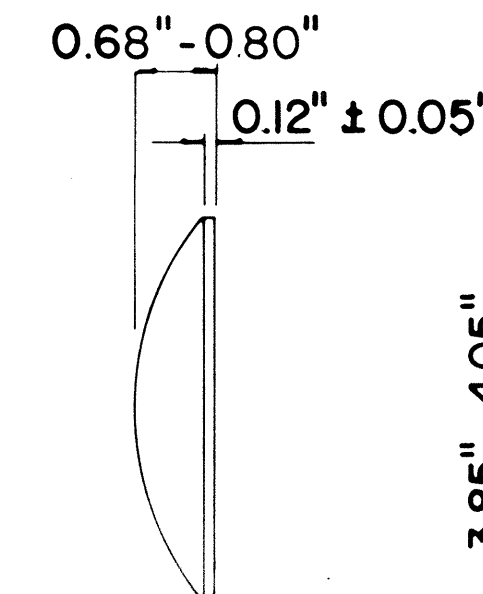
MULTI - LANE

DIVIDED HIGHWAY AND FREEWAY

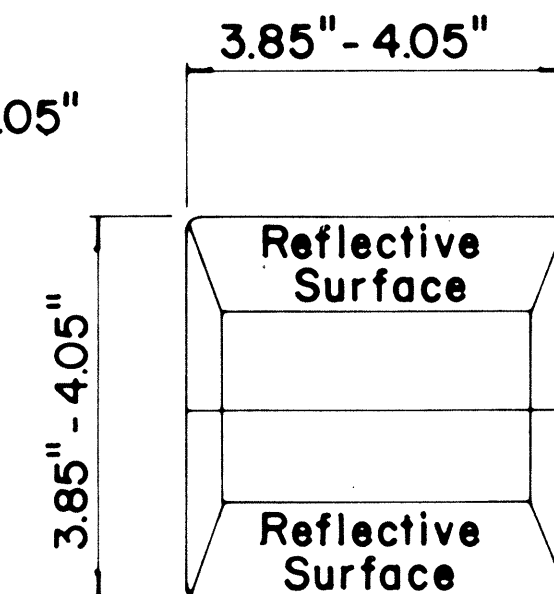
MISCELLANEOUS



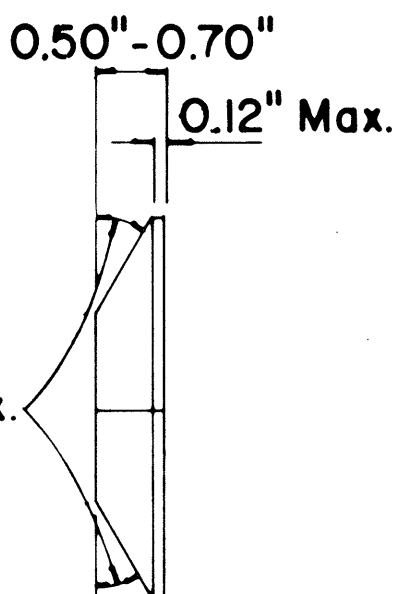
TYPE A  
NON-REFLECTIVE WHITE MARKER



TYPE J  
NON-REFLECTIVE YELLOW MARKER



TYPE C  
RED-CLEAR REFLECTIVE MARKER



TYPE H  
ONE-WAY YELLOW REFLECTIVE MARKER

## GENERAL NOTES

- Pavement marking and striping shall conform to the latest "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- Layout and installation of pavement marking and striping shall be done by the Contractor. The Contractor shall check the layouts with the Engineer prior to performing work.
- Edge lines shall not be continued through intersections and shall not be broken for driveways unless otherwise shown or directed.

## LEGEND

- Type A
- Type C
- Type D
- Type H
- Type J

APPROVAL RECOMMENDED:

*Erich Tanaka*  
TRAFFIC ENGINEER

7/21/78  
DATE

APPROVED:

*Herbert J. DeLoach*  
ASSISTANT CHIEF, ENGINEERING

7/24/78  
DATE

No.	REVISION	APPROVED BY	DATE
1	Supersedes DT 300 approved 11/18/71.	H.C.	7/24/78
2	Delete Type A Markers from Bike Route Delineation.	H.C.	10/15/79
3	Added General Note 3. Revised, left edge stripe.	H.C.	9-28-83

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STANDARD DETAILS**  
**RAISED PAVEMENT MARKERS**  
**AND STRIPING**

Not to Scale July 1978

SHEET No. 7 OF 2 SHEETS DT 300

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-3400(2)	1984	18	12

### GENERAL NOTES:

1. Pavement marking and striping shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," by the FHWA, and as amended.
2. Layout of pavement markings and striping shall be done by the Contractor. The Contractor shall check layout of markings and striping with the Engineer prior to performing work.
3. For additional pavement marking details, see sheet DT 300.

APPROVAL RECOMMENDED:  
*E. I. Tanaka* 5/2/78  
 TRAFFIC ENGINEER DATE

APPROVED:  
*Robert J. Zaleski* 5/3/78  
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

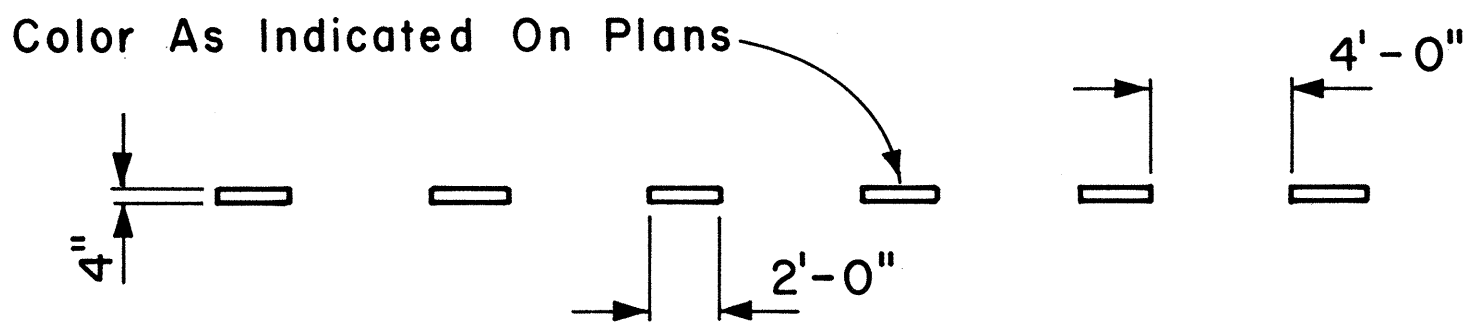
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 LAND TRANSPORTATION FACILITIES DIVISION

### STANDARD DETAILS

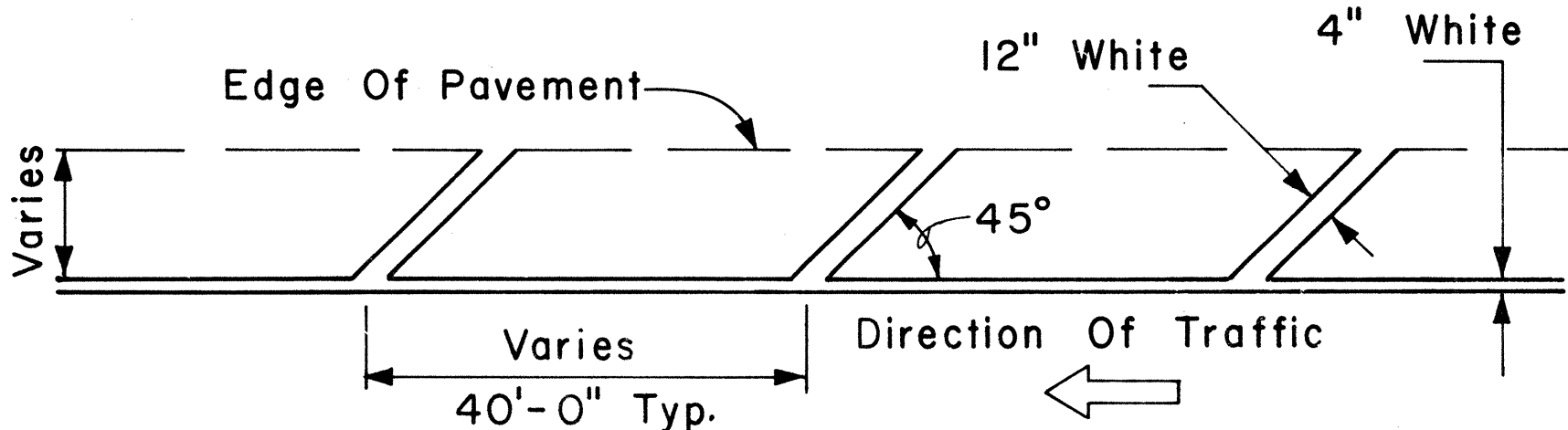
MISCELLANEOUS  
 PAVEMENT MARKINGS

Scale: Not to Scale Date: April, 1978

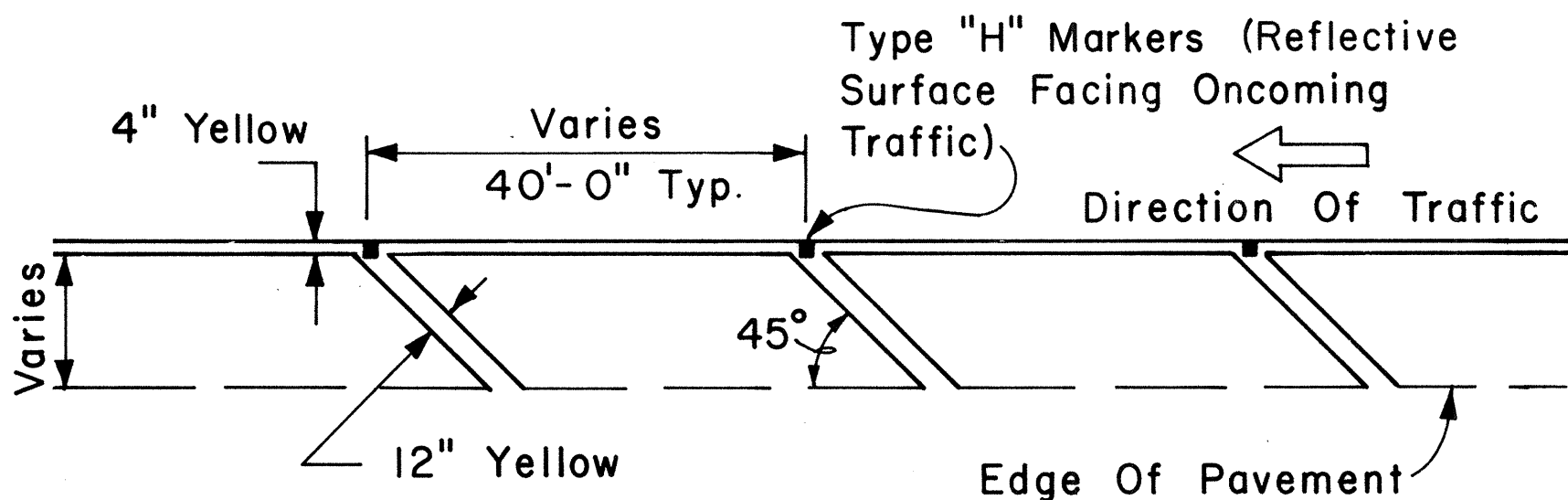
SHEET No. 8 OF 2 SHEETS DT 302



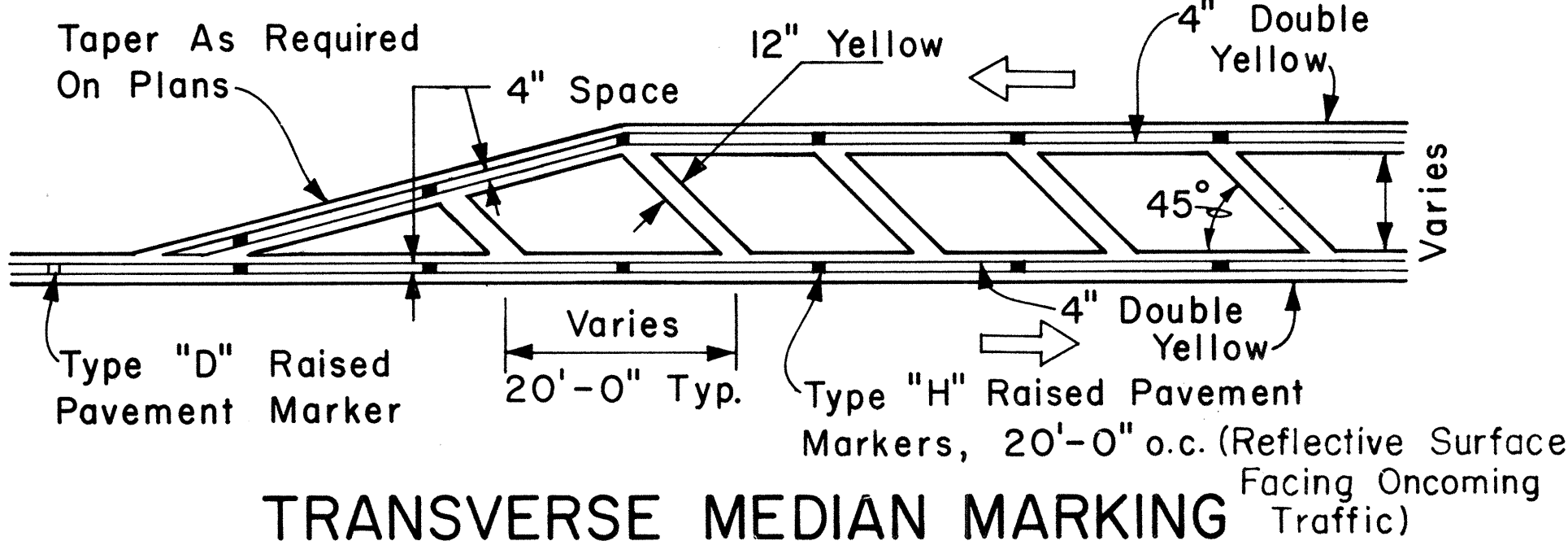
4" GUIDE LINE



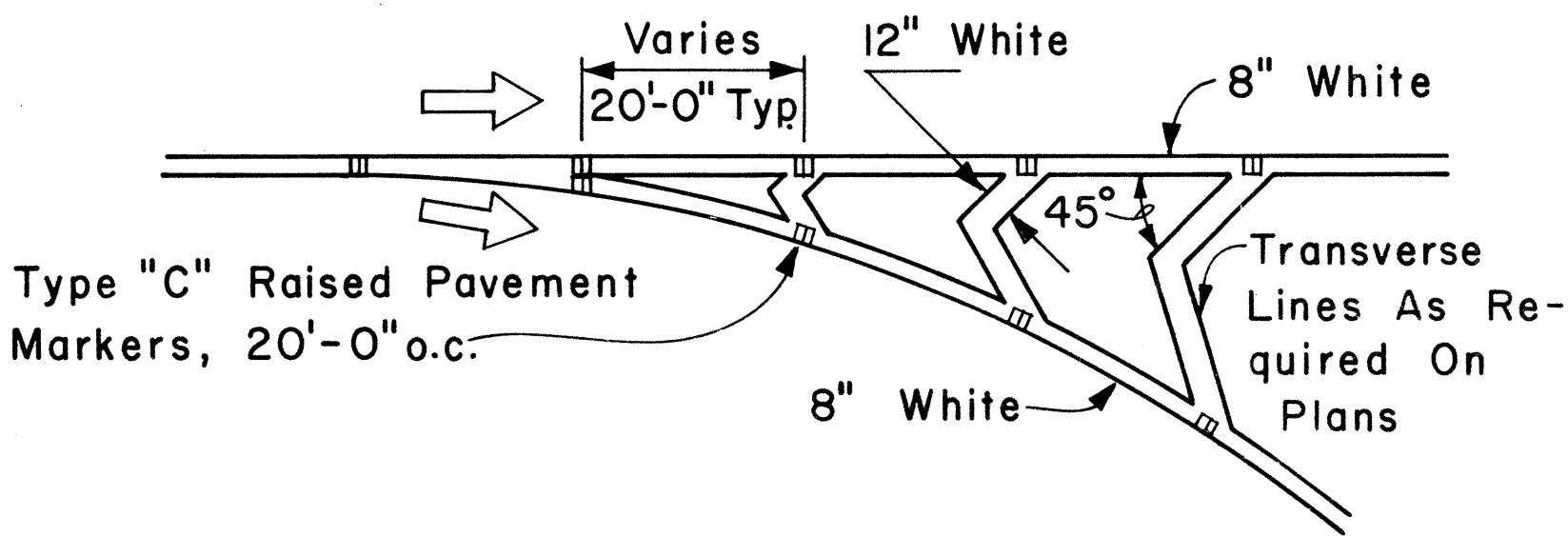
TRANSVERSE RIGHT SHOULDER MARKING



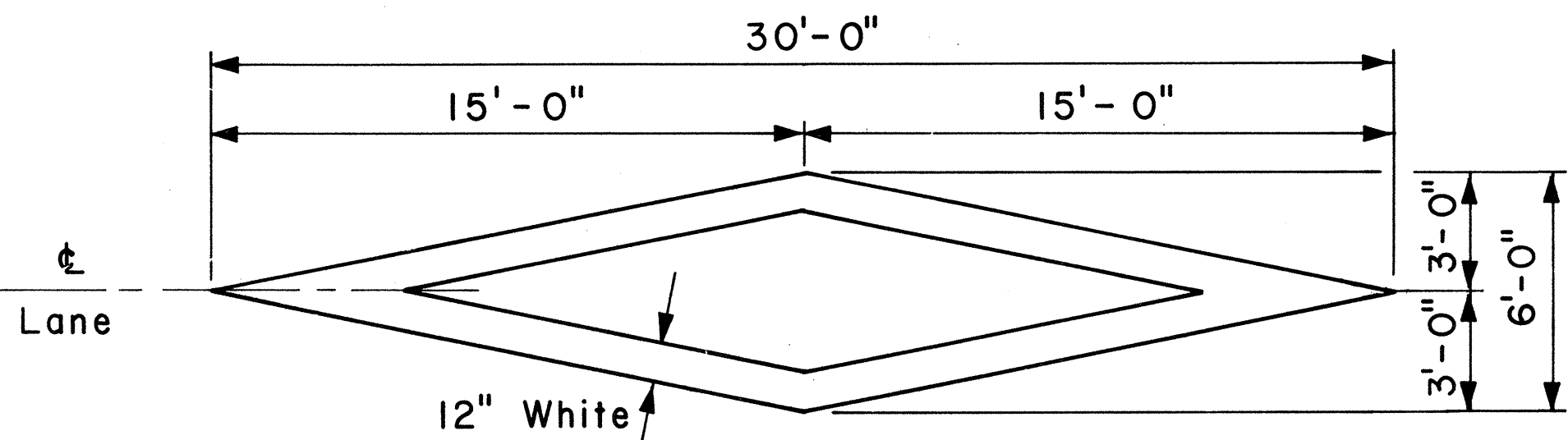
TRANSVERSE LEFT SHOULDER MARKING



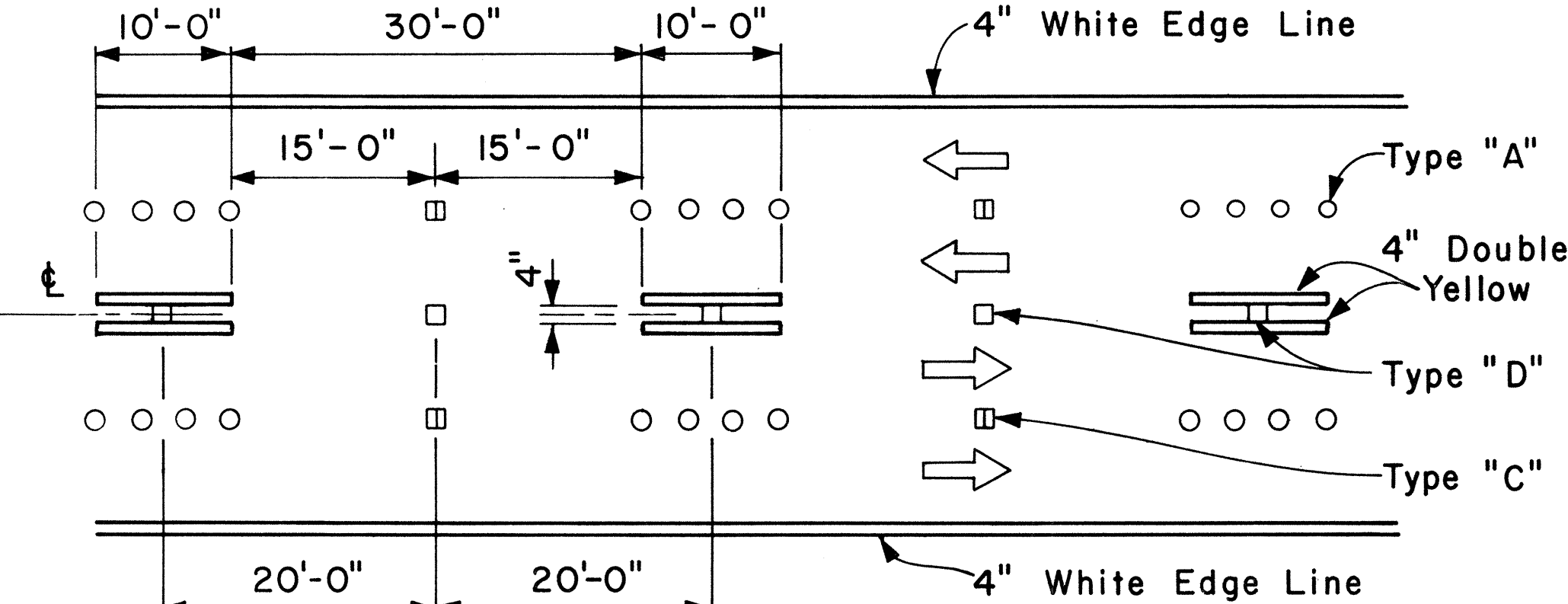
TRANSVERSE MEDIAN MARKING



CHANNELIZING ISLAND

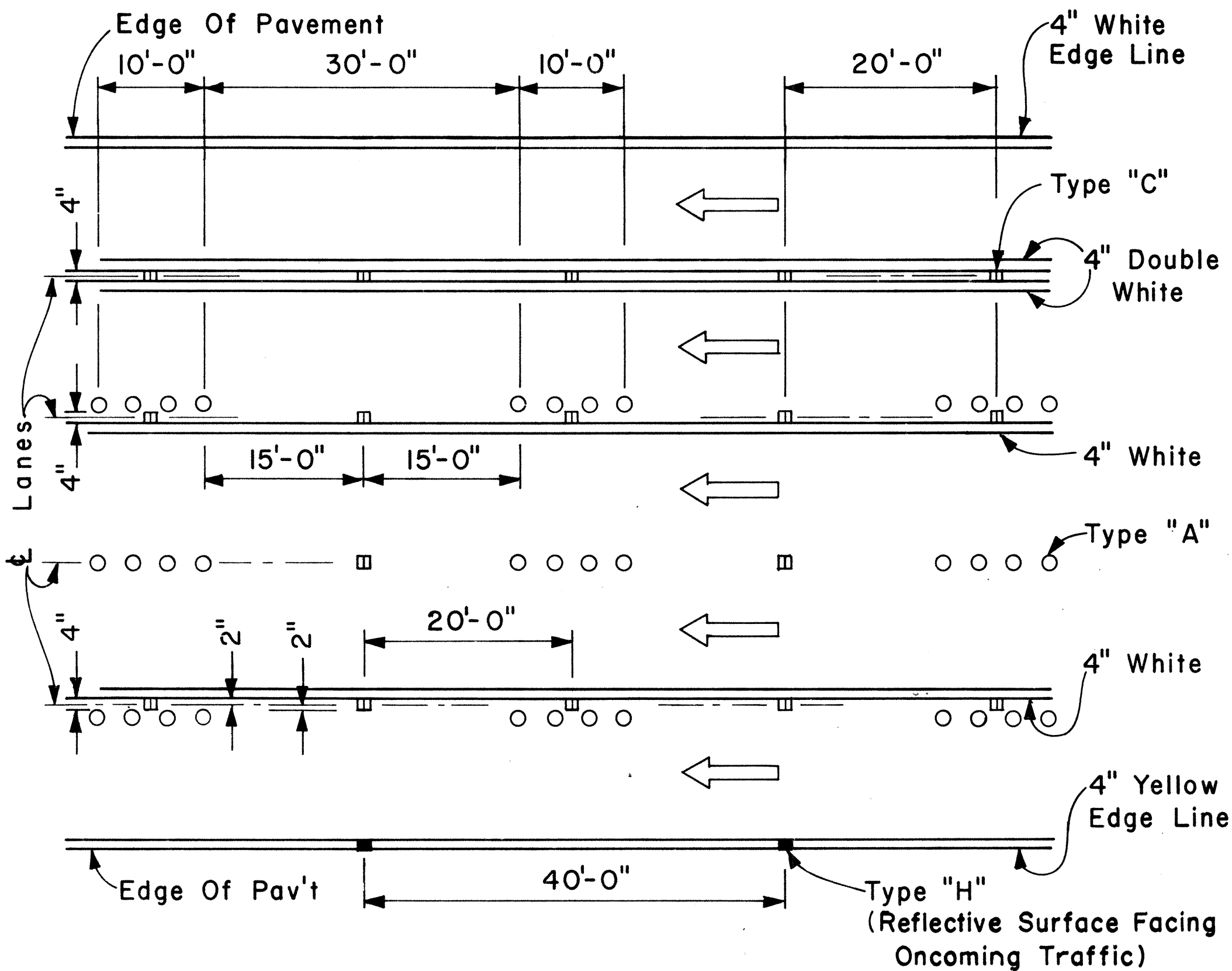


PAVEMENT DIAMOND



NOTE: Traffic Cone Usage Required.

MULTI-LANE  
REVERSIBLE LANES



MULTI-LANE  
LANE CHANGE RESTRICTION ZONES

ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	



