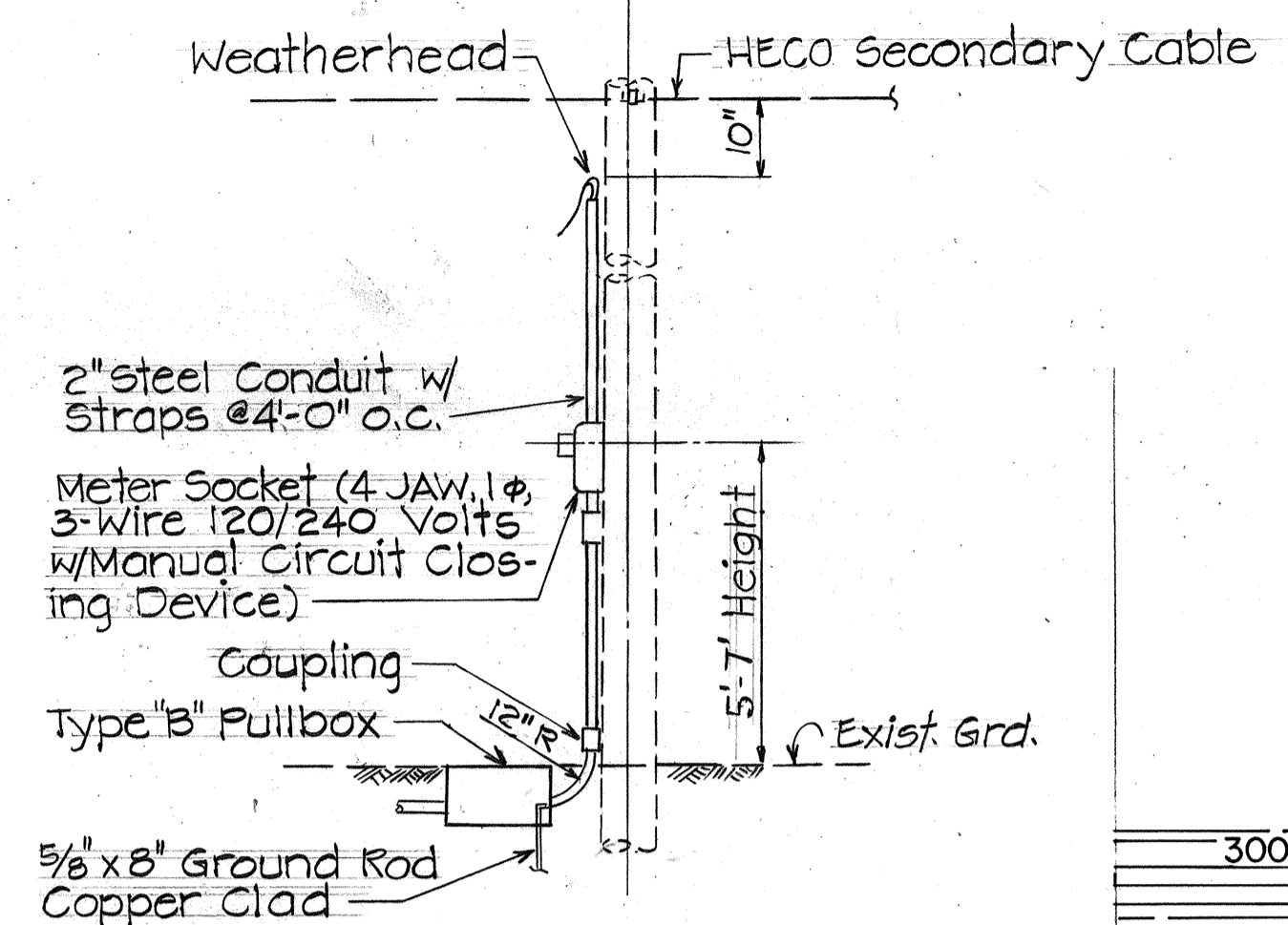
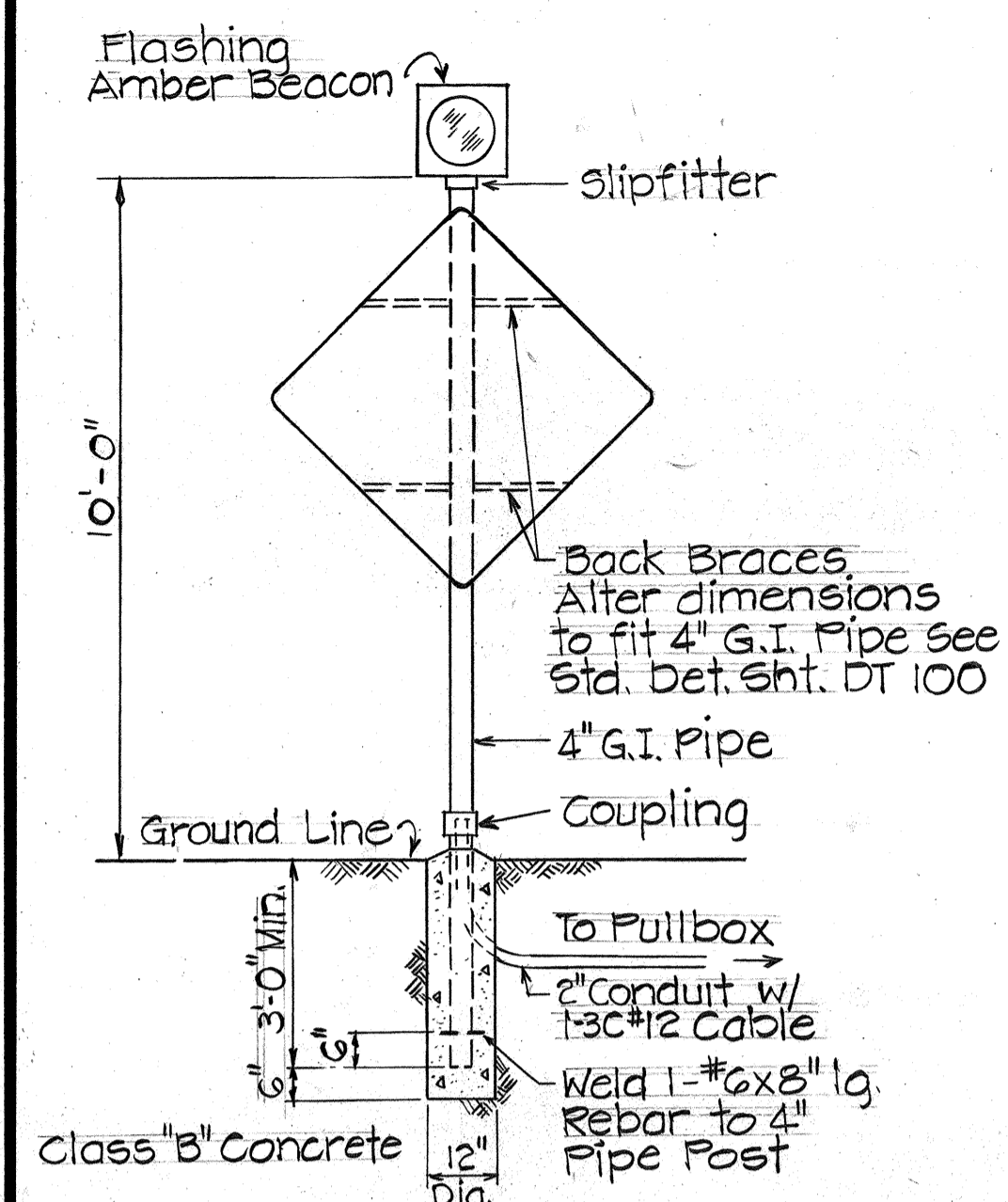
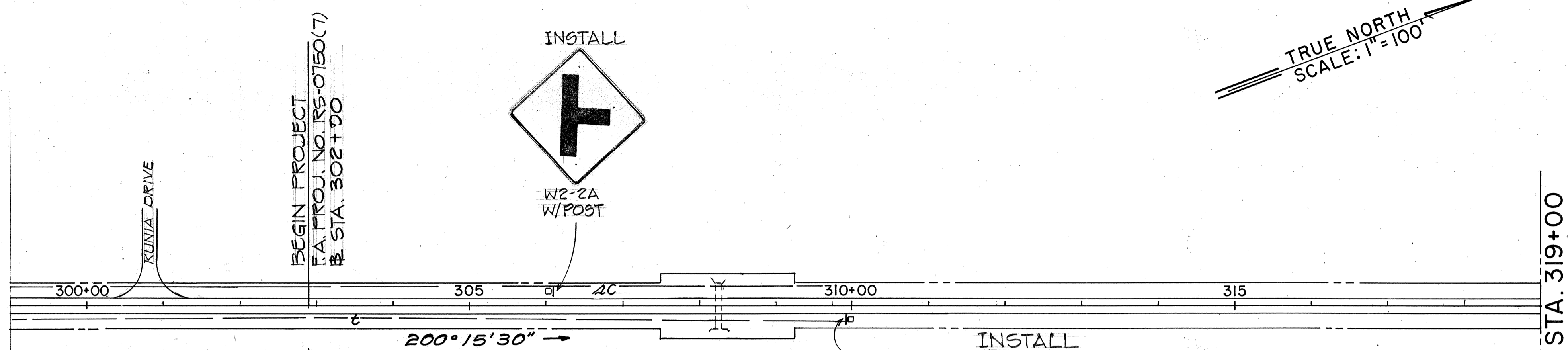


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-0750 (7)	1984	16	32

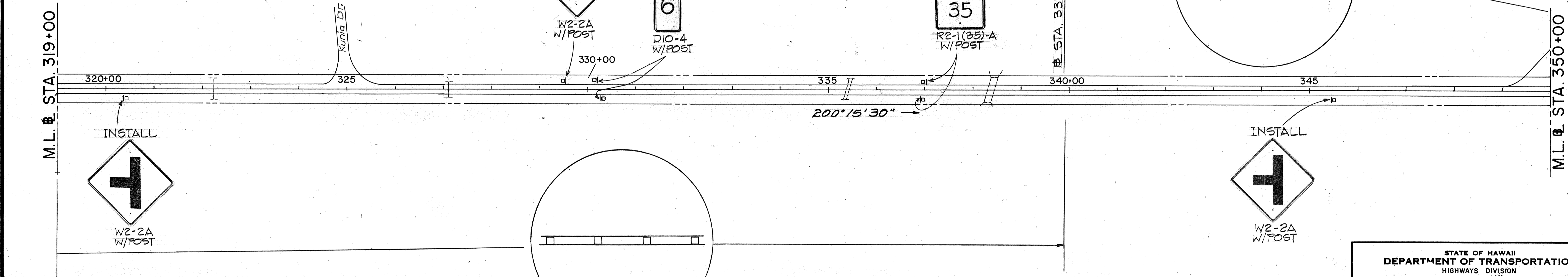


FLASHING AMBER BEACON W/W2 SIGN  
Not to scale

SERVICE POLE DETAIL  
Not to scale



TRUE NORTH  
SCALE: 1" = 100'



TRUE NORTH  
SCALE: 1" = 100'

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

SIGNING AND PAVEMENT MARKINGS

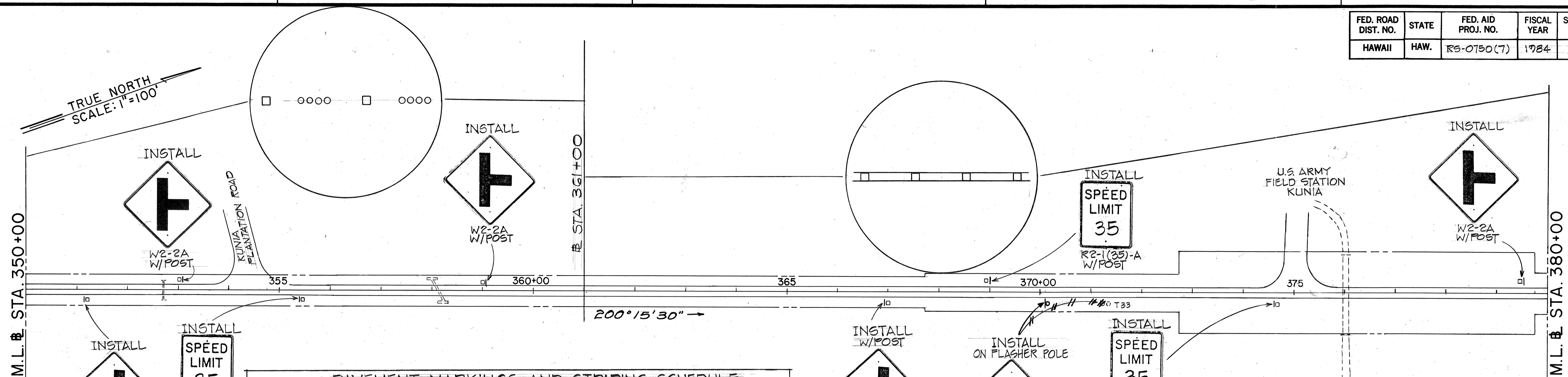
KUNIA ROAD RESURFACING  
VICINITY OF KUNIA DR. TO URBAN BOUNDARY

F.A. PROJ. NO. RS-0750(7)

Scale: As Shown Date: March, 1984

SHEET NO. 1 OF 17 SHEETS

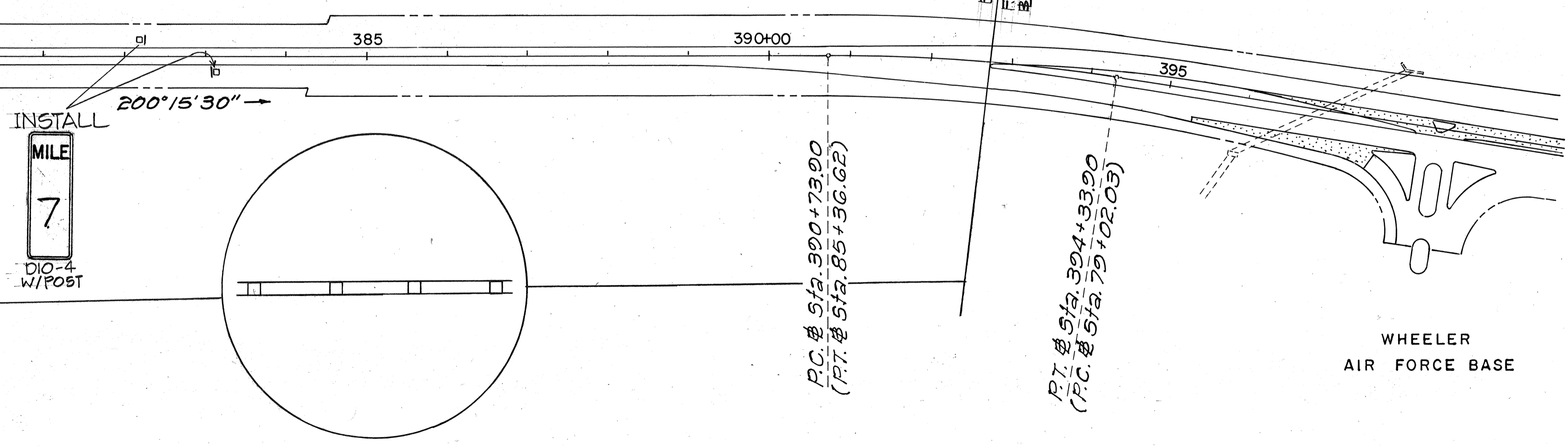
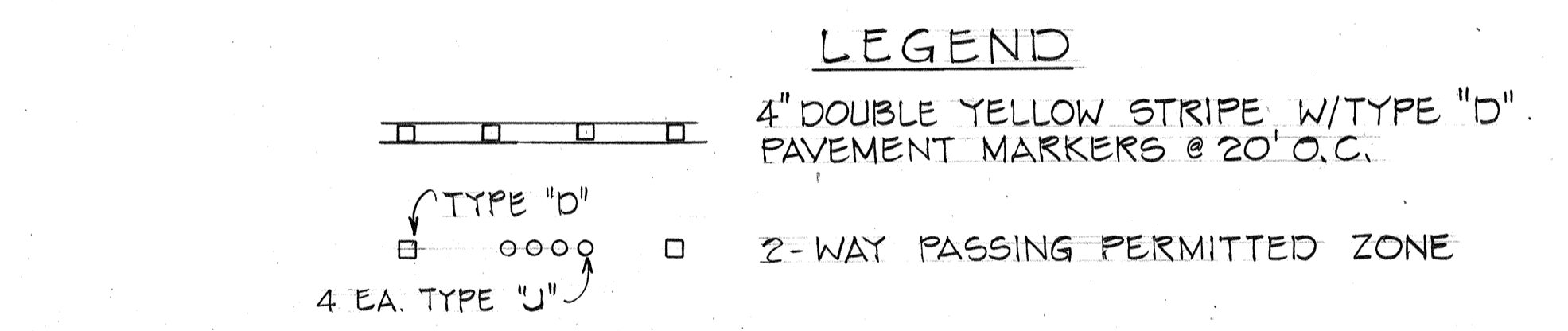
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-0750(7)	1984	17	32



**PAVEMENT MARKINGS AND STRIPING SCHEDULE**  
# STA. 302+90 ± TO # STA. 392+75 ±

APPROXIMATE # STATION TO STATION	4" SOLID DOUBLE YELLOW STRIPE & (L.F.)	TWO WAY PASSING PERMITTED ZONE	WHITE EDGE STRIPE (L.F.)	TYPE "D" TYPE "J"	
				TYPE "D"	TYPE "J"
302+90 - 339+90	3,700		7,400	185	
339+90 - 361+00		2,110	4,220	53	212
361+00 - 392+75	3,175		6,350	80	
TOTALS	6,875	2,110	17,970	318	212

- GENERAL NOTES**
- THE CONTRACTOR SHALL REMOVE ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS AS DIRECTED BY THE ENGINEER. COSTS SHALL BE INCIDENTAL TO INSTALLATION OF REGULATORY & WARNING SIGNS.
  - LOCATIONS OF ALL NEW PAVEMENT MARKERS AND STRIPINGS SHALL BE STAKED OUT BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.
  - EXISTING PAVEMENT MARKINGS NOT INCORPORATED IN THE FINAL TRAFFIC PATTERN SHALL BE REMOVED AS DIRECTED BY THE ENGINEER. COSTS SHALL BE INCIDENTAL TO THE VARIOUS CONTRACT ITEMS.
  - PAVEMENT MARKERS AND STRIPING SHALL CONFORM TO THE LATEST "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND AS AMENDED.
  - FOR ADDITIONAL PAVEMENT MARKING DETAILS, REFER TO STANDARD DETAIL DT-300.
  - PAVEMENT MARKING TAPE SHALL BE USED FOR ALL PAVEMENT STRIPING.
  - RM-1 REFLECTOR MARKERS SHALL BE INSTALLED AT 200' O.C. ON BOTH SIDES WITH FLEXIBLE DELINEATOR POSTS EXCEPT THOSE BEHIND GUARDRAILS SHALL BE MOUNTED ON METAL POSTS.
  - OBJECT MARKERS SHALL BE INSTALLED ON UTILITY POLES (GO).
  - INTERSECTION STRIPING-INSTALL EDGE STRIPE TO STATE RIGHT OF WAY LINE. INSTALL 4" DOUBLE YELLOW STRIPE W/TYPE "D" PAVT. MARKERS TO STATE RIGHT OF WAY LINE FOR CENTER LINE STRIPING OF SIDE ROAD.
  - PAVEMENT ARROWS SHALL BE INSTALLED AT U.S. ARMY FIELD STATION ENTRANCE. COSTS SHALL BE INCIDENTAL TO PAVEMENT STRIPING.



**CURVE DATA**  
 R = 2291.83'  
 D = 2°30'  
 Δ = 9°00'  
 R = 2291.83'  
 T = 180.37'  
 L = 360.00'

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NOTED BY	
NO.	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SIGNING AND PAVEMENT MARKINGS**

KUNIA ROAD RESURFACING  
VICINITY OF KUNIA DR. TO URBAN BOUNDARY

F.A. PROJ. No. RS-0750(7)

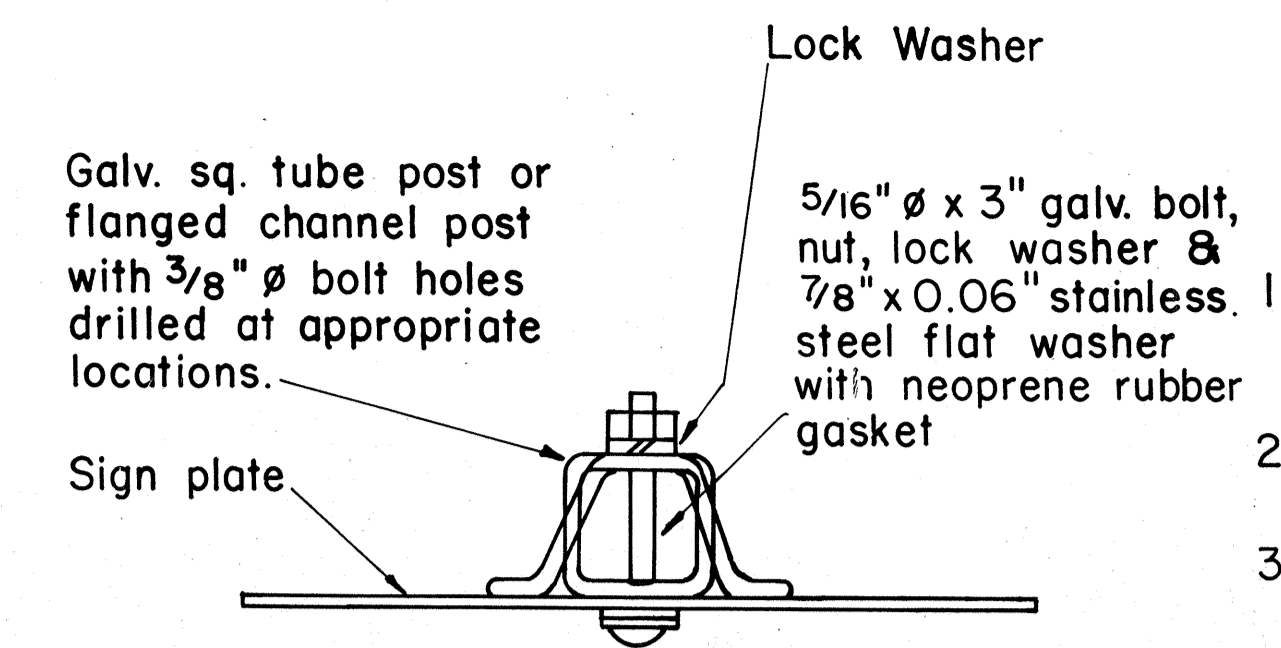
Scale: As Shown Date: March, 1984

SHEET No. 2 OF 17 SHEETS

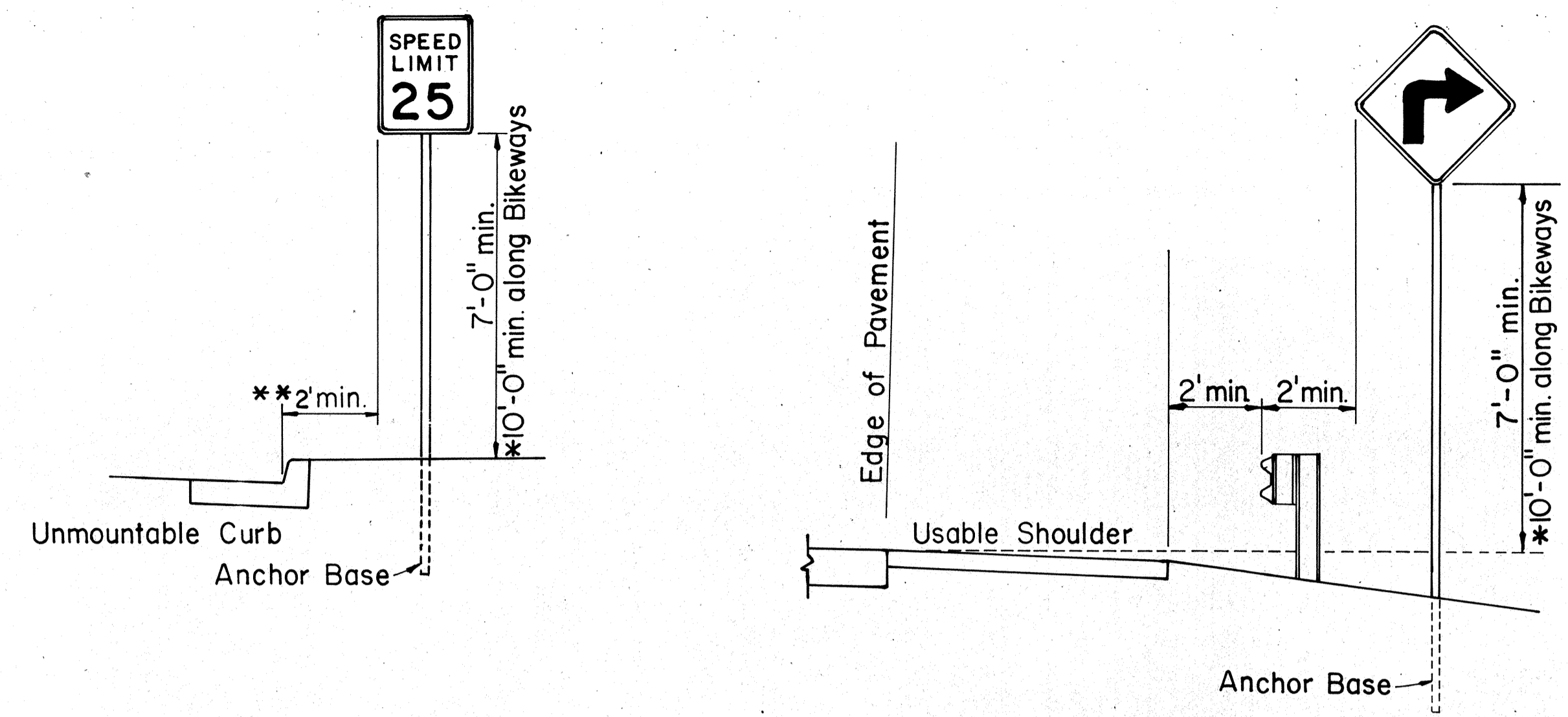
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-0750 (7)	1984	18	32

**GENERAL NOTES**

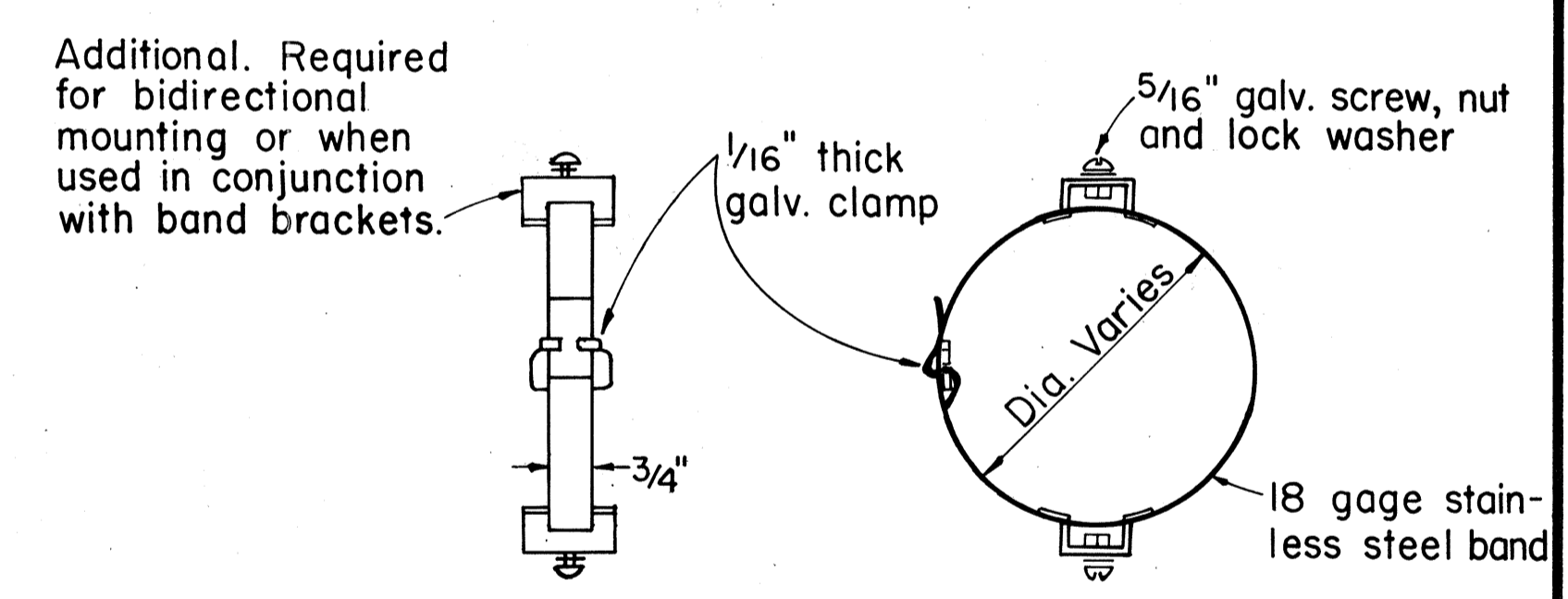
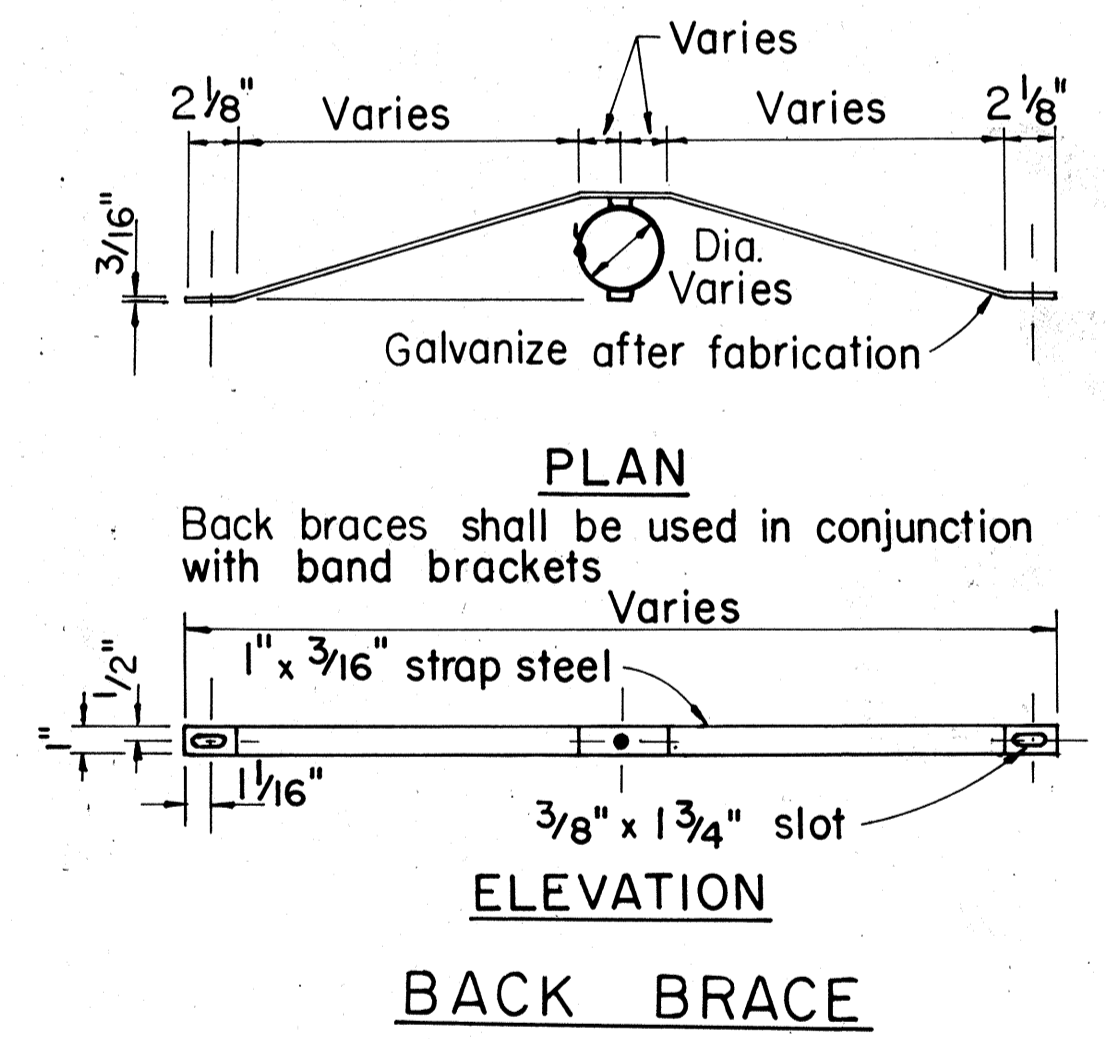
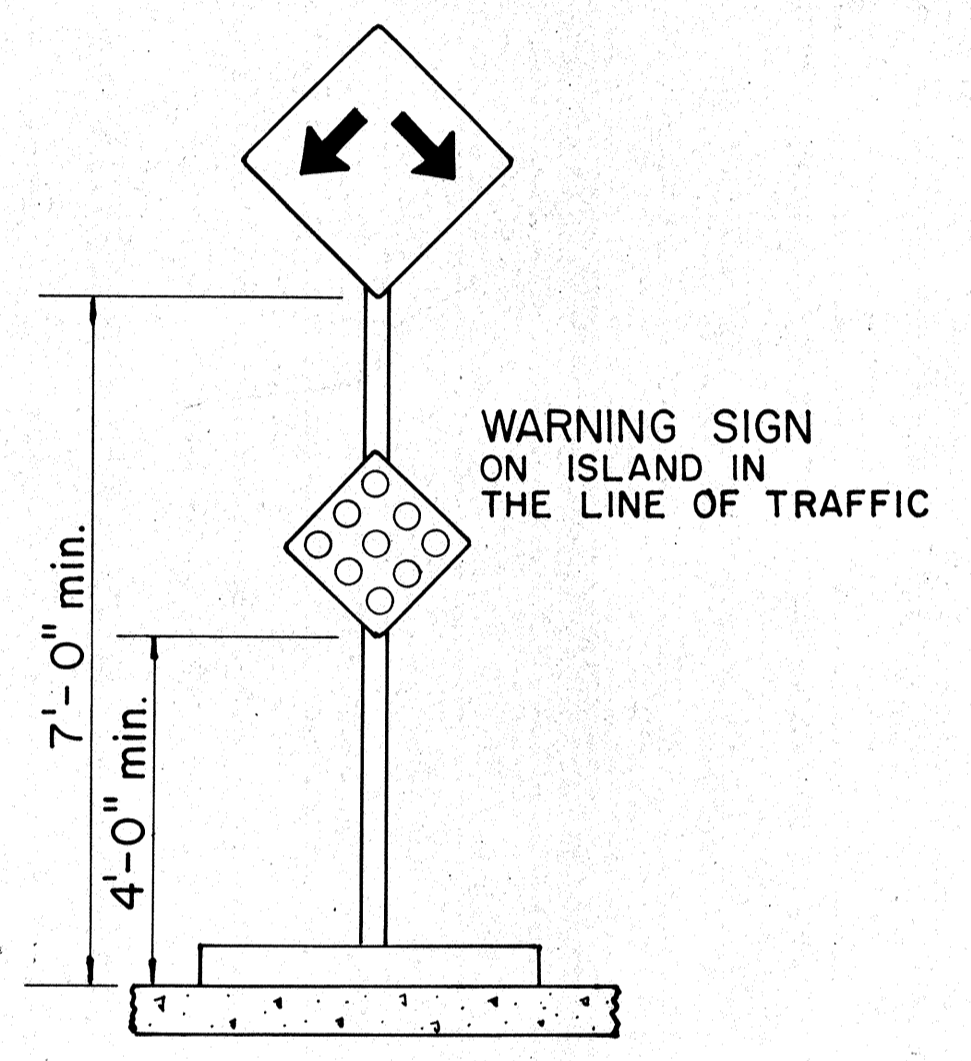
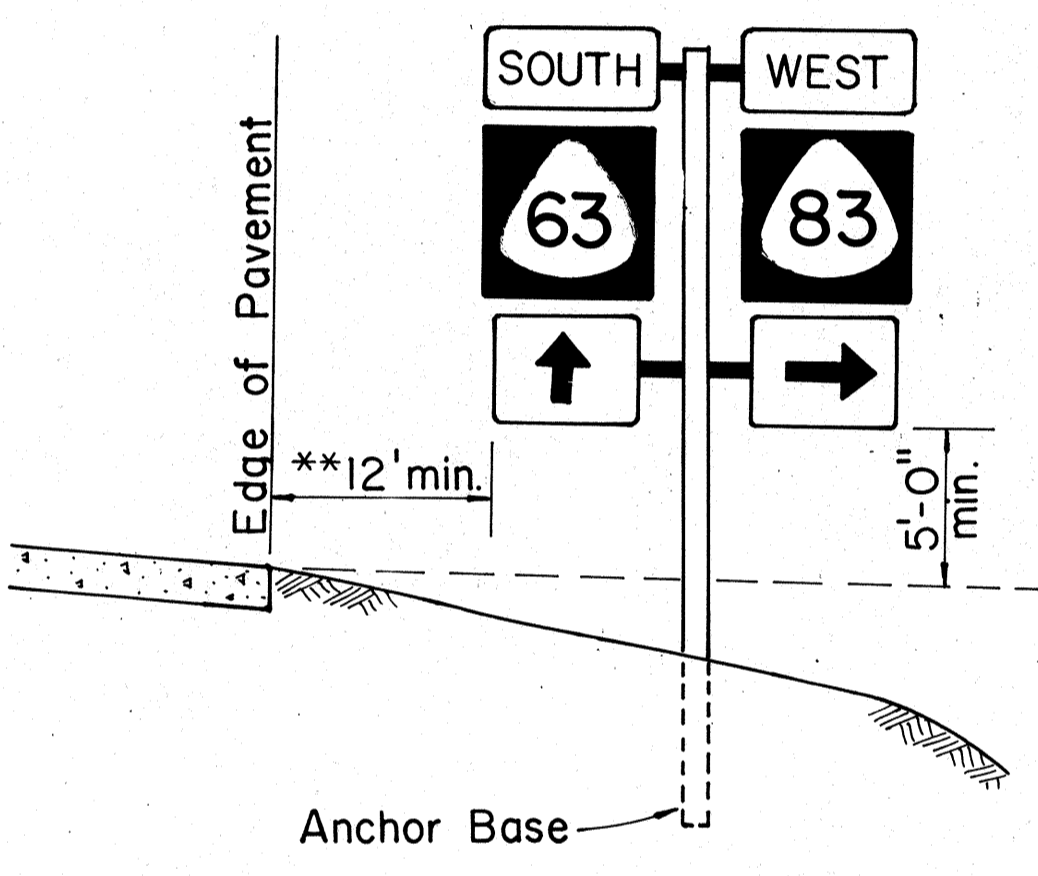
- Signs shall be placed in conformance with positions shown and described in the "Manual on Uniform Traffic Control Devices for Streets and Highways", 1978, Part II, Section 2A-21, as amended, and as supplemented herein.
- Sign 48" and wider or larger than 10 sq. ft. in area shall be mounted on two or 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 3/2" 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.
- \* 7. See plans for special details of signs along bikeways.
- \*\* 8. 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.



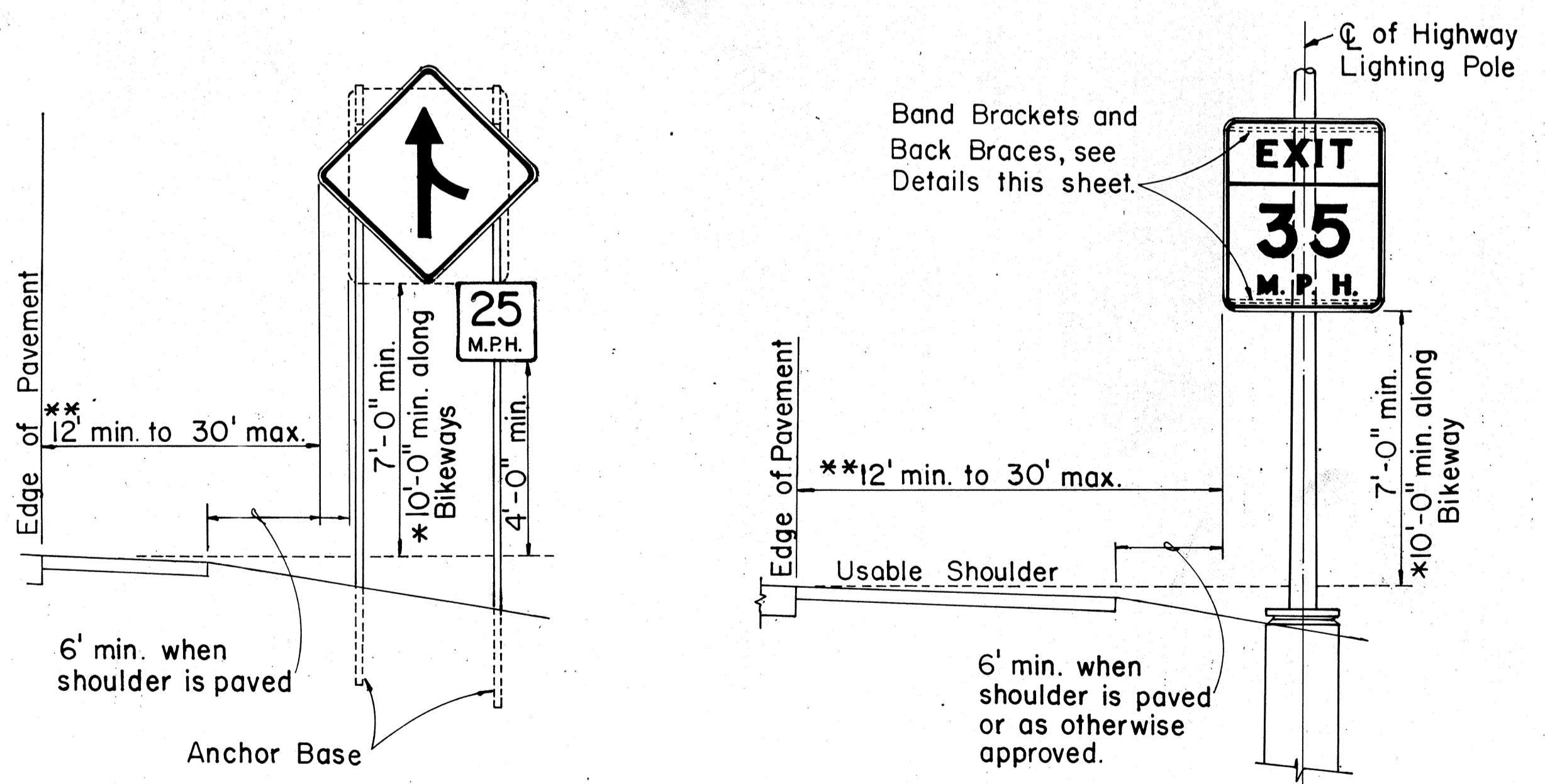
**GALVANIZED SQUARE TUBE OR FLANGED CHANNEL POST**



**ROADSIDE ASSEMBLY RURAL DISTRICT**



**BAND BRACKET**



**HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATION**

**TYPICAL MOUNTING DETAILS**

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

APPROVED BY:  
*H. Fujiyama* 10-18-83  
 ASSISTANT CHIEF, ENGINEERING DATE

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

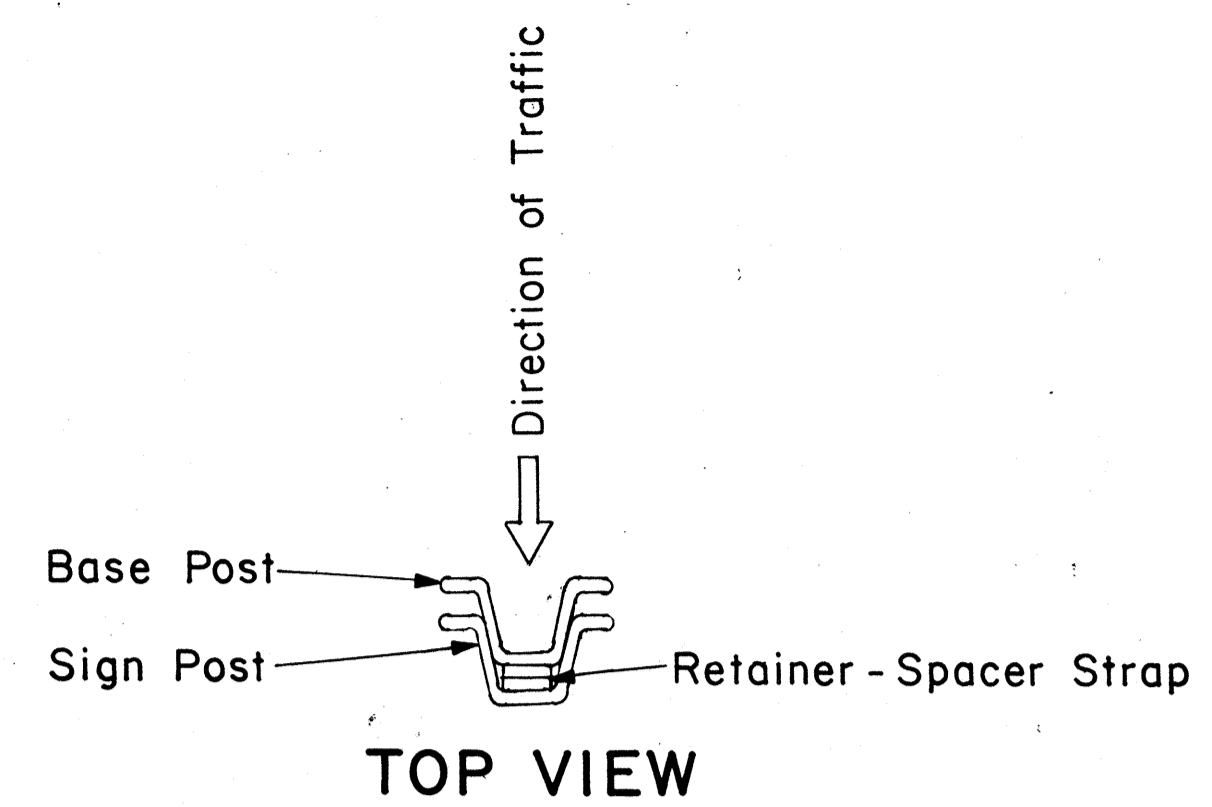
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**STANDARD DETAILS**  
**MISCELLANEOUS SIGN DETAILS**

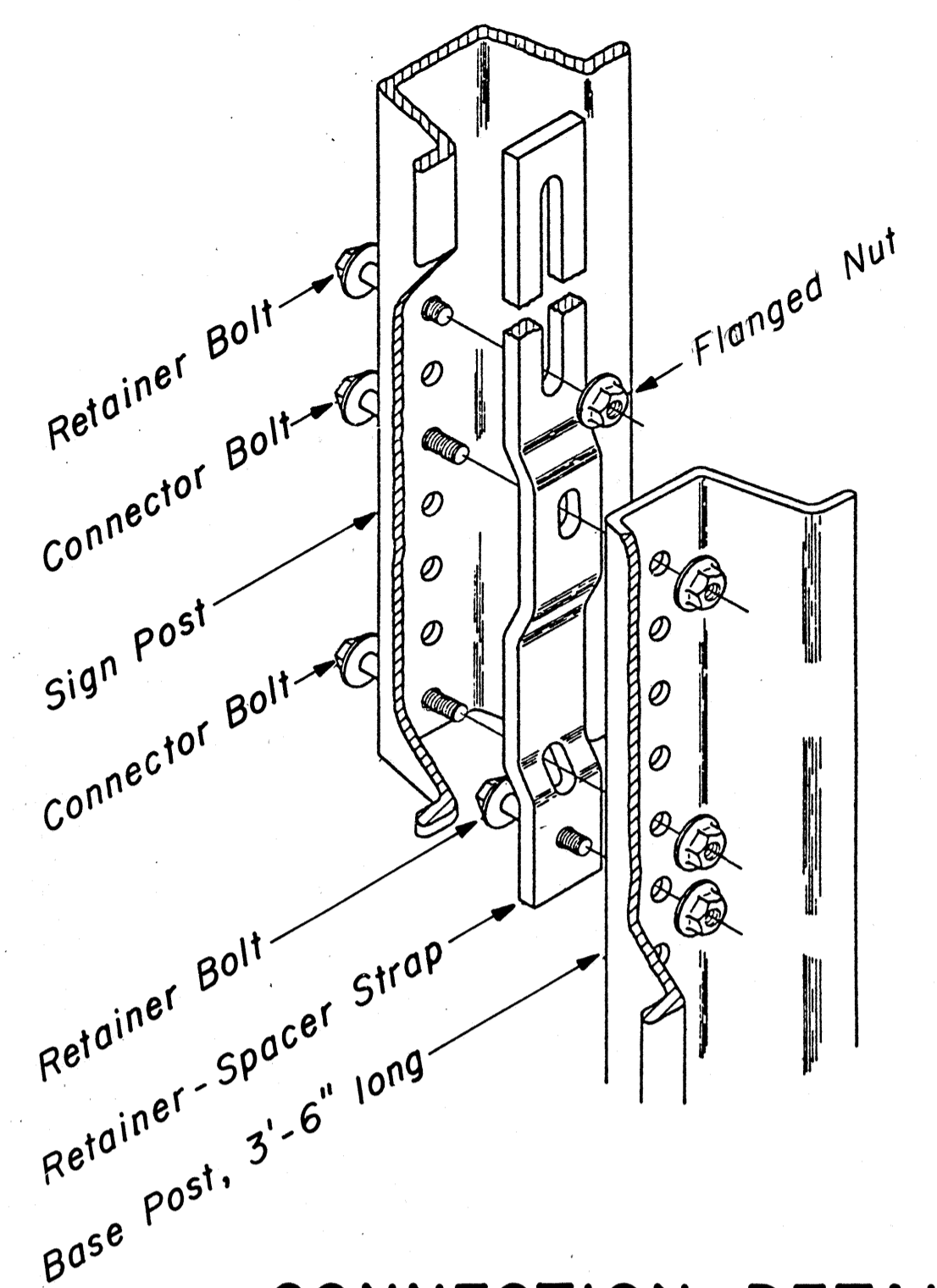
Not to Scale: Oct. 1983  
 SHEET No. 3 OF 17 SHEETS DT 100

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-0750(7)	1984	10	32

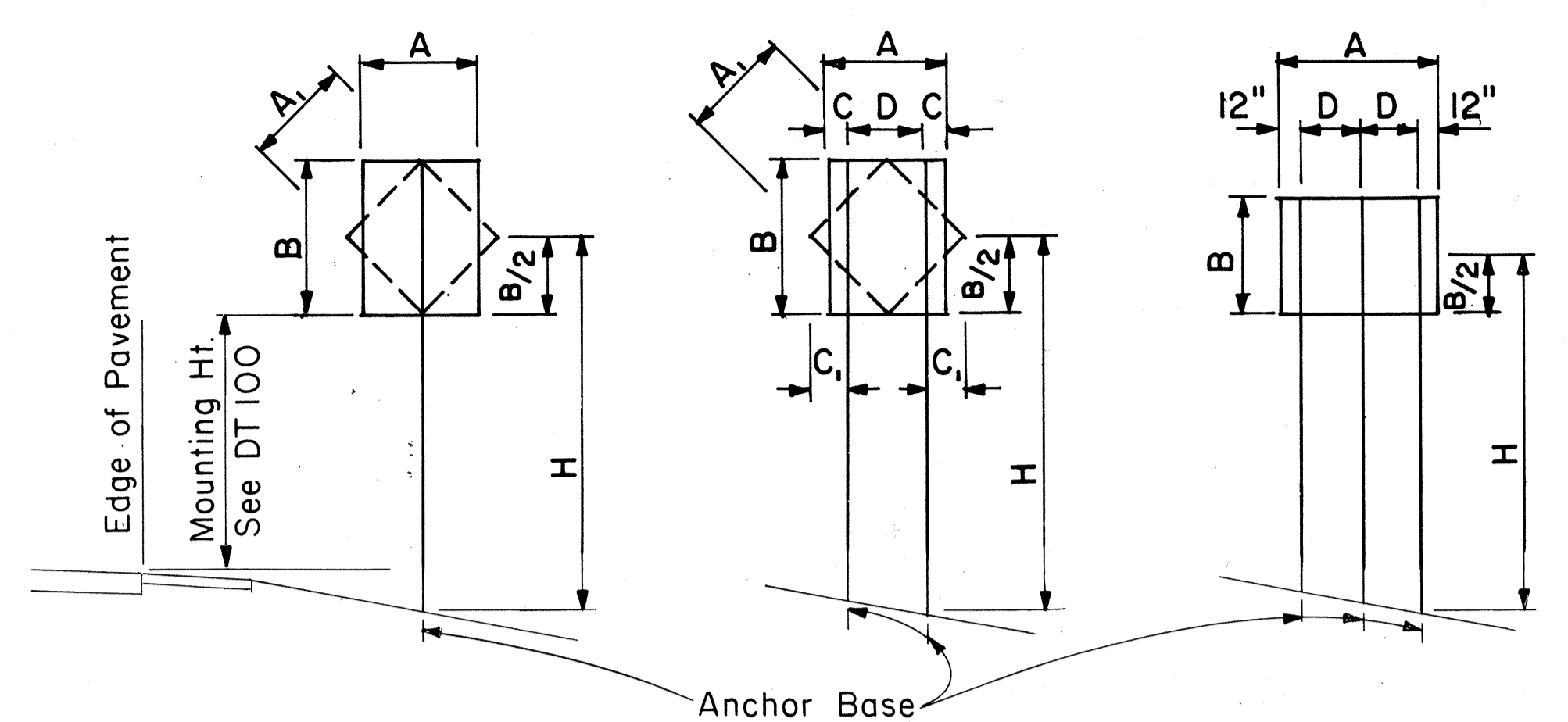


**TOP VIEW**



**CONNECTION DETAIL**

Not to Scale



**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

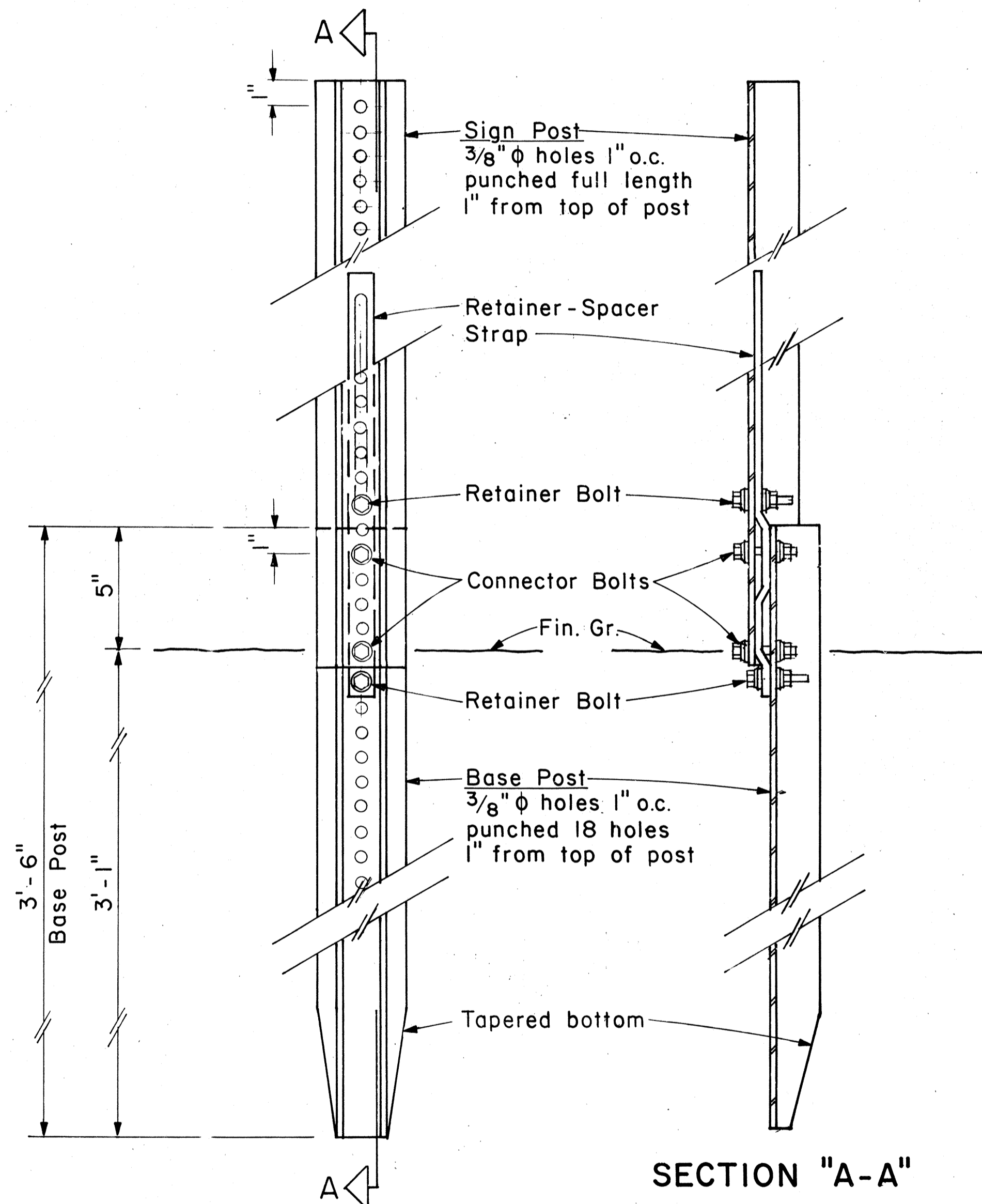
FLANGED CHANNEL: 1-POST INSTALLATION							
Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)					
		7	8	9	10	11	12
2.50 lbs./ft.	57	8.14	7.13	6.33	5.70	5.18	4.75
4.00 lbs./ft.	112	-	-	-	-	-	9.33

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

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

**WINDLOAD CHARTS**

NO.	REVISION	APPROVED BY	DATE

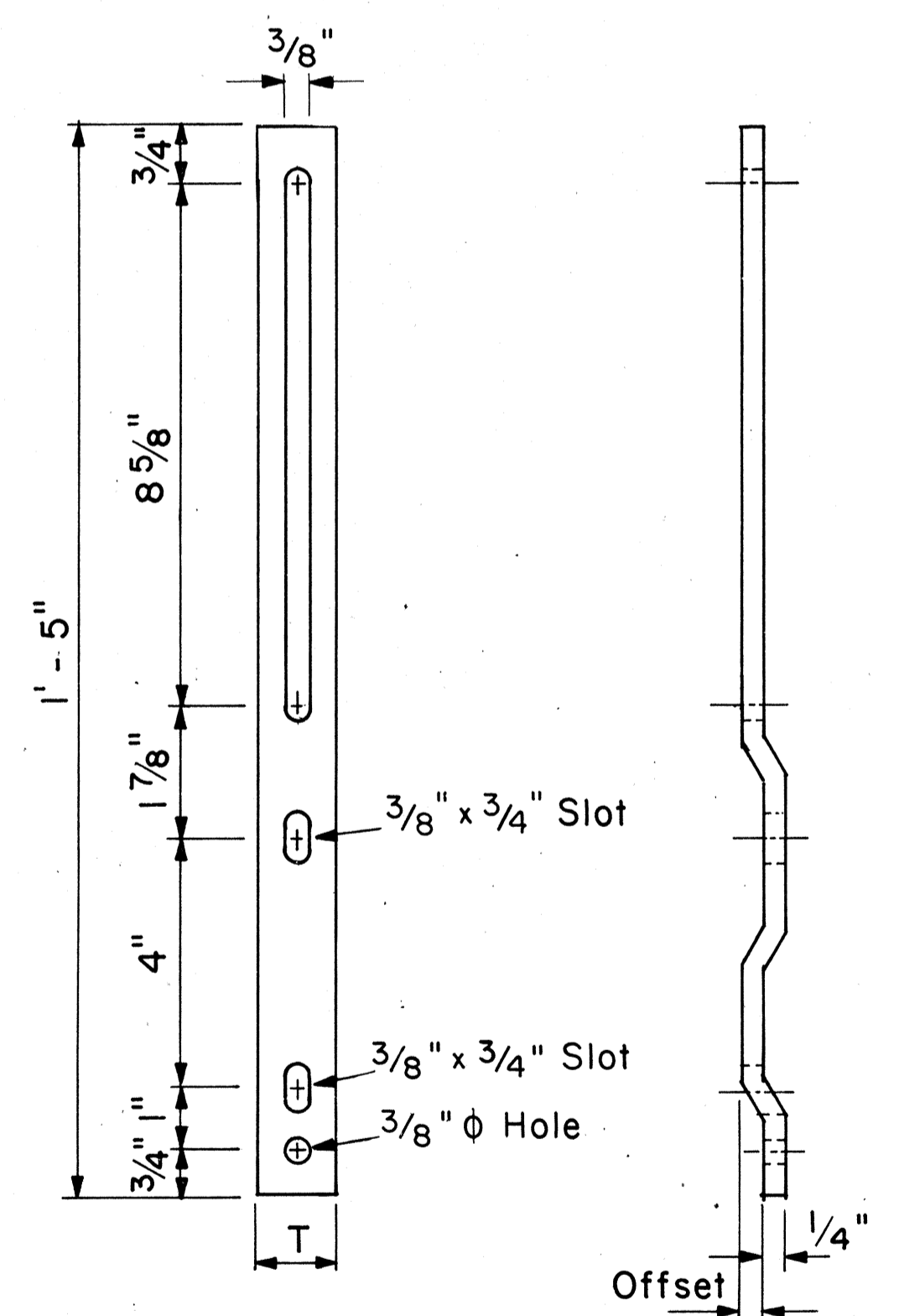


**BACK VIEW**

**SECTION "A-A"**

**ANCHOR BASE DETAIL**

Scale: 3" = 1'-0"



**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"

A or A,	C	C,
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 x B x H  
 Therefore, if sign area (A x B) is known,  
 Maximum H =  $\frac{\text{Factor}}{\text{sign area}(A \times B)}$   
 and if H is known,  
 Maximum sign area (A x B) =  $\frac{\text{Factor}}{H}$

APPROVAL RECOMMENDED:

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

APPROVED:

ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

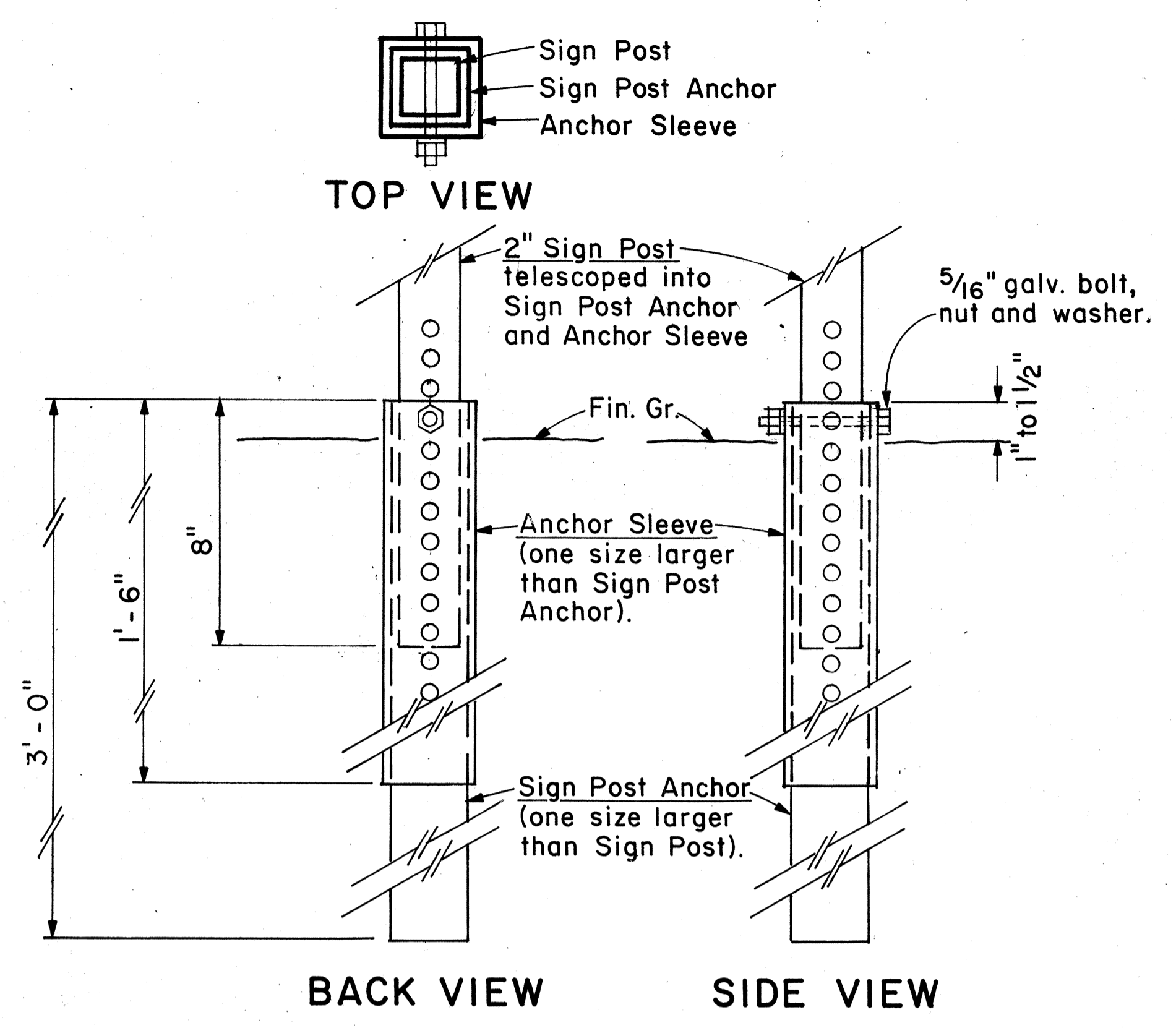
**STANDARD DETAILS**  
**GALVANIZED FLANGED CHANNEL**  
**SIGN POST MOUNTING**

Scale: As Shown Date: Sept. 1982  
 SHEET NO. 4 OF 17 SHEETS DT100A

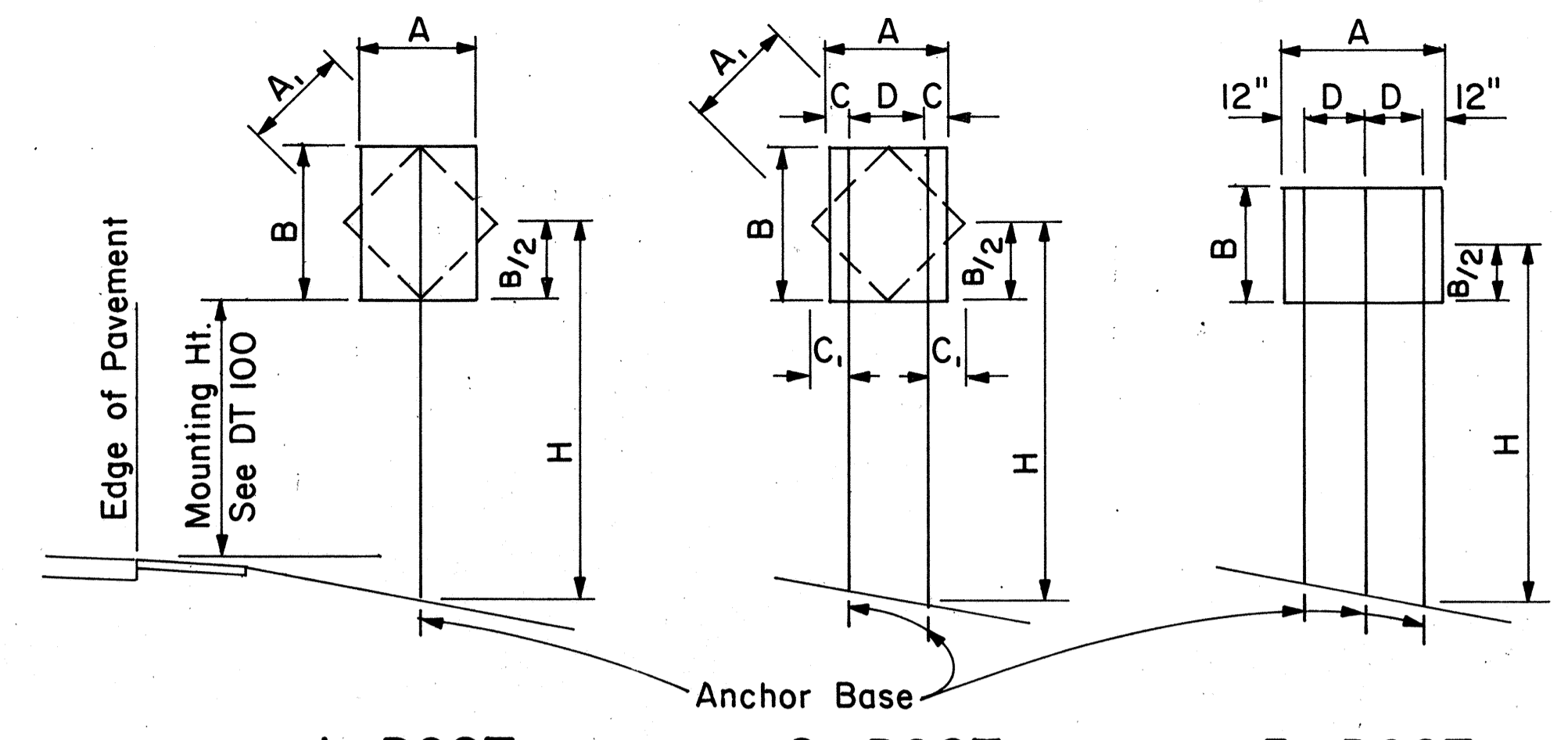
DATE: \_\_\_\_\_  
 SURVEY PLOTTED BY: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 DESIGNED BY: \_\_\_\_\_  
 QUANTITIES BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 No. \_\_\_\_\_

### GENERAL NOTES

- Square tube sign posts shall conform to Subsection 713.11(C) Square Tube Posts of the Specifications.
- All accessories, fittings and stiffener details (as required) shall be submitted to Engineer for approval 20 days prior to installation.
- Square tube posts shall be perforated with  $\frac{7}{16}$ "  $\phi$  holes, 1" o.c., 4 sides, along entire length of post.
- All posts shall be 12 gage unless otherwise specified or shown on the plans.
- 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  $H = \frac{Factor}{sign\ area(A \times B)}$   
and if H is known,  
Maximum sign area (A x B) =  $\frac{Factor}{H}$



**2" SIGN POST INSTALLATION**



**TYPICAL INSTALLATION**  
Not to Scale

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"

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 2.

**SQUARE TUBE: 1- POST INSTALLATION**

Post Size	AxBxH (Factor)	H = Ground Level to Midpoint (ft.)						AxB (Area, sq. ft.)
		7	8	9	10	11	12	
2"	62	8.8	7.7	6.8	6.1	5.6	4.8	AxB (Area, sq. ft.)
2 1/2"	107	-	-	-	-	9.6	8.8	

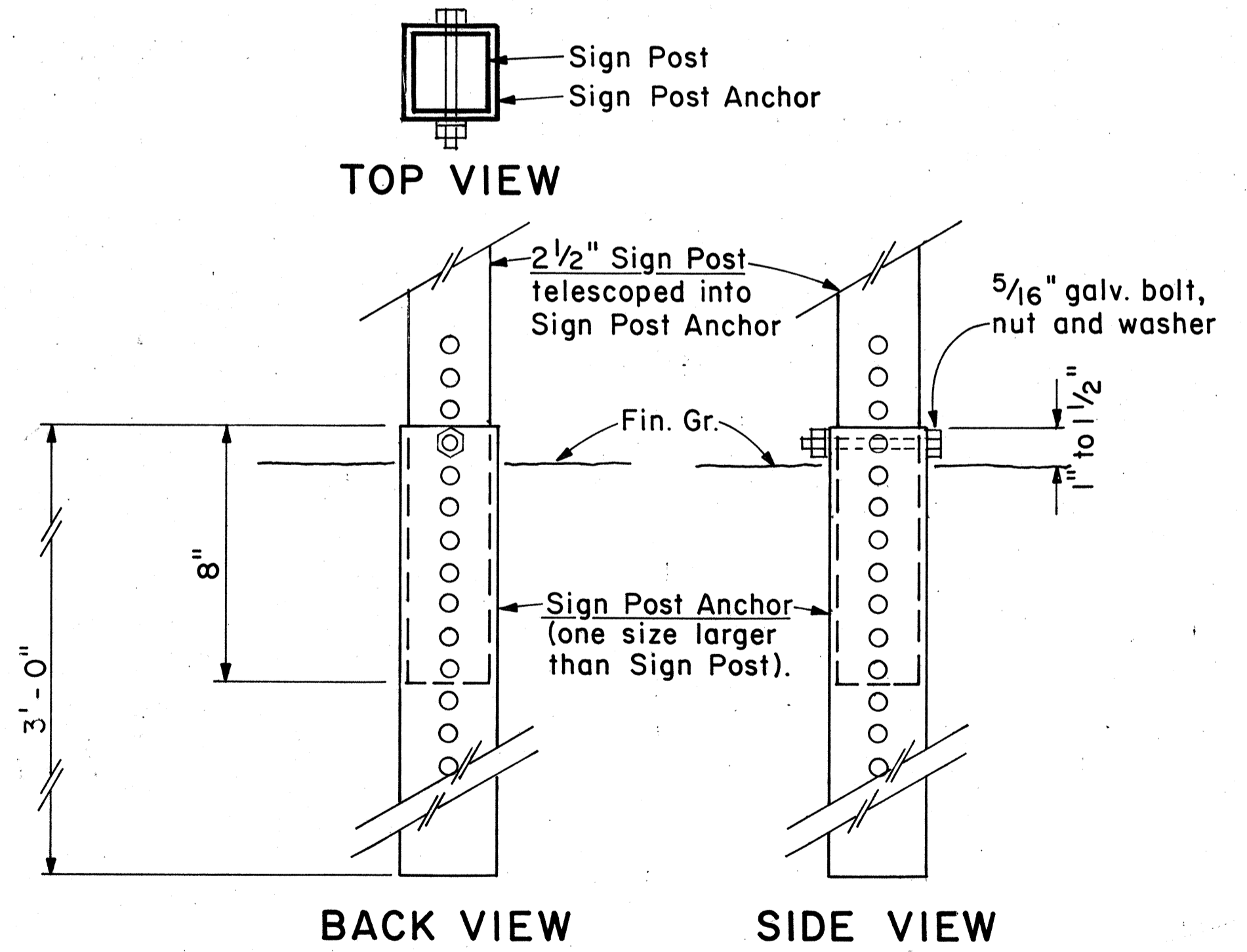
**SQUARE TUBE: 2- POST INSTALLATION**

Post Size	AxBxH (Factor)	H = Ground Level to Midpoint (ft.)						AxB (Area, sq. ft.)
		7	8	9	10	11	12	
2"	122	17.4	15.2	13.5	12.2	11.0	10.1	AxB (Area, sq. ft.)
2 1/2"	212	30.2	26.5	23.5	21.1	19.2	17.6	
2 1/2", 10 ga.	260	37.0	32.0	28.6	26.0	23.5	21.5	

**SQUARE TUBE: 3- POST INSTALLATION**

Post Size	AxBxH (Factor)	H = Ground Level to Midpoint (ft.)						AxB (Area, sq. ft.)
		7	8	9	10	11	12	
2"	183	26.0	22.8	20.3	18.2	16.6	15.2	AxB (Area, sq. ft.)
2 1/2"	318	45.4	39.5	35.2	31.5	28.8	26.5	
2 1/2", 10 ga.	388	55.0	48.5	43.0	38.5	35.0	32.0	

### WINDLOAD CHARTS



**2 1/2" SIGN POST INSTALLATION**

### ANCHOR BASE DETAIL

Scale: 3" = 1'-0"

APPROVAL RECOMMENDED:  
*Eishi Tanaka* 9/21/82  
TRAFFIC ENGINEER DATE

APPROVED:  
*Robert Z. S. S. S.* 9/22/82  
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

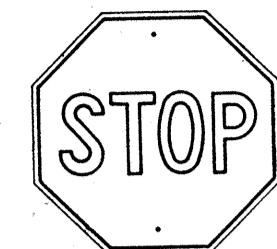
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

STANDARD DETAILS  
GALVANIZED SQUARE TUBE  
SIGN POST MOUNTING

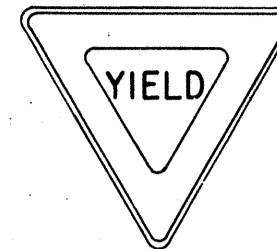
Scale: As Shown Date: Sept. 1982

SURVEY PLOTTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
ORIGINAL PLAN NO. \_\_\_\_\_  
NOTE BOOK QUANTITIES BY: \_\_\_\_\_  
No. \_\_\_\_\_

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	R3-0750(7)	1984	21	32



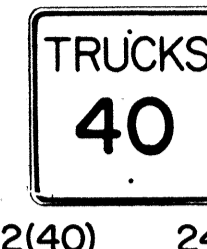
R1-1 30" x 30"  
R1-1-A 36" x 36"  
4-WAY  
R1-3 12" x 6"  
R1-3-A 18" x 9"



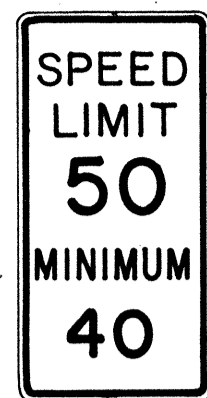
R1-2 36" x 36" x 36"  
R1-2-A 48" x 48" x 48"



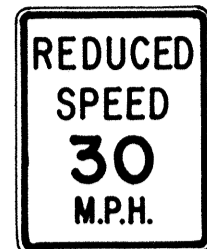
R2-1(50) 24" x 30"  
R2-1(50)-A 48" x 60"



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"



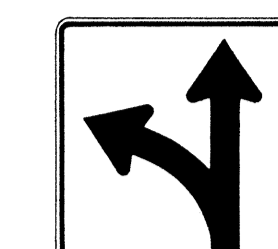
R3-3 24" x 24"  
R3-3-A 48" x 48"



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



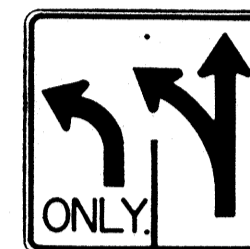
R3-5(L) 30" x 36"  
R3-5(L)-A 48" x 60"



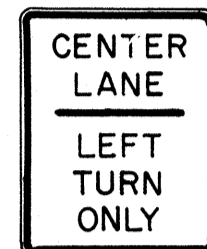
R3-6(L) 30" x 36"  
R3-6(L)-A 48" x 60"



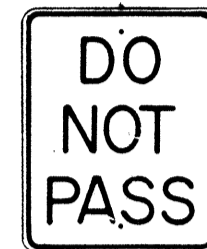
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R3-7(R)-A 48" x 48"



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



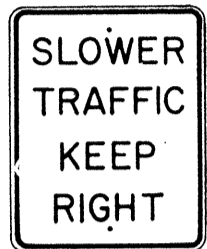
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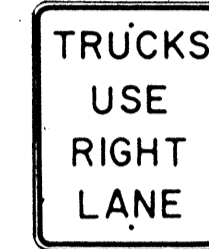
R4-1 24" x 30"



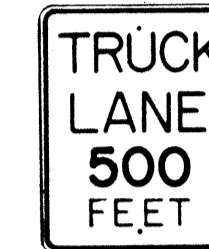
R4-2 24" x 30"



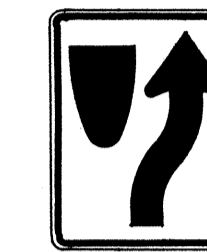
R4-3 24" x 30"  
R4-3-A 48" x 60"



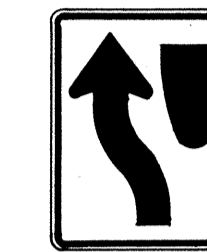
R4-5 24" x 30"



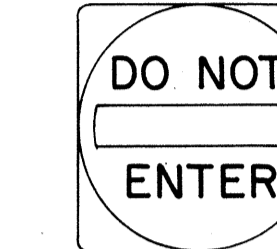
R4-6(500) 24" x 30"



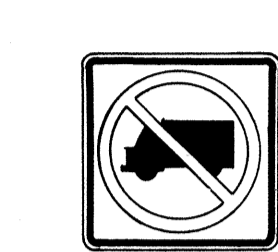
R4-7 24" x 30"  
24" x 18"



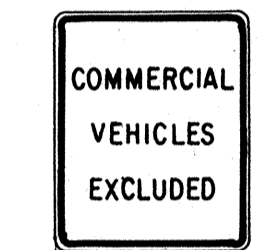
R4-8 24" x 30"  
24" x 18"



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"



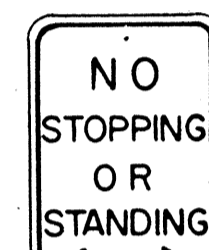
R6-1(R) 36" x 12"



R6-2(R) 18" x 24"



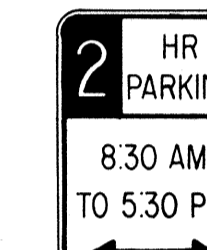
R7-1 12" x 18"  
R7-1-A 24" x 30"



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



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



R7-108 12" x 18"



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



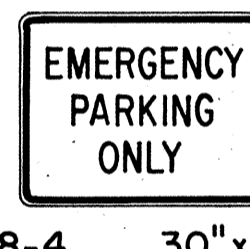
R8-1 24" x 30"



R8-2 24" x 30"



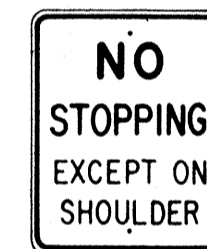
R8-3 24" x 30"



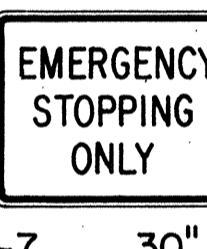
R8-4 30" x 24"  
R8-4-A 48" x 36"



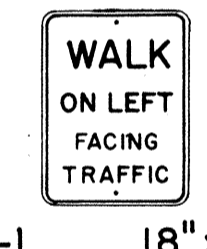
R8-5 24" x 30"



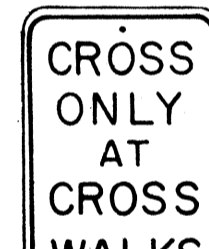
R8-6 24" x 30"



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



R9-1 18" x 24"



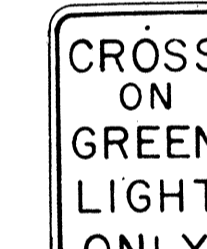
R9-2 12" x 18"



R9-3 12" x 18"



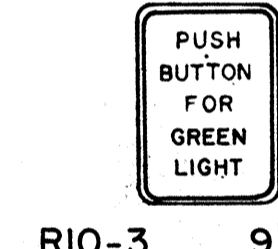
R9-4 18" x 24"



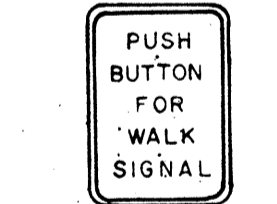
R10-1 12" x 18"



R10-2 12" x 18"



R10-3 9" x 12"



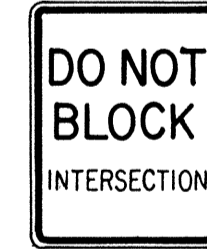
R10-4 9" x 12"



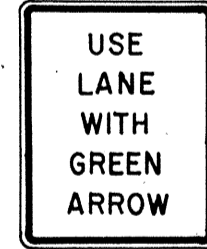
R10-5 24" x 30"



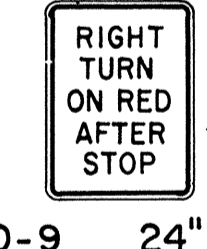
R10-6 24" x 36"



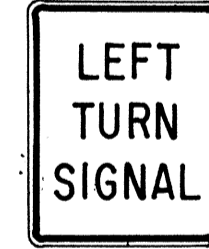
R10-7 24" x 30"



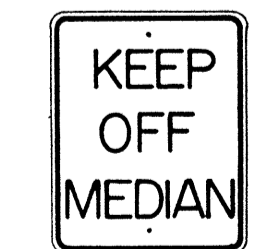
R10-8 24" x 30"



R10-9 24" x 30"



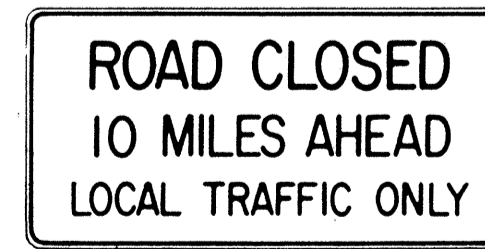
R10-10 24" x 30"



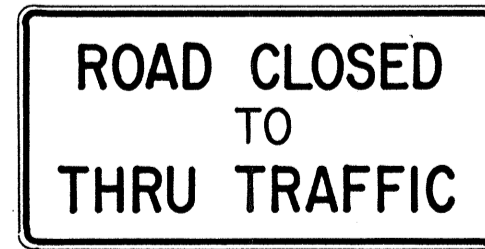
R11-1 24" x 30"



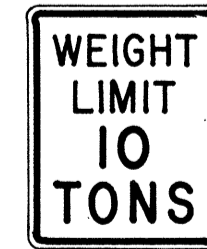
R11-2 48" x 30"



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," 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.

APPROVAL RECOMMENDED:  
*Eishi Tanaka* 3/11/72  
TRAFFIC ENGINEER DATE

APPROVED:  
*Julius Zetser* 3-28-72  
ASSISTANT CHIEF, ENGINEERING DATE

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

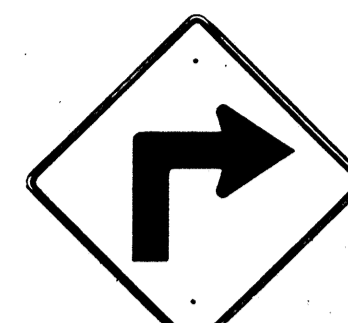

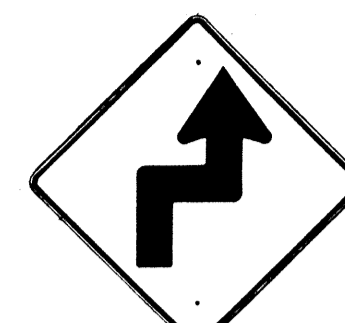


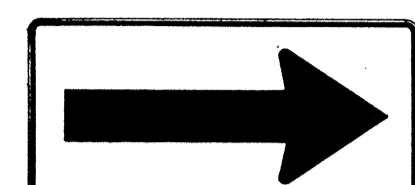
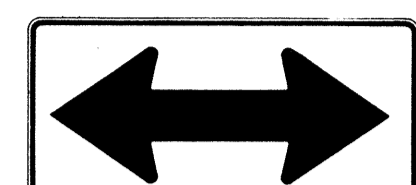
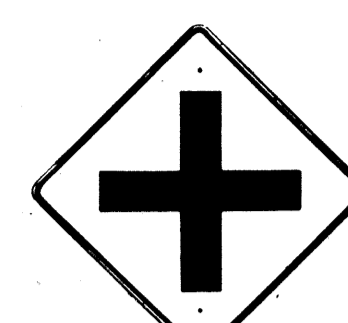
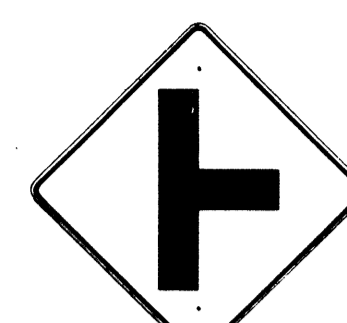
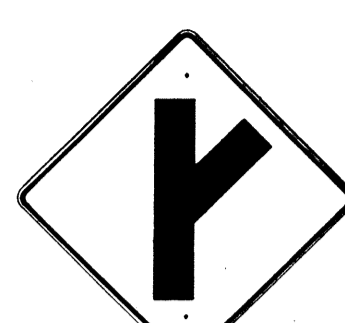
**STANDARD DETAILS**  
**REGULATORY SIGNS**

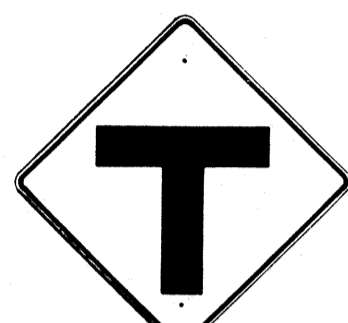



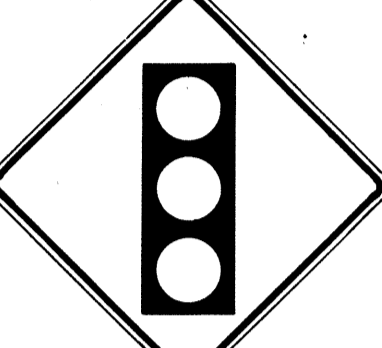

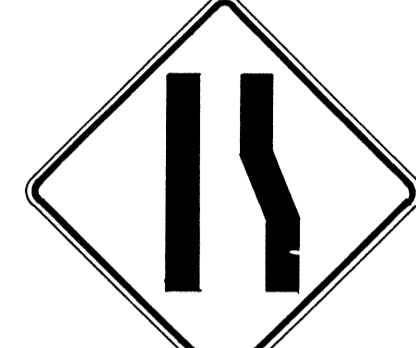



NOT TO SCALE











SHEET No. 6 OF 17 SHEETS DT 101








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

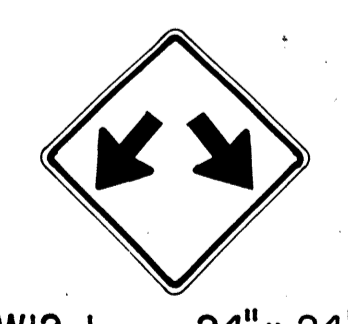


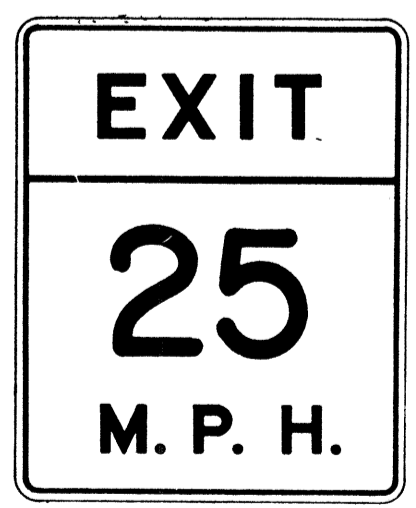
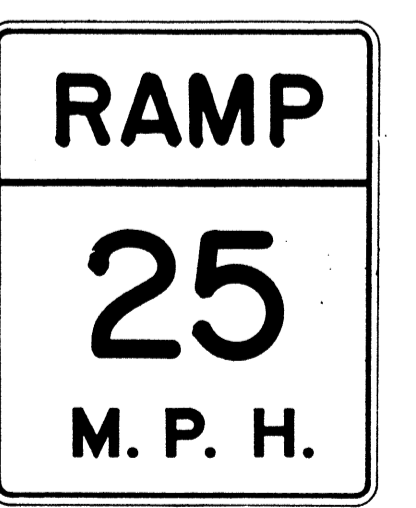


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII*	HAW.	88-0750(7)	1984	22	32

 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"	 SIGNAL AHEAD W3-3 36"x36" 24"x18"	 MERGE 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"	 ROAD NARROWS W5-1 36"x36"	 NARROW BRIDGE W5-2 30"x30" W5-2-A 36"x36"	 ONE LANE BRIDGE W5-3 36"x36"
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 DIVIDED HIGHWAY W6-1 36"x36" 24"x18"	 DIVIDED HIGHWAY ENDS W6-2 36"x36" 24"x18"	 TWO WAY TRAFFIC W6-3 30"x30" 24"x18" W6-3-A 36"x36" 24"x18" W6-3-B 48"x48" 24"x18"	 HILL W7-1 30"x30" 24"x18" W7-1-A 36"x36" 24"x18"	 USE LOW GEAR W7-2 24"x18"	 BUMP W8-1 30"x30" W8-1-A 36"x36"	 DIP W8-2 30"x30" W8-2-A 36"x36"	 PAVEMENT ENDS W8-3 30"x30" W8-3-A 36"x36"	 SOFT SHOULDER W8-4 30"x30" W8-4-A 36"x36"	 SLIPPERY WHEN WET W8-5 30"x30" 24"x18" W8-5-A 36"x36" 24"x18"
--	---	--	--	--	--	---	---	---	---

 RIGHT LANE ENDS W9-1(R) 30"x30" W9-1(R)-A 36"x36" W9-1(R)-B 48"x48"	 LANE ENDS MERGE LEFT W9-2(L) 36"x36" W9-2(L)-A 48"x48"	 R X R W10-1 36" Diameter	 BIKE XING W11-1 30"x30" 24"x18" W11-1-A 36"x36" 24"x18"	 PED XING W11-2 30"x30" 24"x18" W11-2-A 36"x36" 24"x18"	 CATTLE XING W11-4 30"x30" 24"x18" W11-4-A 36"x36" 24"x18"	 FARM MACHINERY 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"	 12'-6" LOW CLEARANCE W12-2(12'-6") 36"x36" 24"x18"	 25 M.P.H. W13-1(25) 18"x18" W13-1(25)-A 24"x24"	 EXIT 25 M.P.H. W13-2(25) 48"x60"	 RAMP 25 M.P.H. W13-3(25) 48"x60"	 DEAD END W14-1 30"x30"	 NO PASSING ZONE W14-3 36"x48"x48"
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**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 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, and shall be reflectorized.

APPROVAL RECOMMENDED:  
*Evelyn Tanaka* 3/17/82  
TRAFFIC ENGINEER DATE

APPROVED:  
*Walter Belsid* 3-20-82  
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 102 Approved 12-30-69	H.T.	3/20/82
2	Revised General Note 1	H.T.	10/16/84
3	Revised General Note 5	M.H.	9-16-75
4	Revised General Note 5	H.T.	9-14-76
5	Added Note 1	H.T.	11-9-79

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STANDARD DETAILS**  
**WARNING SIGNS**

NOT TO SCALE

SHEET No. 7 OF 17 SHEETS DT 102

NOTE  
1. All signs shall be erected without educational plaques unless called for in the plans.

DATE \_\_\_\_\_  
DESIGNED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
DATE \_\_\_\_\_  
DESIGNED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	R5-0750(7)	1984	23	32

**General Notes**

- Sign details shall conform to the latest editions of the following FHWA publications:
  - "Standard Alphabets for Highway Signs," and as amended.
  - "Standard Highway Signs," and as amended.
  - "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- All signs shall be reflectorized with reflective sheeting, unless otherwise specified.
- All signs shall have  $\frac{3}{8}$ " bolt holes drilled at appropriate locations.
- Numerals in ( ) indicate 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, and shall be reflectorized with reflective sheeting.
- All signs shall be erected without educational plaques unless called for in the plans.

**ALL WAY**  
R1-4 18" x 6"

**REDUCED SPEED 35 AHEAD**  
R2-5d(35) 24" x 30"  
R2-5d(35)-A 48" x 60"

**SPEED LIMIT ENFORCED BY VASCAR** } 4" Series D  
- 4" Series C  
- 3" Series D  
- 5" Series C  
R2-10 24" x 30"

**CENTER LANE ONLY**  
R3-9b 24" x 36"

**BUS STOP**  
R7-107(R) 12" x 24"

**RESERVED PARKING**  
R7-8 12" x 18"  
R7-8-A 24" x 30"

**NO PARKING ANY TIME** - 4" Series C  
- 1 1/2"  
R8-3a 24" x 24"  
24" x 18"  
R8-3a-A 48" x 48"

**NO PED XING**  
R9-3a 18" x 18"  
18" x 12"  
R9-3a-A 24" x 24"  
24" x 18"

**USE CROSSWALK**  
R9-3b(R) 18" x 12"  
R9-3b(L) 18" x 12"

**NO TURN ON RED**  
R10-11a 24" x 30"

**TURN RIGHT ANY TIME WITH CAUTION** 4" Series C  
R16-1 24" x 30"

**NO LEFT TURN ON RED** - 4" Series D -  
- 3" Series D -  
- 2" Series D -  
- 3" Series D -  
R16-3 18" x 24"

**NO RIGHT TURN ON RED**  
R16-4 18" x 24"

**UNLICENSED VEHICLES BICYCLES, CYCLES UNDER 5 H.P., PEDESTRIANS KEEP OUT FREEWAY** } 3" Series C  
- 4" Series E  
R16-5 36" x 42"

**U TURN AHEAD** } - 8" Series F  
- 5" Series D  
R16-6 24" x 30"

**U TURN OK** } - 8" Series F  
- 5" Series D  
R16-7 24" x 30"

**MOTOR-DRIVEN CYCLES PROHIBITED** 4" Series B  
R5-8 30" x 24"

**U TURN AHEAD** (diamond)  
W17-1(L) 60" x 60"

**STOP AHEAD**  
W3-1a 36" x 36"  
24" x 18"  
W3-1a-A 48" x 48"  
24" x 18"

**YIELD AHEAD**  
W3-2a 36" x 36"  
24" x 18"  
W3-2a-A 48" x 48"  
24" x 18"

**STOP AHEAD WHEN FLASHING** 6" Series C  
W3-4 48" x 48"

**TRUCK CROSSING**  
W8-6 30" x 30"  
W8-6-A 36" x 36"

**THRU TRAFFIC MERGE LEFT** 6" Series E  
W9-3(L) 48" x 48"

**EQUESTRIAN XING**  
W11-7 36" x 36"  
24" x 18"  
W11-7-A 48" x 48"  
24" x 18"

**FIRE STATION**  
W11-8 36" x 36"  
24" x 18"  
W11-8-A 48" x 48"  
24" x 18"

**WHEELCHAIR ACCESSIBLE**  
W11-9 36" x 36"  
W11-9-A 48" x 48"

**LIMITED SIGHT DISTANCE**  
W14-4 36" x 36"  
W14-4-A 48" x 48"

**DELAYED GREEN** - 4" Series C -  
W15-1 24" x 24"

**ADVANCE GREEN**  
W15-2 24" x 24"

**END FREEWAY 1/2 MI** 8" Series E  
CW16-1(1/2) 60" x 60"

**RIGHT LANE EXIT ONLY** 8" Series E  
W18-1 48" x 60"

**SCHOOL BUS STOP AHEAD**  
S3-1 30" x 30"

**8:00 AM TO 3:30 PM**  
S4-1 24" x 10"

**SCHOOL**  
S4-3 24" x 8"

**WHEN CHILDREN ARE PRESENT**  
S4-2 24" x 10"

**WHEN FLASHING**  
S4-4 24" x 10"

**SIDEWALK CLOSED** 7" Series D  
CW23-4 48" x 48"

**USE SIDEWALK** 4" Series C  
R18-1 24" x 18"

APPROVAL RECOMMENDED:  
Etichi Tanaka 5/2/78  
TRAFFIC ENGINEER DATE

APPROVED:  
Harbor Z. Dakeishi 5/3/78  
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht DT 103 approved 3/20/72	H.T.	5/3/78
2	Added General Note 6	H.T.	11/9/78

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STANDARD DETAILS**

MISCELLANEOUS SIGNS

NOT TO SCALE DATE: MAY, 1978  
SHEET NO. 8 OF 17 SHEETS DT 103

DATE: \_\_\_\_\_  
SURVEY PLOTTED BY: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_  
QUANTITIES BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
ORIGINAL PLAN No. \_\_\_\_\_

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-0750(T)	1984	24	32



CW20-1a 48"x48"



CW20-2d 48"x48"



CW20-3b 48"x48"



CW20-4d 48"x48"



CW20-5d(L) 48"x48"



CW20-7c 48"x48"



CW21-1 30"x30"



CW21-2 30"x30"



CW21-3 36"x36"



CW21-4 36"x36"



CW21-5 30"x30"



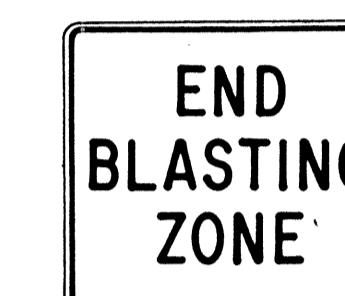
CW21-6 30"x30"



CW22-1b 48"x48"



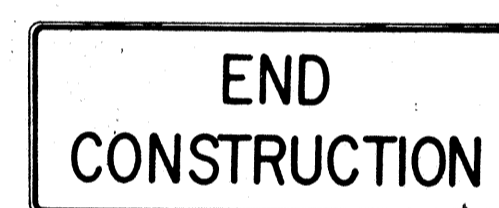
CW22-2 42"x36"



CW22-3 42"x36"



CG20-1(5) 60"x36"



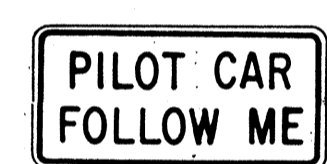
CG20-2 60"x24"



CM4-9(R) 30"x24"



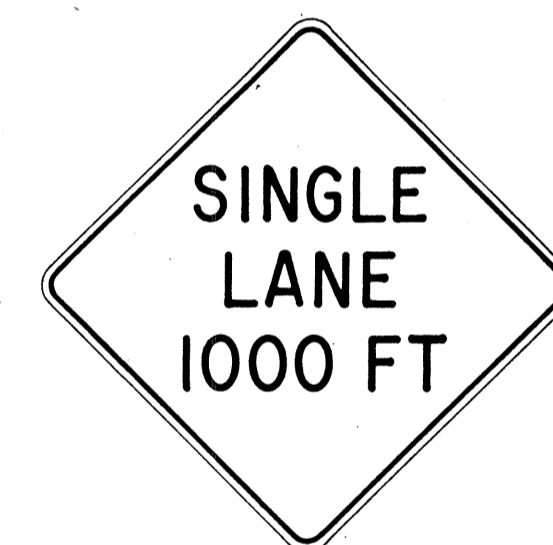
CM4-10(R) 48"x18"



CG20-4 36"x18"



CW23-1 36"x36"



CW23-2b 48"x48"



CW23-3(R) 48"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," 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:  
*Eishi Tanaka* 3/21/72  
TRAFFIC ENGINEER DATE

APPROVED:  
*Walter Sakai* 3/23/72  
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	H.C.	3/23/72
2	Revised General Note 1	H.C.	10/10/74
3	Revised General Note 2	MH	9-16-75
4	Revised General Note 2 and sign CG20-1(5)	H.C.	9-14-76

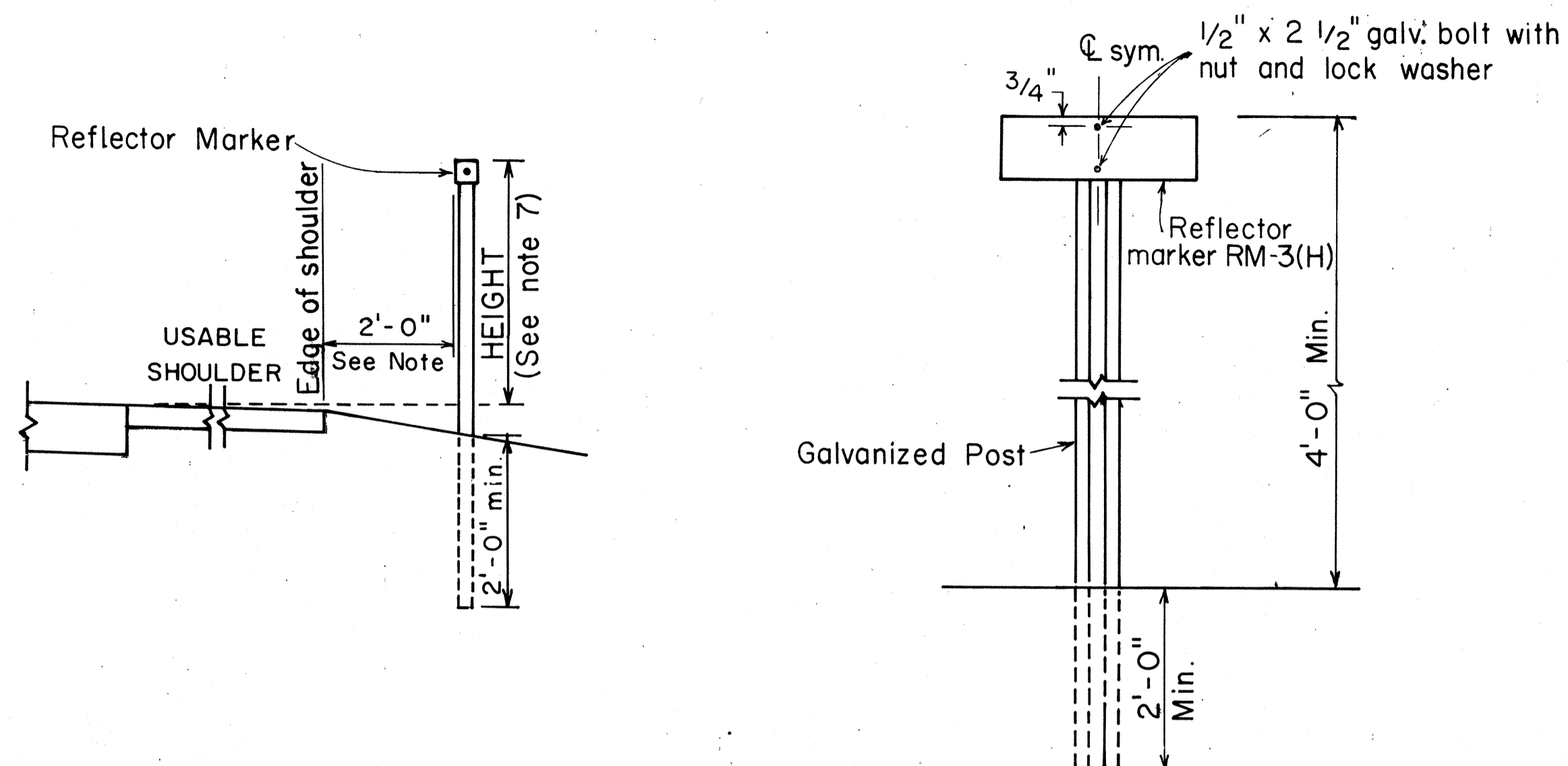
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STANDARD DETAILS**  
**CONSTRUCTION SIGNS**

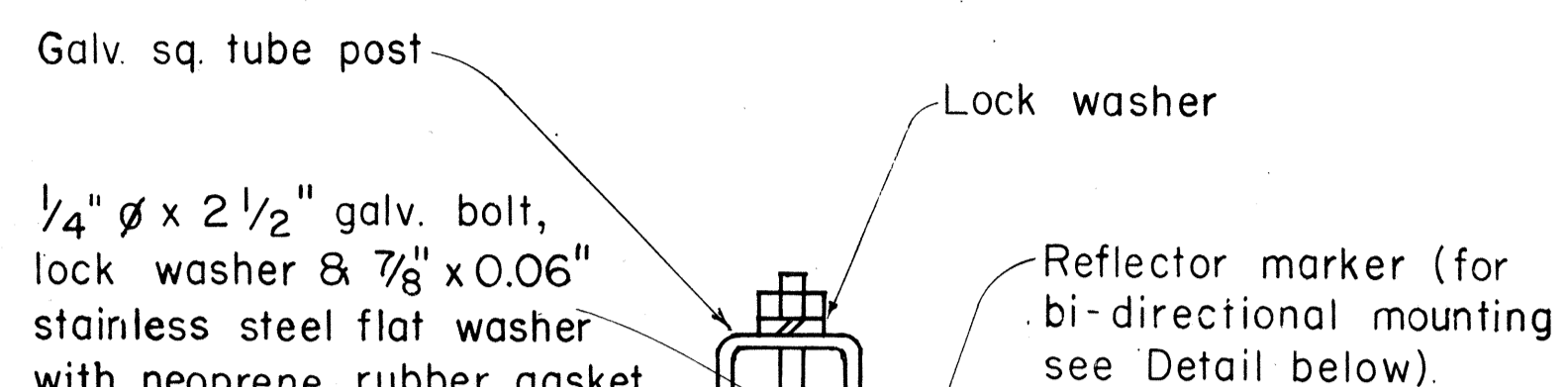
NOT TO SCALE

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
NO.	

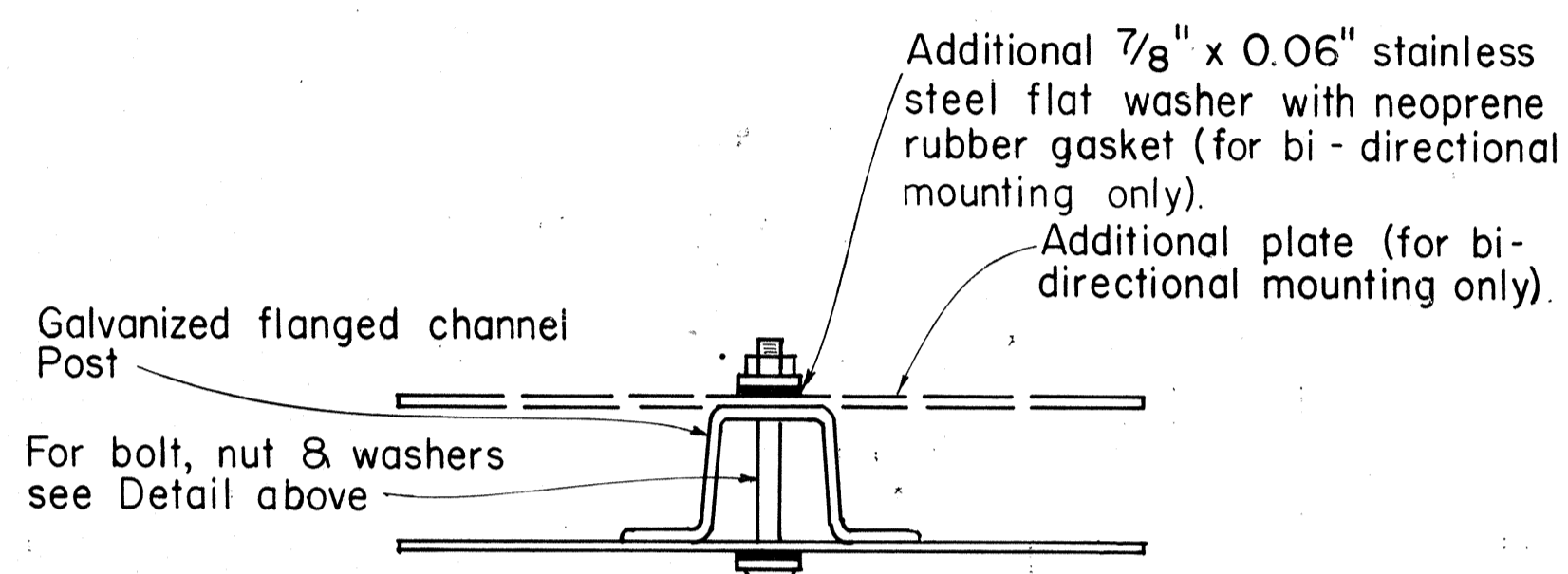
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-0750(7)	1984	25	32



**REFLECTOR MARKER MOUNTING DETAIL**



**GALVANIZED SQUARE TUBE POST**



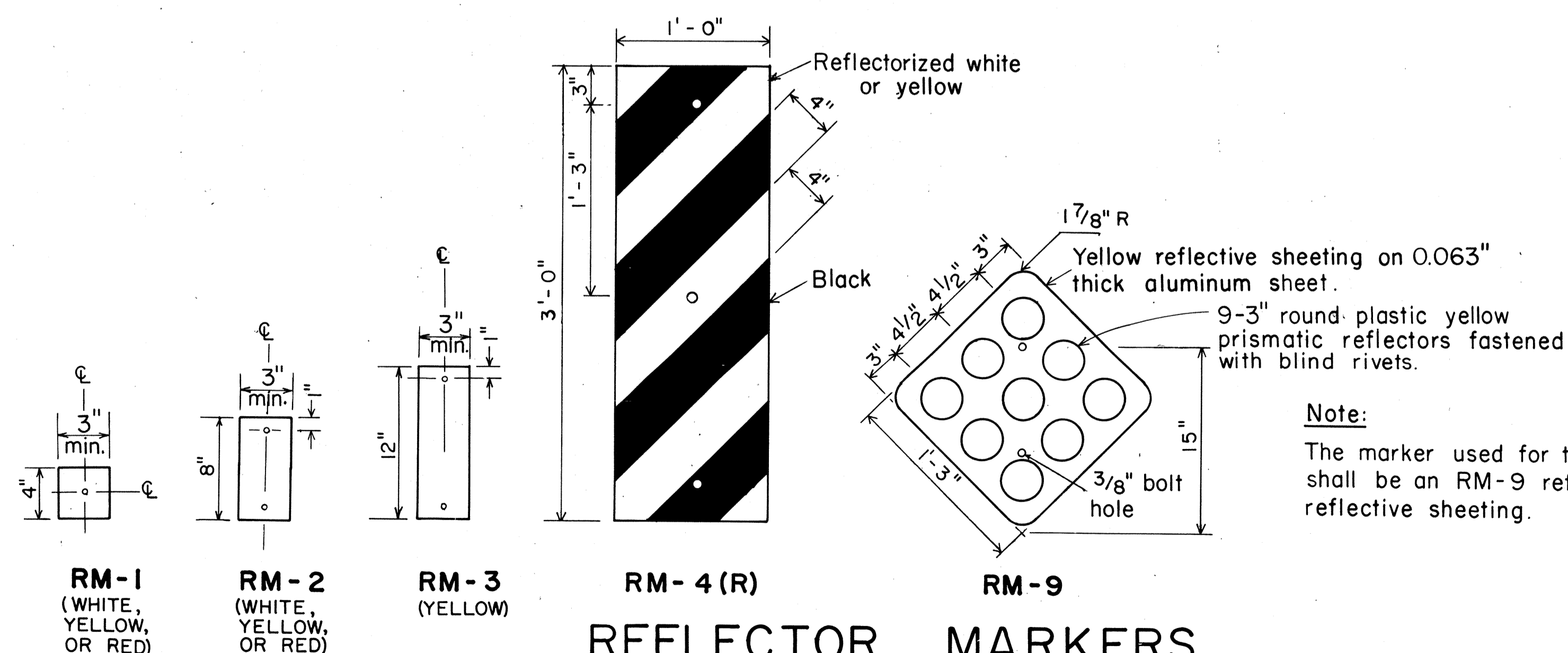
**GALVANIZED FLANGED CHANNEL POST**

**TYPICAL MOUNTING DETAILS**

**GENERAL NOTES:**

1. Clearance markers (RM-3, RM-4) shall be installed with the edge of the marker in line with the inner edge of the obstruction.
2. (R) or (L) indicates right or left and shall be as shown on the plans.
3. Reflector markers RM-1 and RM-2 shall be:
  - a) Yellow if placed along the left edge of divided roadways, one-way roadways, and ramps in the direction of travel.
  - b) White if placed along the right edge of divided roadways, one-way roadways, and ramps in the direction of travel.
4. For RM-4, the stripes shall slope downward at an angle of 45° toward the side of the obstruction that traffic is to pass.
5. For reflector marker RM-9, reflective sheeting material may be used as an alternate.
6. (H) indicates horizontal mounting of reflector marker.
7. Height = 4'-0" min. for RM-1, RM-2 and RM-3.  
Height = 5'-6" min. for RM-4 and RM-9.
8. Final locations of reflector markers shall be approved by the Engineer.

ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	



**REFLECTOR MARKERS**

APPROVAL RECOMMENDED:  
*Eishi Tanaka* 11/1/77  
 TRAFFIC ENGINEER DATE

APPROVED:  
*Herbert S. Sakai* 11/15/77  
 ASSISTANT CHIEF, ENGINEERING DATE

NO	REVISION	APPROVED BY	DATE
1	Revised Mounting Details	H.T.	4/23/80
2	Revised General Notes, Mounting Details and Reflector Markers.	H.T.	7-28-83

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

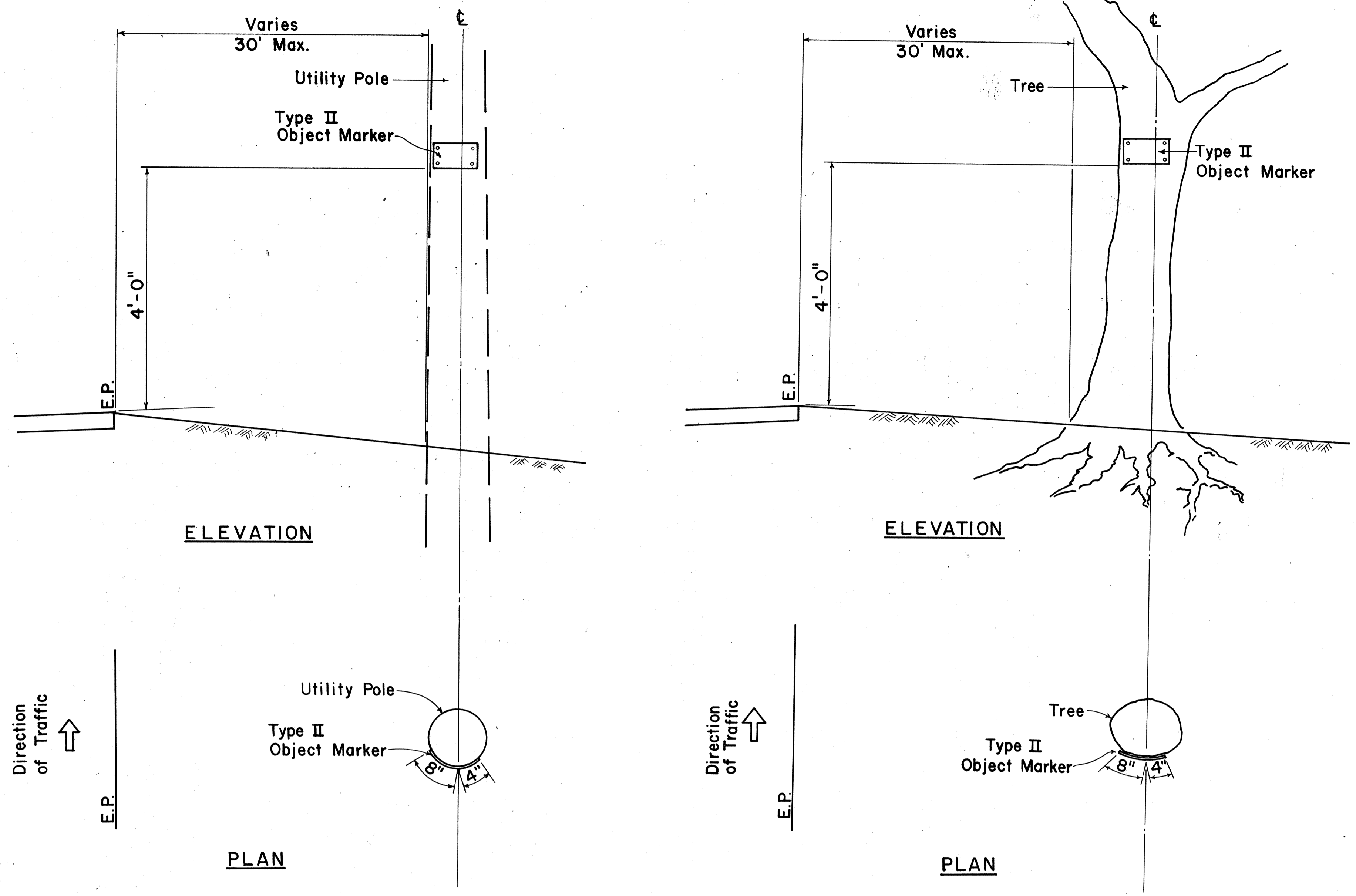
**STANDARD DETAILS**  
 MISCELLANEOUS REFLECTOR MARKERS

Not to scale June, 1977  
 SHEET NO. 10 OF 17 SHEETS DT 110

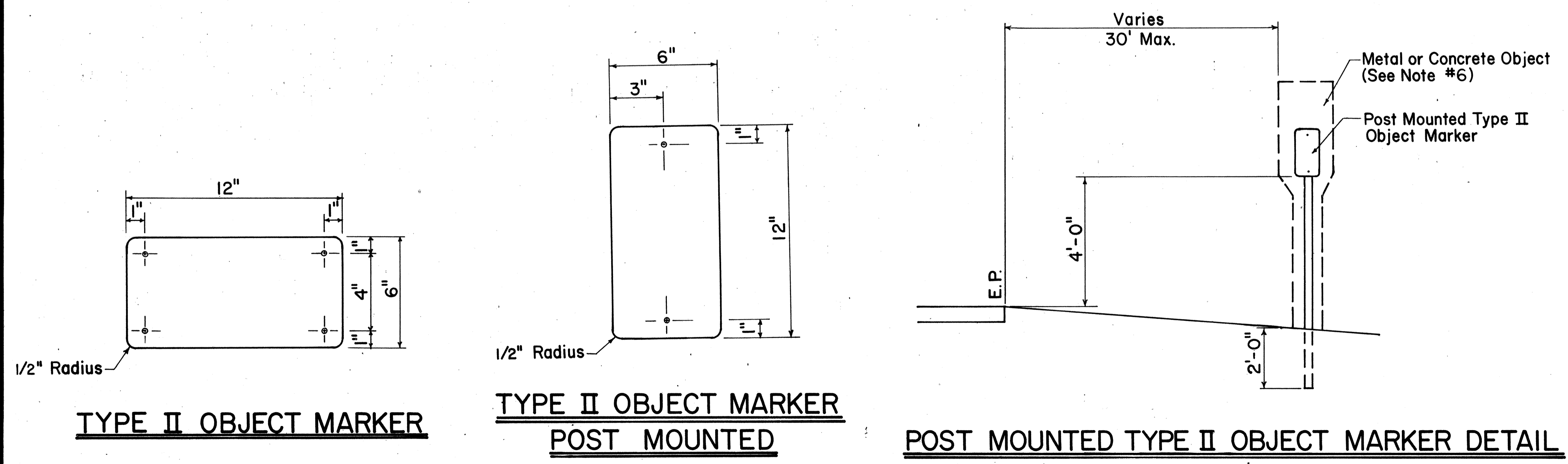
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-0750(7)	1984	26	32

**GENERAL NOTES**

1. All objects (utility poles or trees) that are within the State highway right of way and within 30 feet of the roadway edge of pavement shall be marked as directed by the Engineer.
2. The Contractor shall prepare the mounting surface of each object as directed by the Engineer and place the Type II Object Marker as shown on this plan.
3. Type II Object Markers shall be mounted on utility poles and trees with 1 3/4" galv. roofing nails (4 ea.).
4. Branches of trees which obscure the object markers shall be trimmed. (Payment shall be incidental to Type II Object Markers as shown in the proposal).
5. Type II Object Markers for utility poles and trees, etc., shall be made of amber reflective sheeting material overlaid on 0.020" aluminum sheeting.
6. Objects such as concrete posts, concrete or rock walls and boxes, metal posts (greater than 2" in diameter), or metal boxes shall be marked with post mounted object markers. Post mounted Type II Object Markers shall conform to the following requirements:
  - a. It shall consist of amber reflective sheeting material overlaid on 0.063" thick sheet aluminum backing of the dimensions shown on the plans.
  - b. It shall be mounted on either metal posts or flexible delineator posts with 1/4"x2" galv. bolts, nuts and washers. Metal posts shall be galvanized and shall be either 1 1/2"x 1 1/2", 12 gage square tube posts or 1.12 lbs. per ft. flanged channel posts.



**TYPICAL TYPE II OBJECT MARKER MOUNTING DETAIL**



APPROVAL RECOMMENDED:  
*Eishi Tanaka* 3/30/83  
 TRAFFIC ENGINEER DATE

APPROVED:  
*S. Fujiyama* 3-31-83  
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**STANDARD DETAILS**

**TYPE II OBJECT MARKERS**

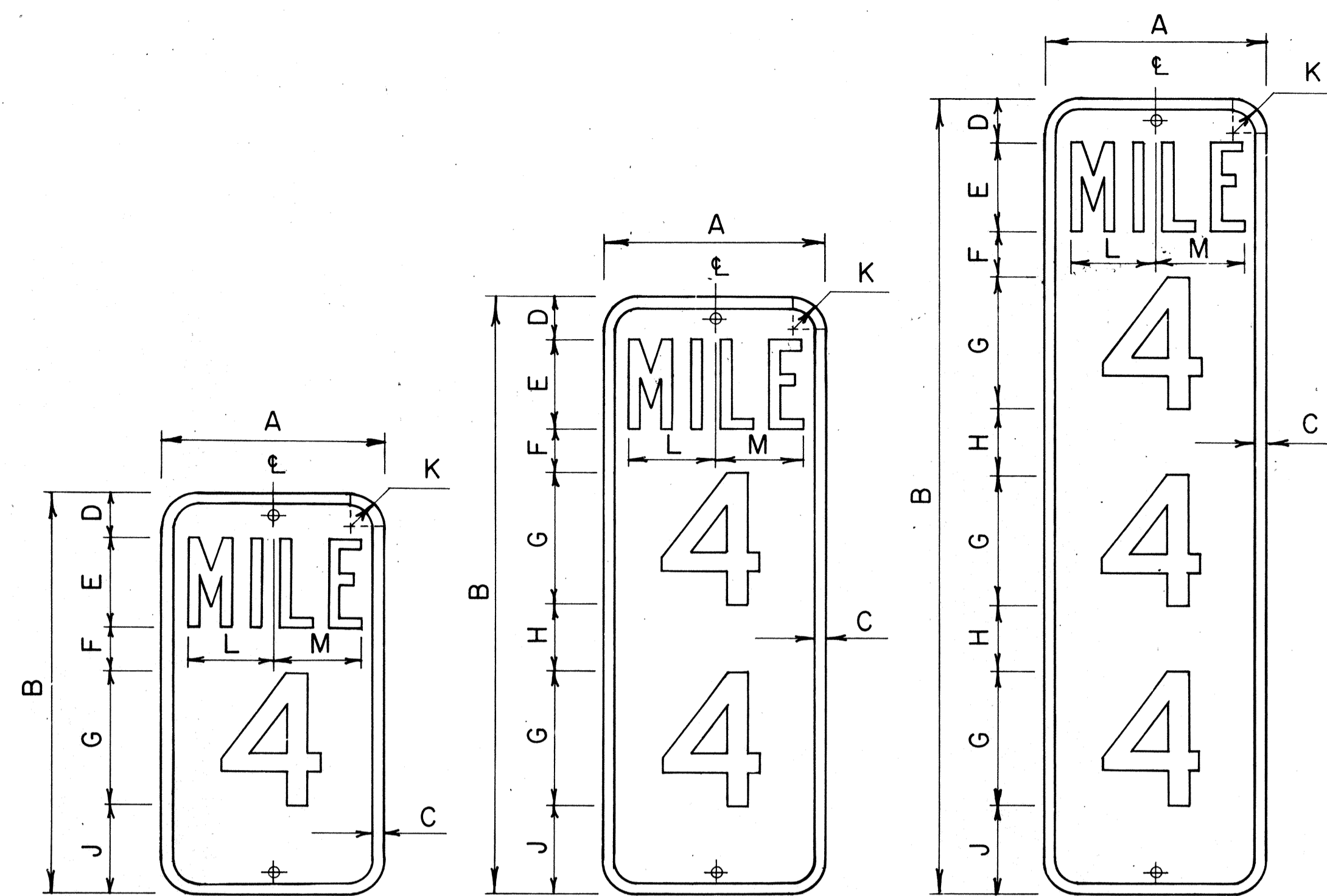
Scale: Not to scale Date: March 1983  
 SHEET No. 11 OF 17 SHEETS DT III

DATE	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RG-0750(7)	1984	27	32

**GENERAL NOTES:**

- Milepost marker and highway route number plates shall conform to the latest editions of the following FHWA publications:
  - "Standard Alphabets for Highway Signs," and as amended.
  - "Standard Highway Signs," and as amended.
  - "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- Milepost markers and highway route numbers shall be completely reflectorized with reflective sheeting as follows:
  - Milepost markers shall have white legends and border on a green background.
  - Highway route numbers shall have black numerals on a white background.
- The plate backings for milepost markers and highway route numbers shall conform to the requirements for standard highway signs. The plates shall have 3/8" bolt holes drilled at appropriate locations.
- Highway route number plates shall be used in conjunction with milepost marker plates on all roadways, except Interstate freeways. Fabrication and installation costs of highway route number plates shall be considered incidental to the milepost marker assembly.
  - One milepost on each side of multi-lane roadways.
  - Back-to-back mileposts on one side of 2-lane roadways. (Right side of roadway in direction of increasing mileage.)

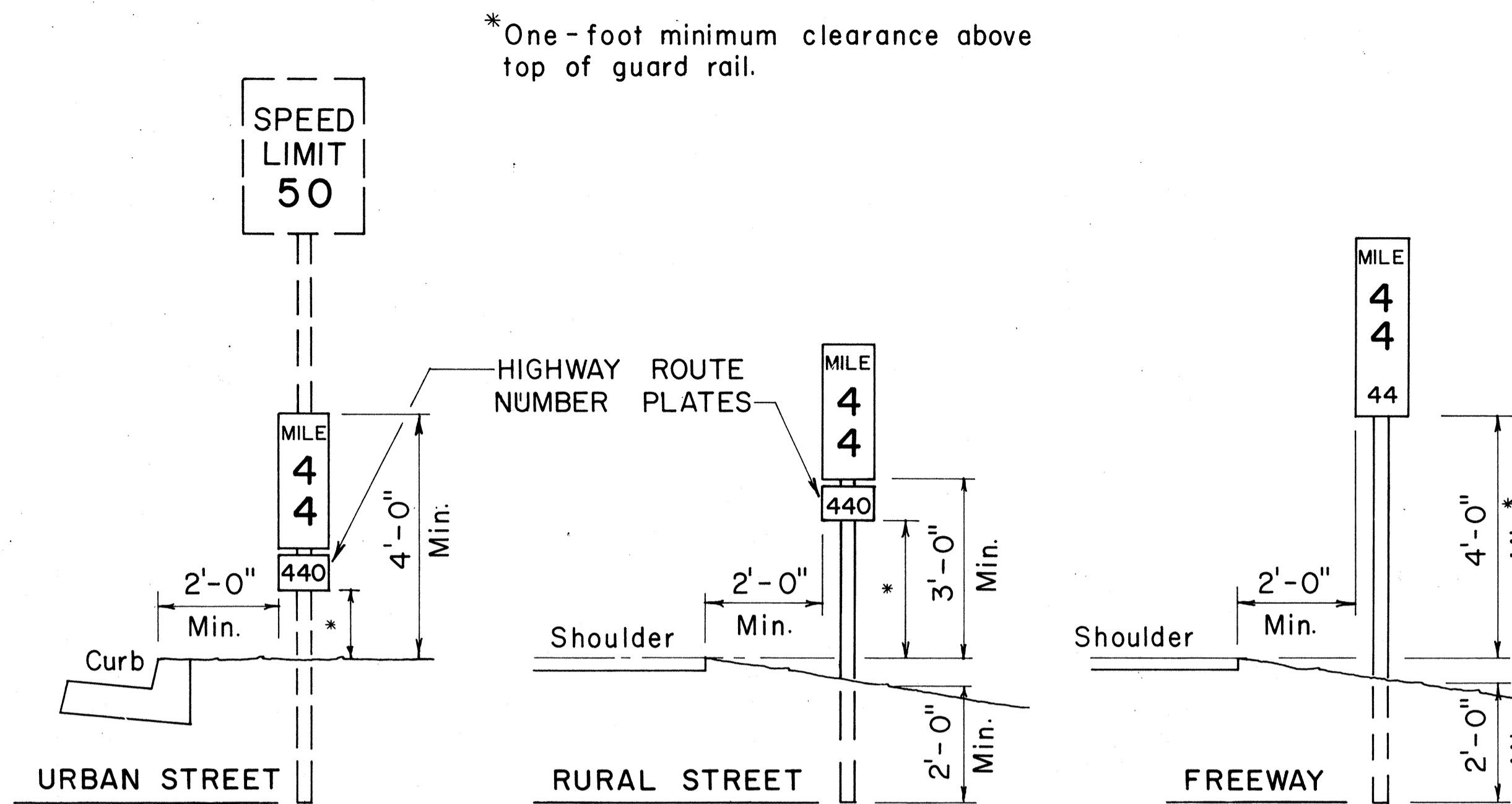


DIO-1	10" x 18"	DIO-2	10" x 27"	DIO-3	10" x 36"
DIO-4	12" x 24"	DIO-5	12" x 36"	DIO-6	12" x 48"

**MILEPOST MARKER PLATE DETAILS**

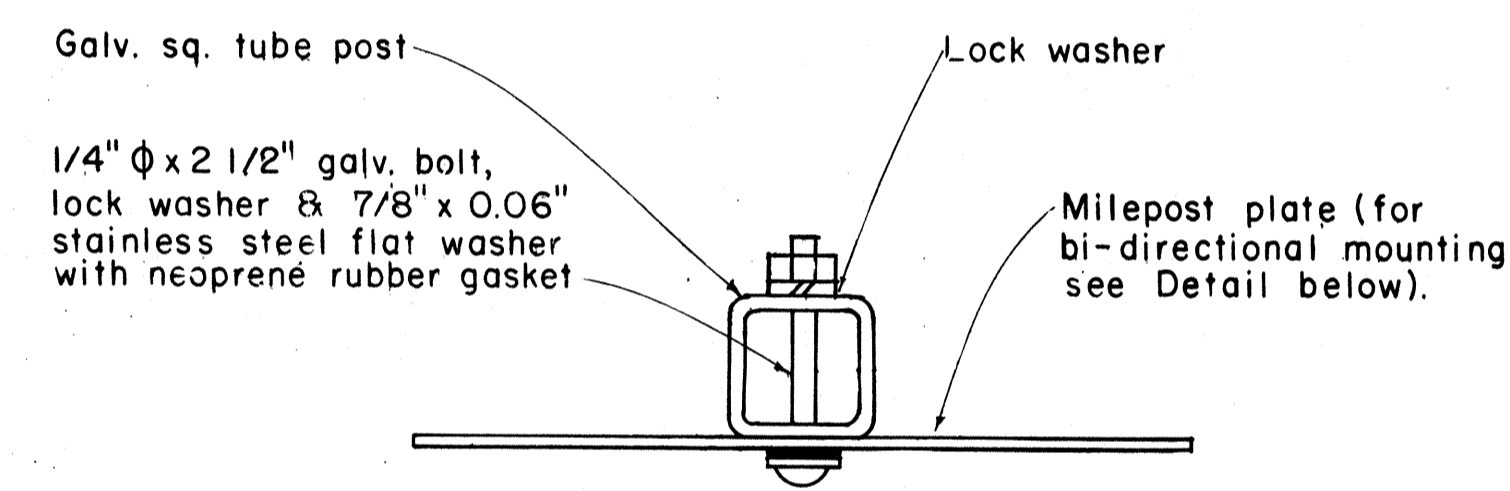
Scale: 3/16" = 1"

MILEPOST PLATE SCHEDULE (INCHES)															
NAME	SIZE	A	B	C	D	E	F	G	H	J	K	L	M	LETTER SERIES	NUMERAL SERIES
DIO-1	10 x 18	10	18	1/2	2	4	2	6		4	1 1/2	3 5/8	3 3/8	B	C
DIO-4	12 x 24	12	24	1/2	3	4	3	10		4	1 1/2	4 3/8	4 3/8	C	C
DIO-2	10 x 27	10	27	1/2	2	4	2	6	3	4	1 1/2	3 5/8	3 3/8	B	C
DIO-5	12 x 36	12	36	1/2	3	4	3	10	3	3	1 1/2	4 3/8	4 3/8	C	C
DIO-3	10 x 36	10	36	1/2	2	4	2	6	3	4	1 1/2	3 5/8	3 3/8	B	C
DIO-6	12 x 48	12	48	1/2	3	4	3	10	2 1/2	3	1 1/2	4 3/8	4 3/8	C	C

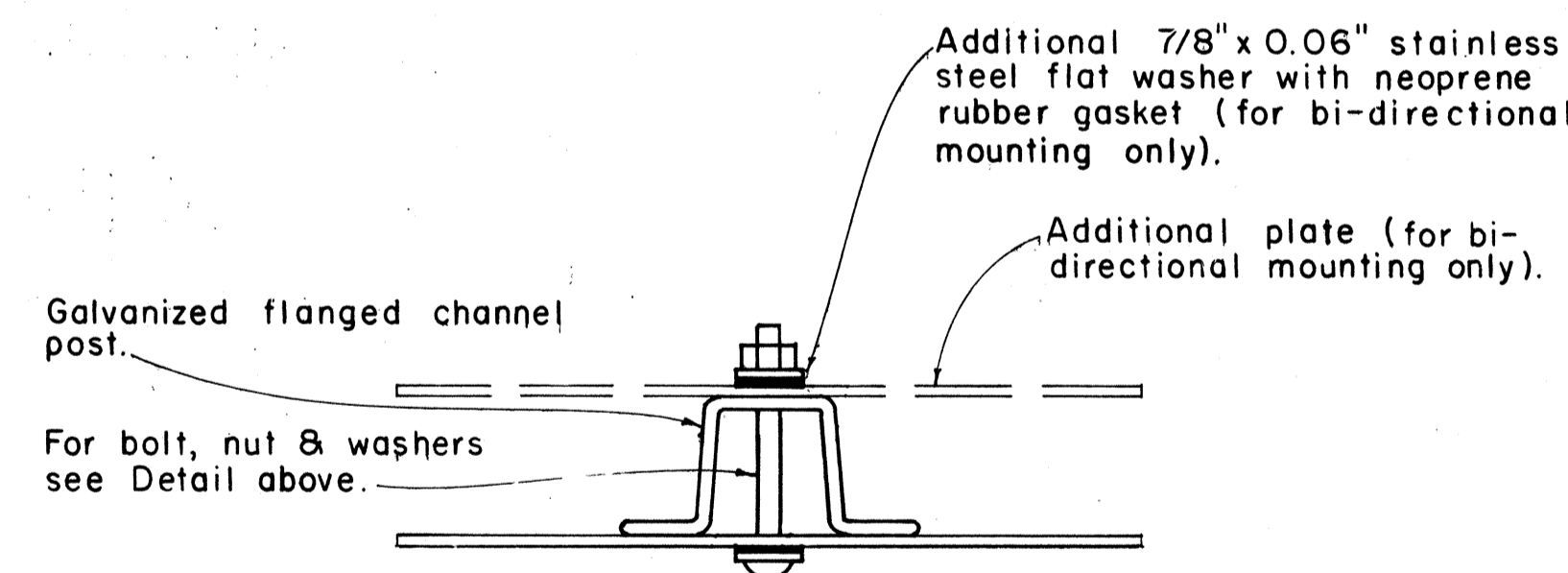


**TYPICAL ROADSIDE INSTALLATION**

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



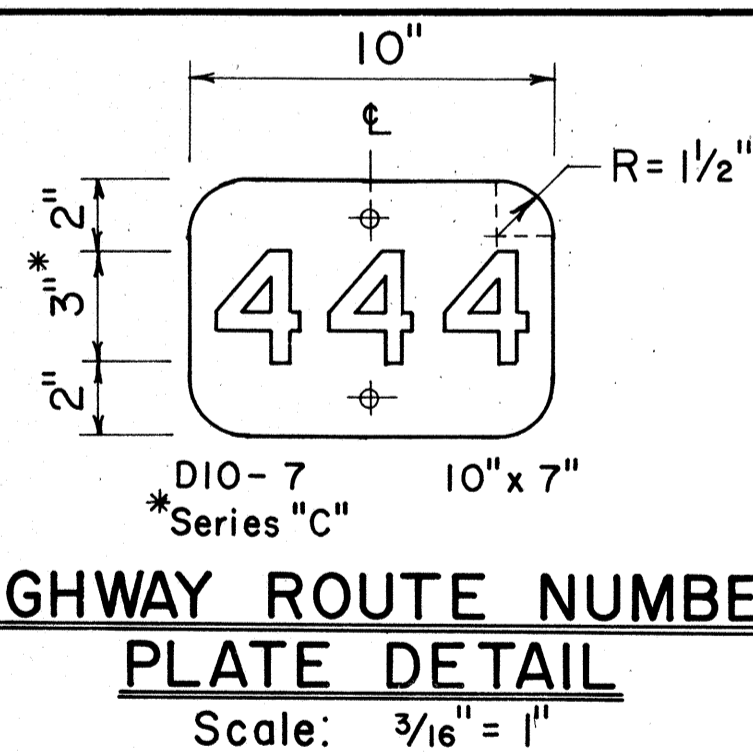
**GALVANIZED SQUARE TUBE POST**



**GALVANIZED FLANGED CHANNEL POST**

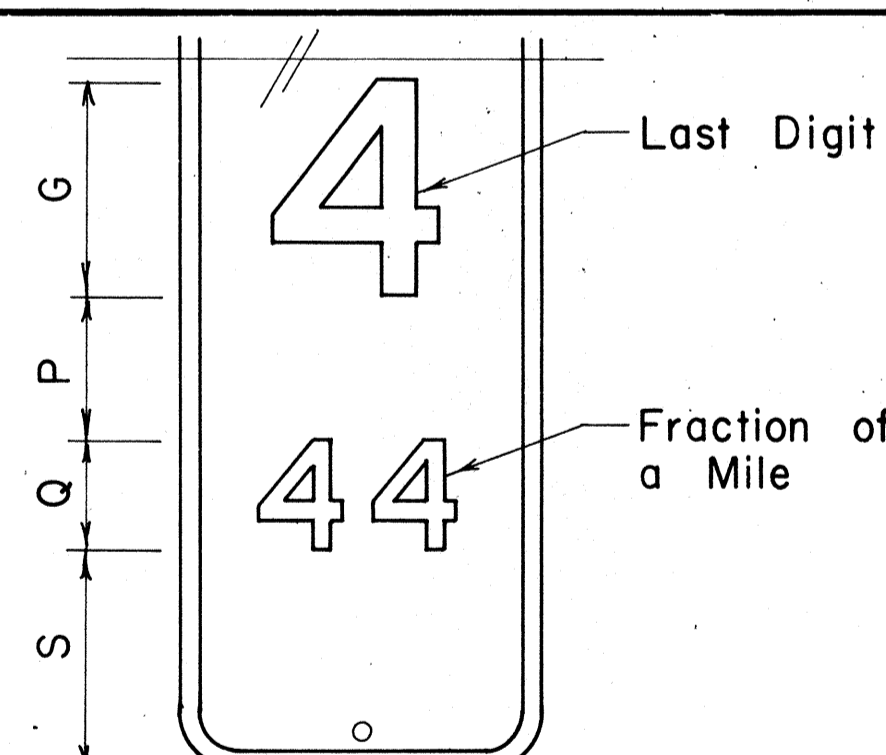
**TYPICAL MOUNTING DETAILS**

Scale: 1/2" = 1"



**HIGHWAY ROUTE NUMBER PLATE DETAIL**

Scale: 3/16" = 1"



**MILEPOST MARKER FRACTION DETAIL**

Scale: 3/16" = 1"

MILEPOST PLATE SCHEDULE WITH FRACTION OF A MILE						
NAME	SIZE	G	P	Q	S	NUMERAL SERIES
D10-1a	10" x 27"	6"	4"	3"	6"	C
D10-4a	12" x 36"	10"	4"	5"	7"	C
D10-2a	10" x 36"	6"	4"	3"	6"	C
D10-5a	12" x 48"	10"	4"	5"	6"	C
D10-3a	10" x 45"	6"	4"	3"	6"	C
D10-6a	12" x 60"	10"	4"	5"	6"	C

NO.	REVISION	APPROVED BY	DATE
1	Revised Mounting Details	H.K.	4/23/80

APPROVAL RECOMMENDED:  
*Eishi Tanaka* 4/17/78  
 TRAFFIC ENGINEER DATE

APPROVED:  
*Robert B. Zaleski* 4/23/80  
 ASSISTANT CHIEF, ENGINEERING DATE

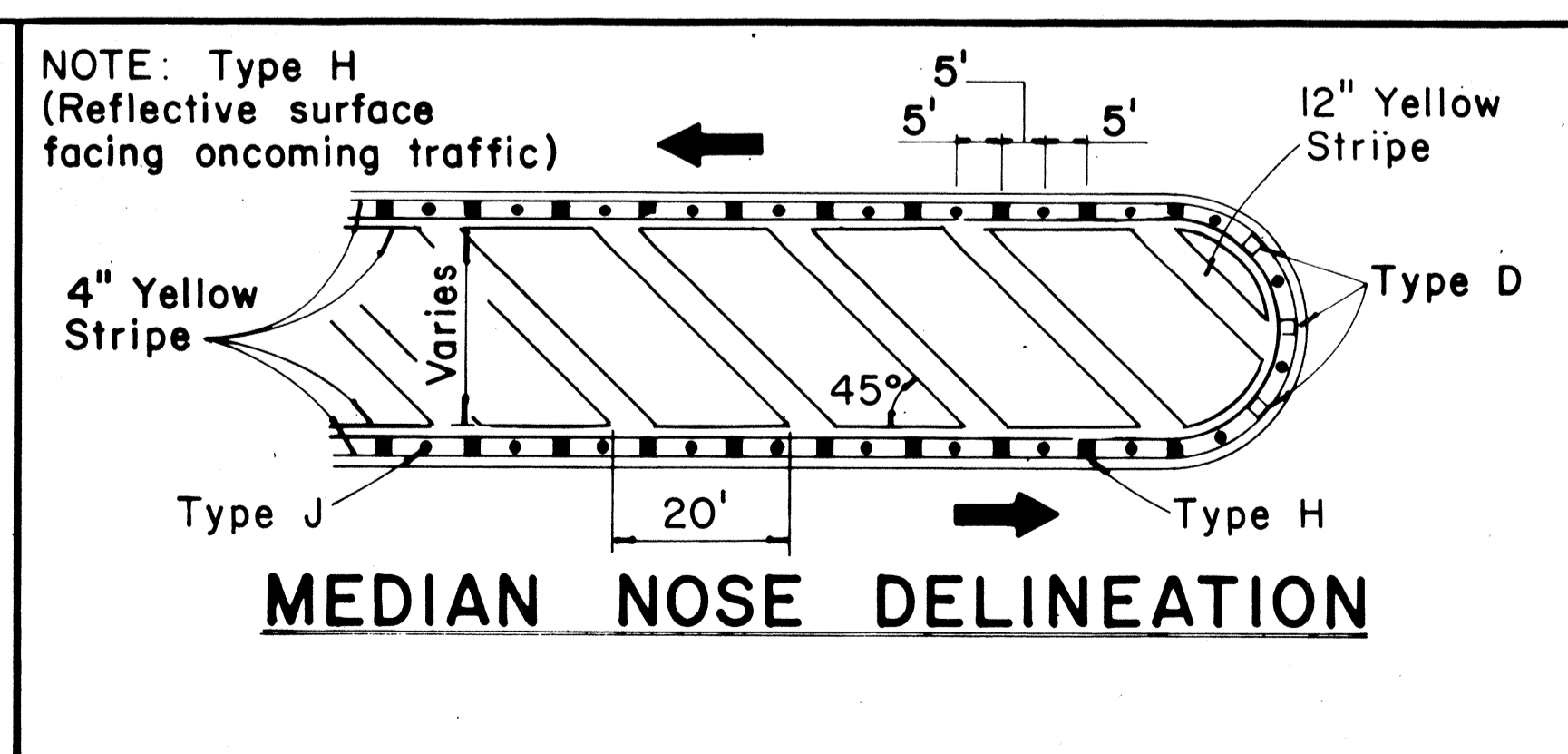
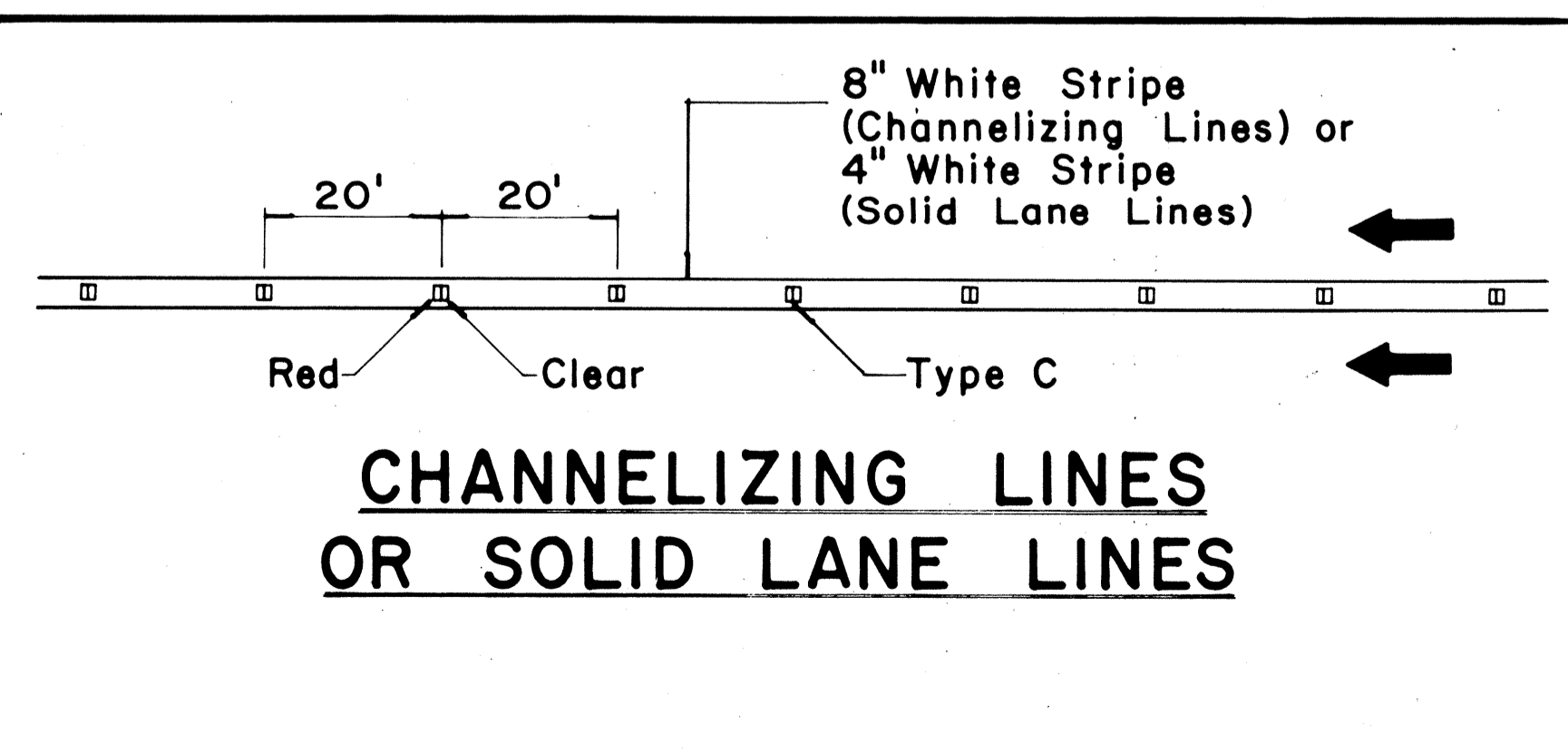
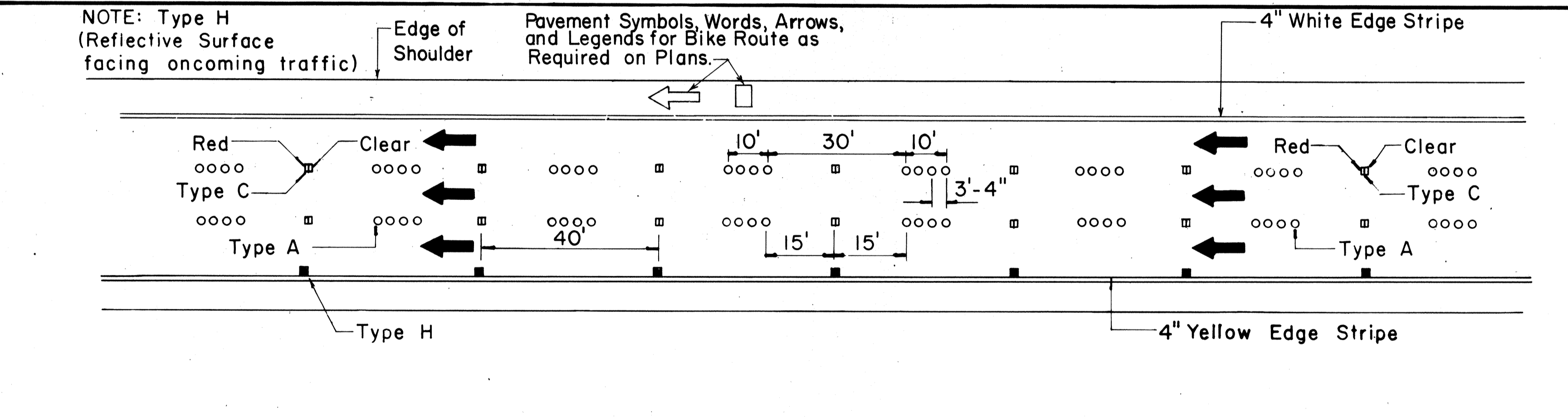
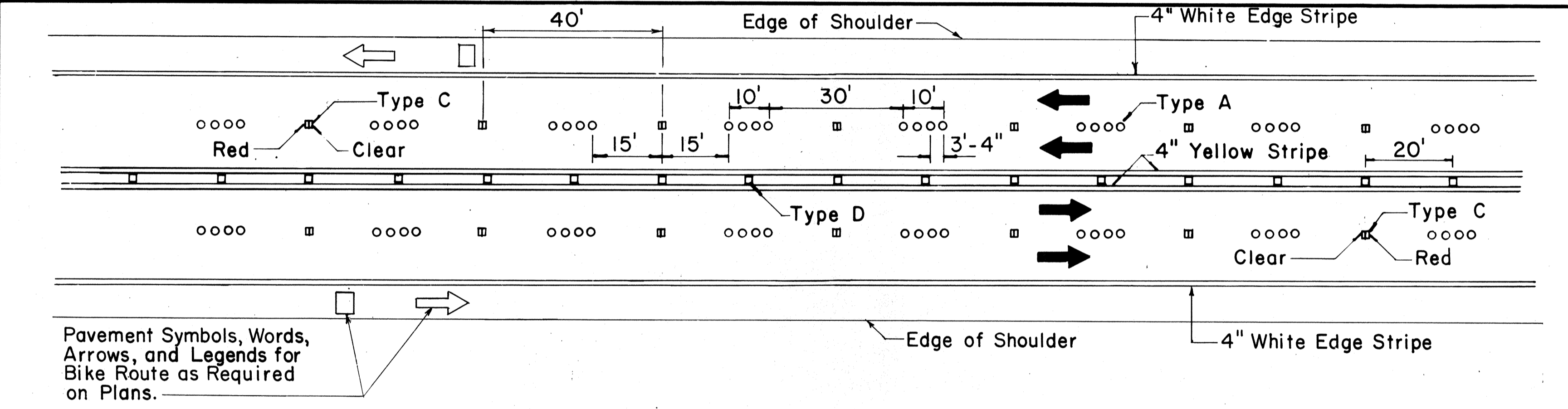
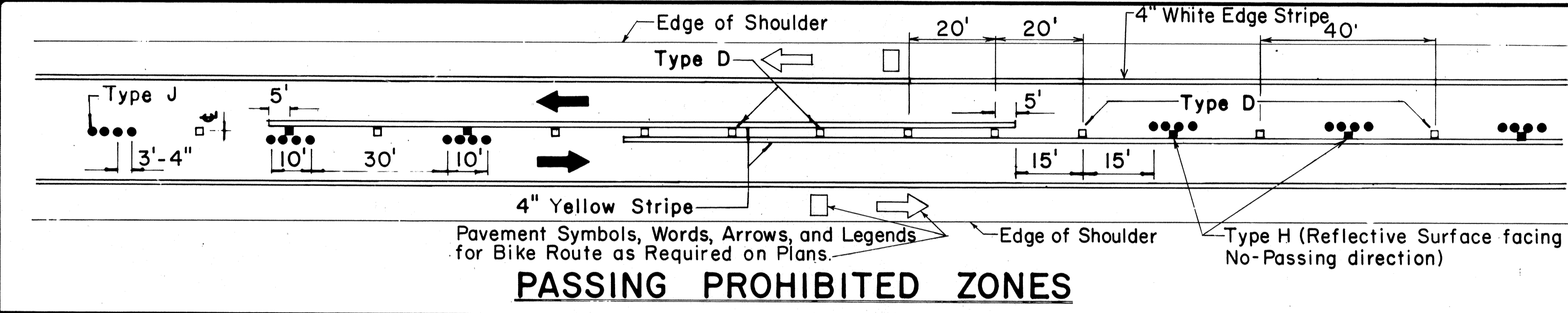
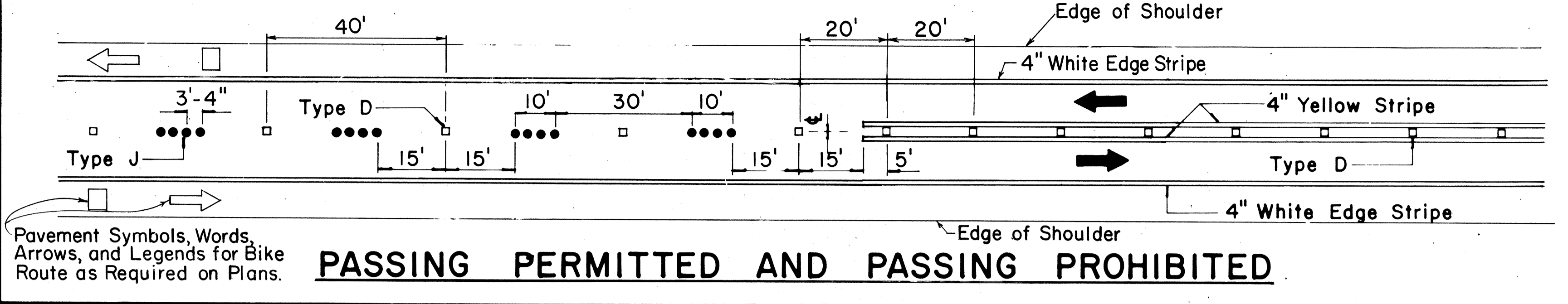
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 LAND TRANSPORTATION FACILITIES DIVISION  
**STANDARD DETAILS**  
**MILEPOSTS**

SCALE: As Shown DATE: December, 1977

SHEET NO. 12 OF 17 SHEETS DT 116

DATE: \_\_\_\_\_  
 SURVEY PLOTTED BY: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 DESIGNED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 ORIGINAL PLAN: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 No. \_\_\_\_\_

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-0750(7)	1984	28	32

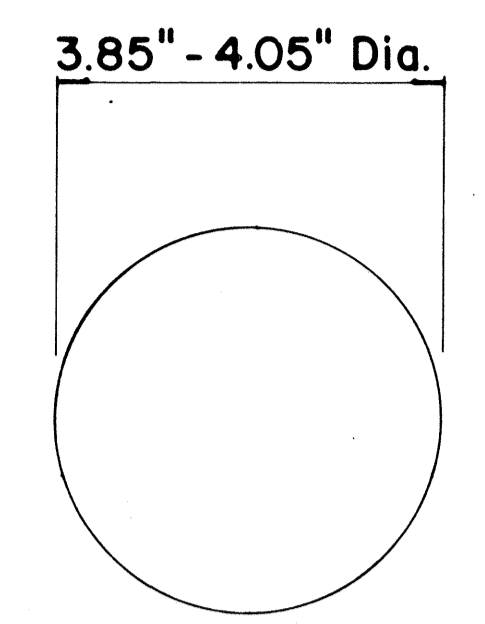


TWO - LANE

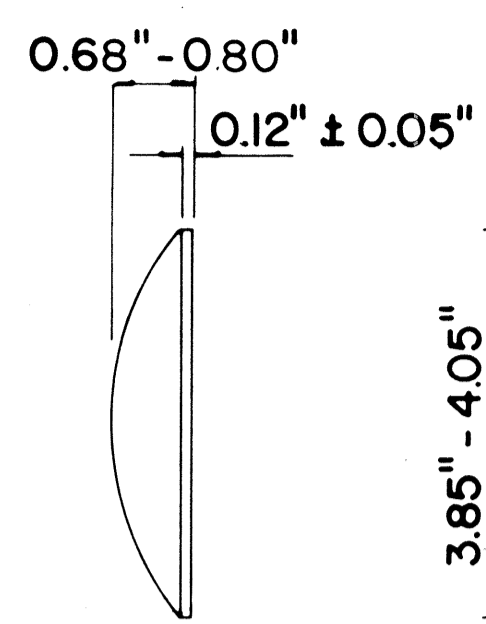
MULTI - LANE

DIVIDED HIGHWAY AND FREEWAY

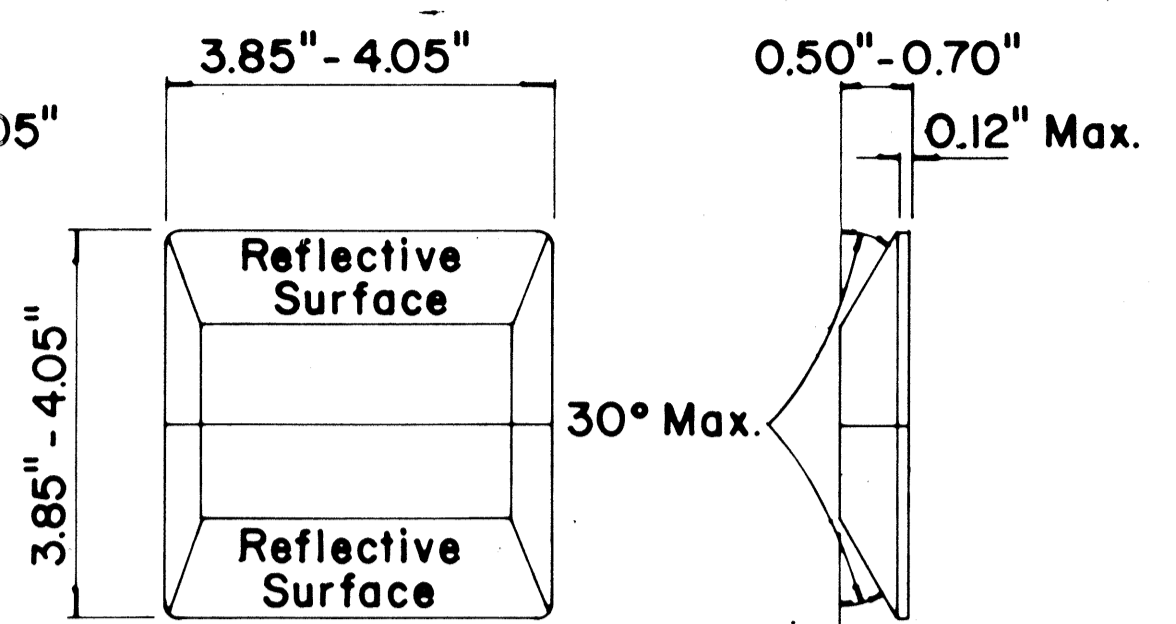
MISCELLANEOUS



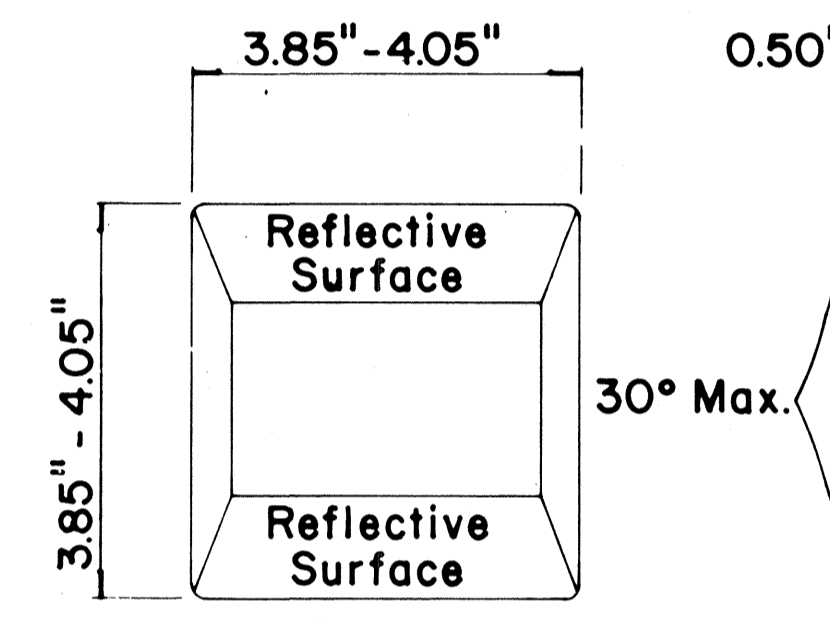
**TYPE A**  
NON-REFLECTIVE WHITE MARKER



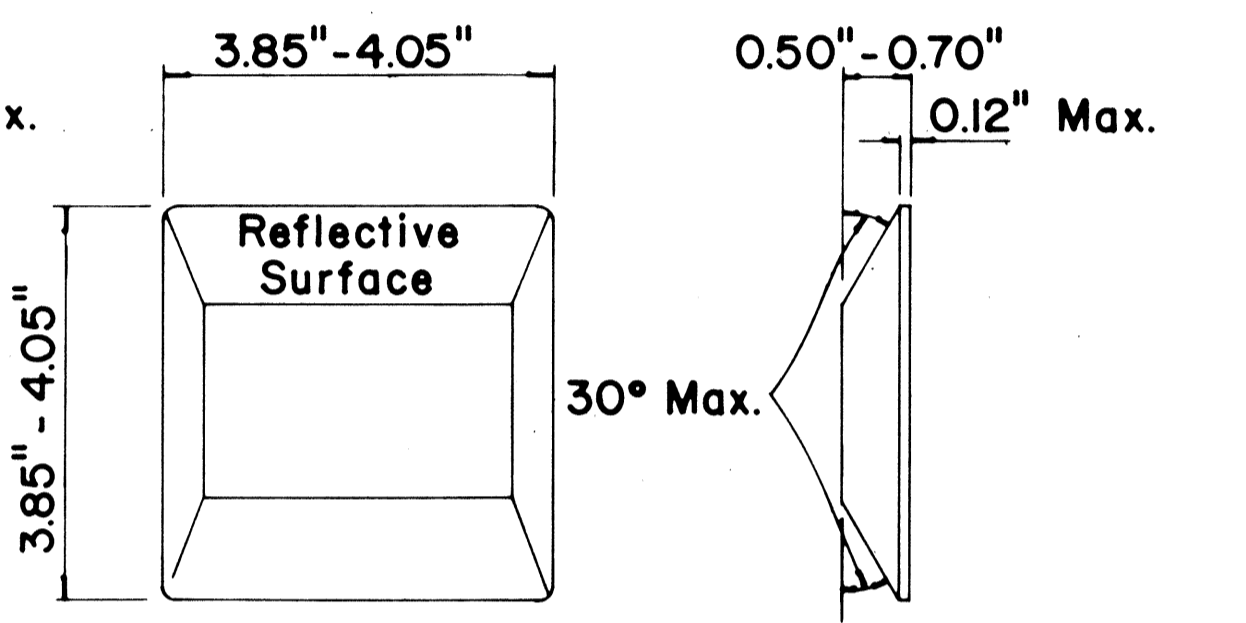
**TYPE J**  
NON-REFLECTIVE YELLOW MARKER



**TYPE C**  
RED-CLEAR REFLECTIVE MARKER



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



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

**GENERAL NOTES**

1. Pavement marking and striping shall conform to the latest "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
2. 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.
3. 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:  
*Eiichi Tanaka* 7/21/78  
 TRAFFIC ENGINEER DATE

APPROVED:  
*Herbert J. Deliahs* 1/24/78  
 ASSISTANT CHIEF, ENGINEERING DATE

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

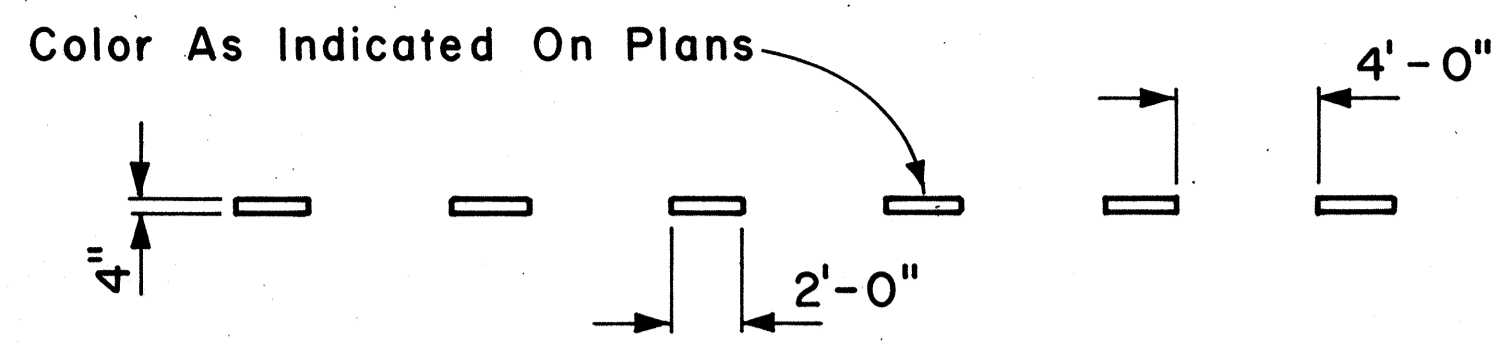
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

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

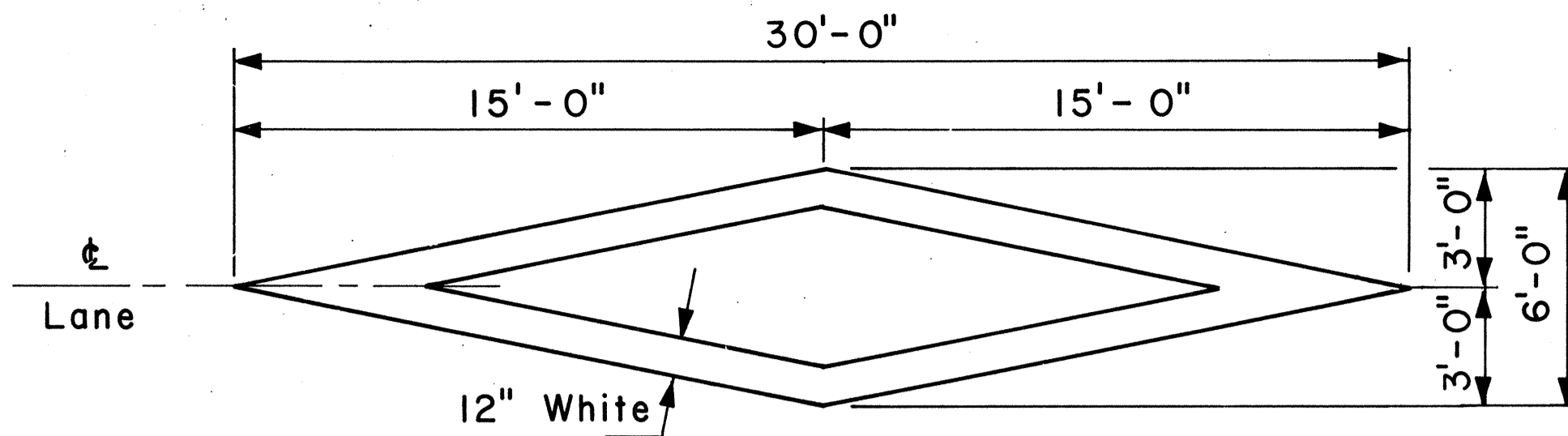
Not to Scale July 1978  
 SHEET No. 13 OF 17 SHEETS DT 300

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	R6-0750(7)	1984	20	32



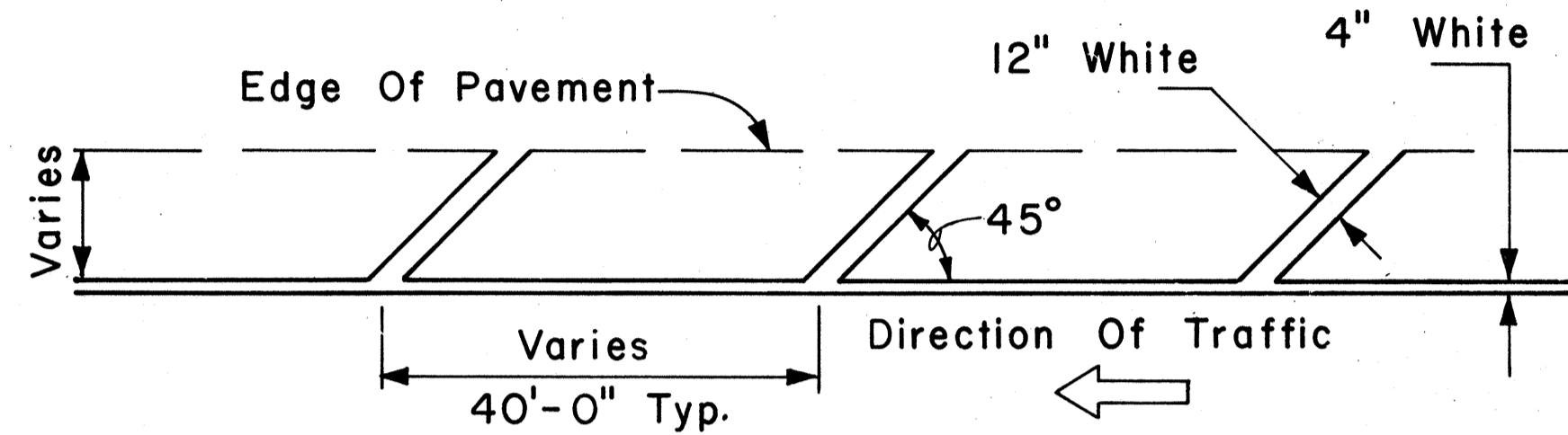
**4" GUIDE LINE**



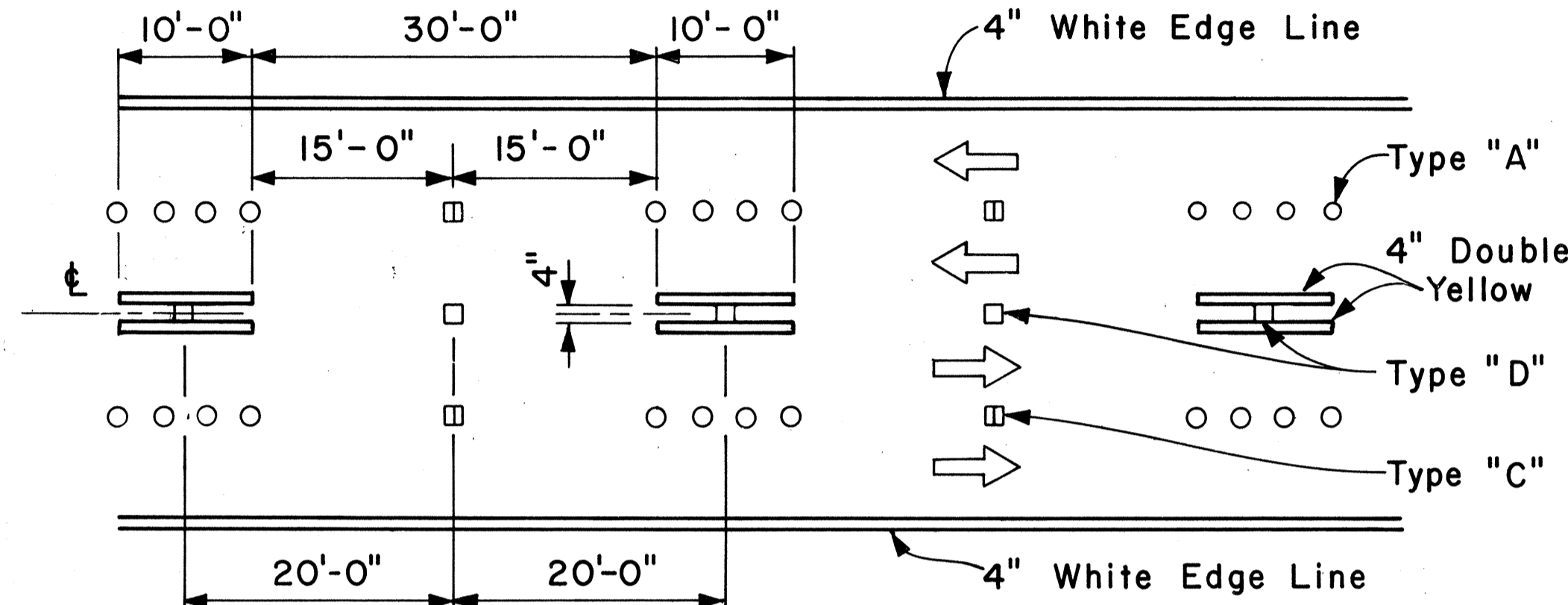
**PAVEMENT DIAMOND**

**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.

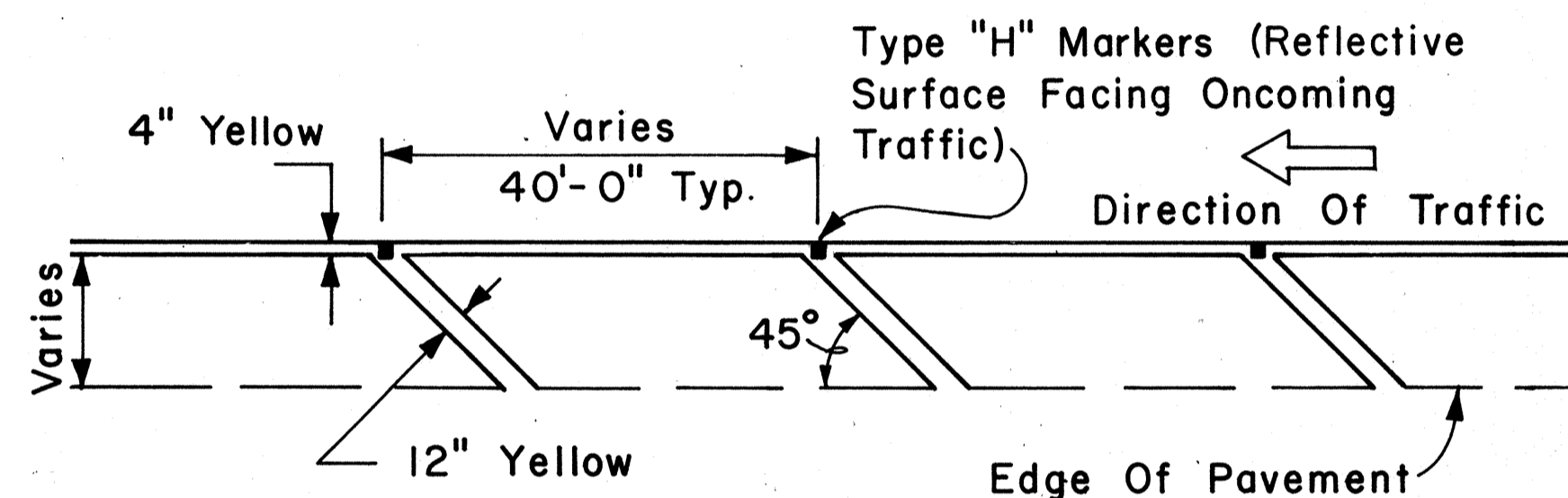


**TRANSVERSE RIGHT SHOULDER MARKING**

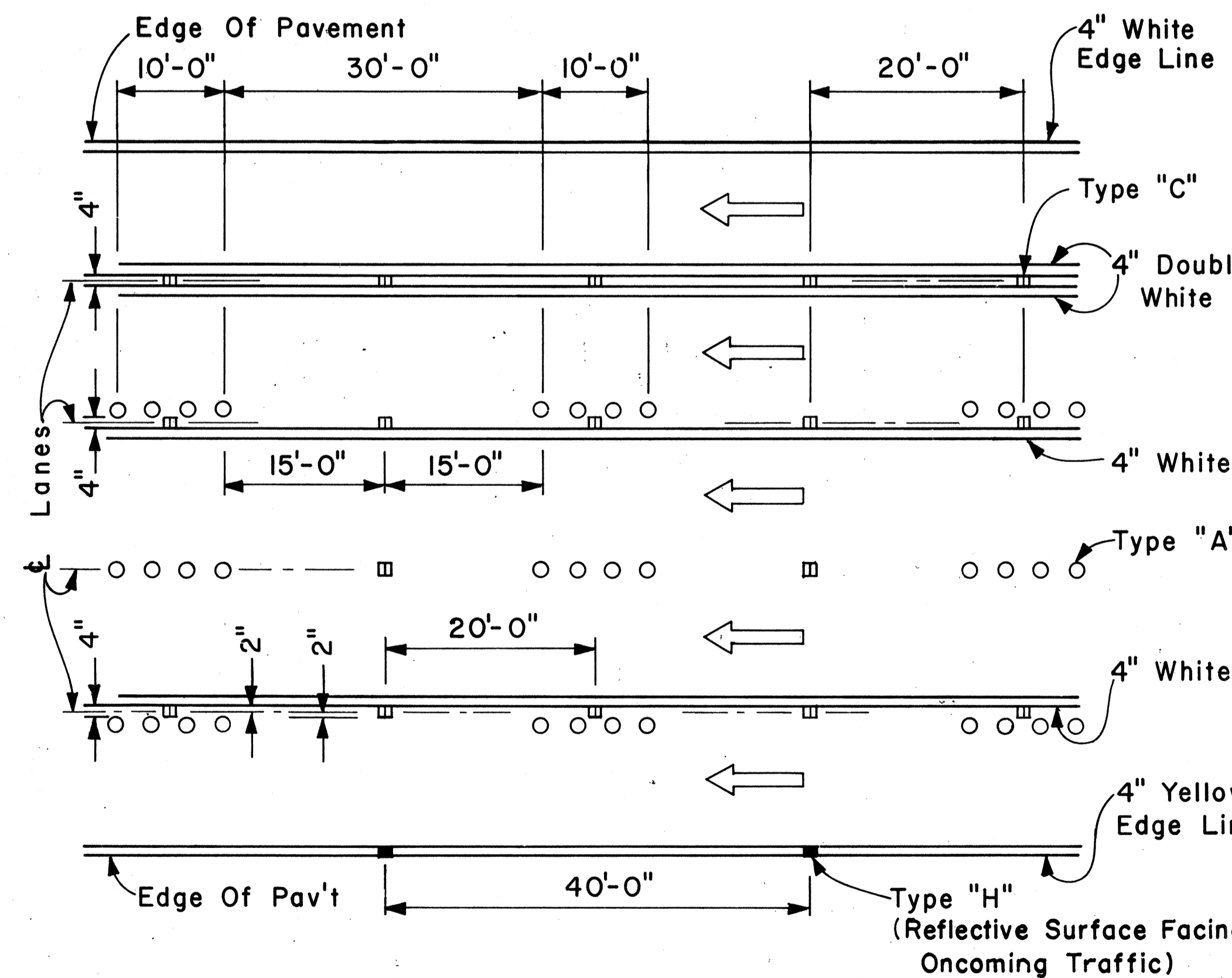


NOTE: Traffic Cone Usage Required.

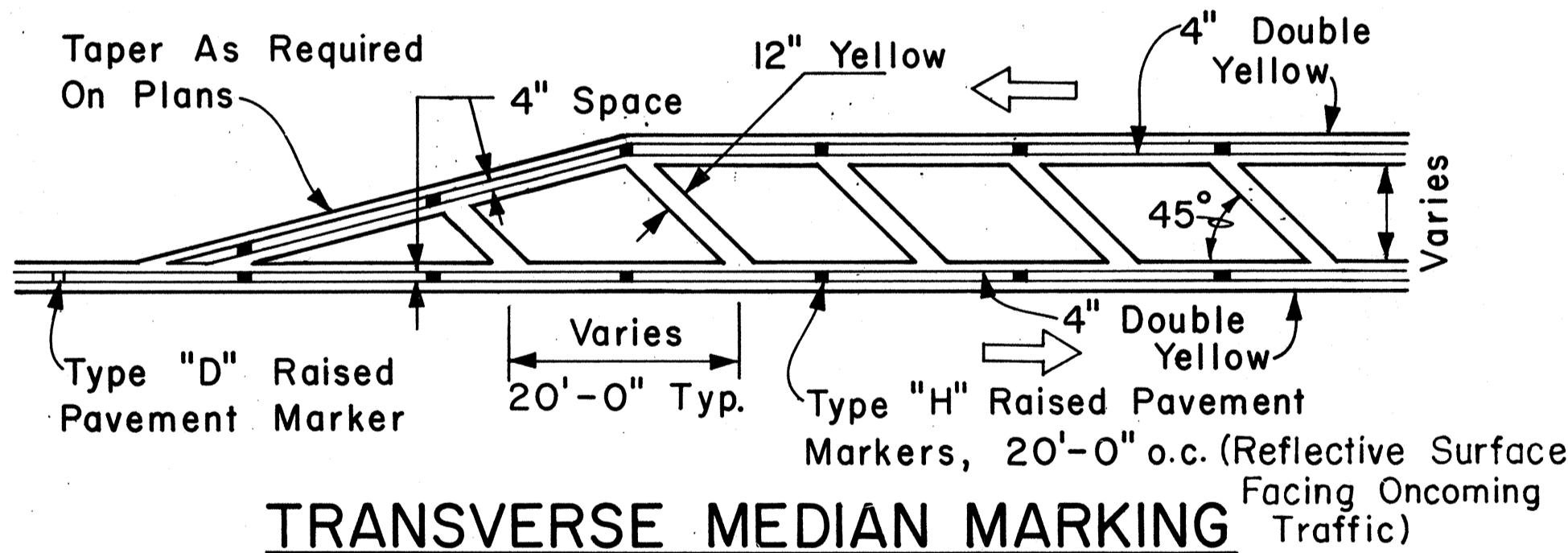
**MULTI-LANE REVERSIBLE LANES**



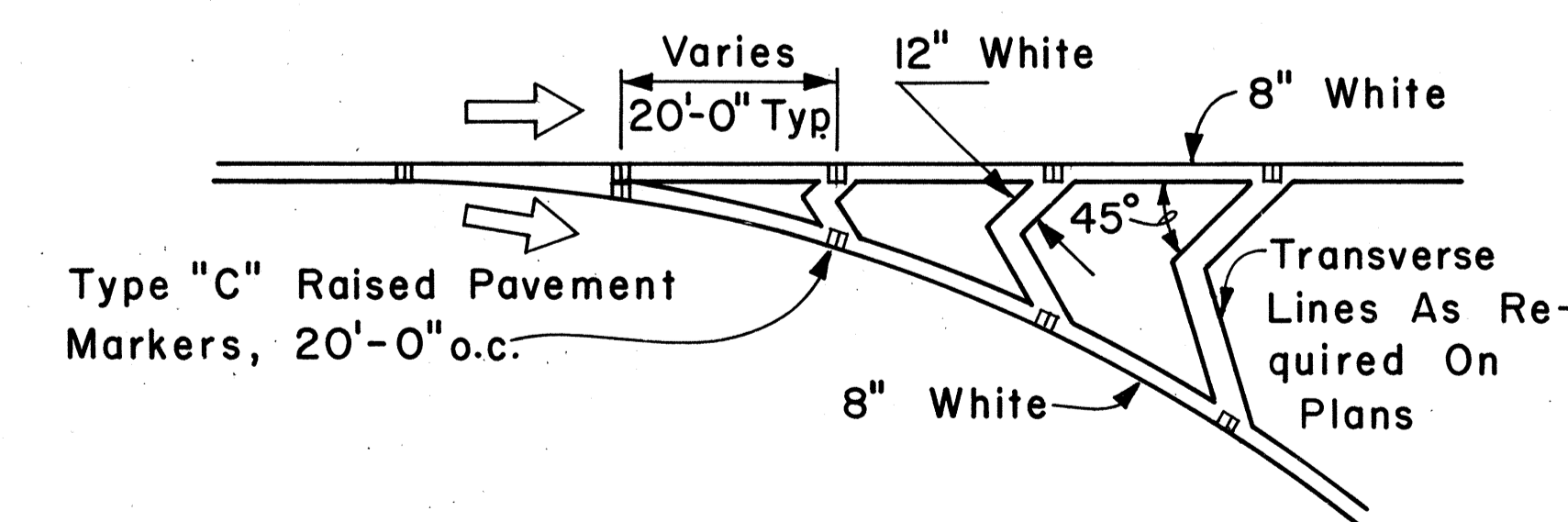
**TRANSVERSE LEFT SHOULDER MARKING**



**MULTI-LANE LANE CHANGE RESTRICTION ZONES**



**TRANSVERSE MEDIAN MARKING**



**CHANNELIZING ISLAND**

APPROVAL RECOMMENDED:  
*Eishi Tanaka* 5/2/78  
 TRAFFIC ENGINEER DATE

APPROVED:  
*Harbert S. Zakeiaku* 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. 14 OF 17 SHEETS DT 302

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	R5-0750(7)	1984	30	32

**GENERAL NOTES:**

1. Pavement Markings 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 details, see sheet DT 300.

TAPERED DECELERATION LANE

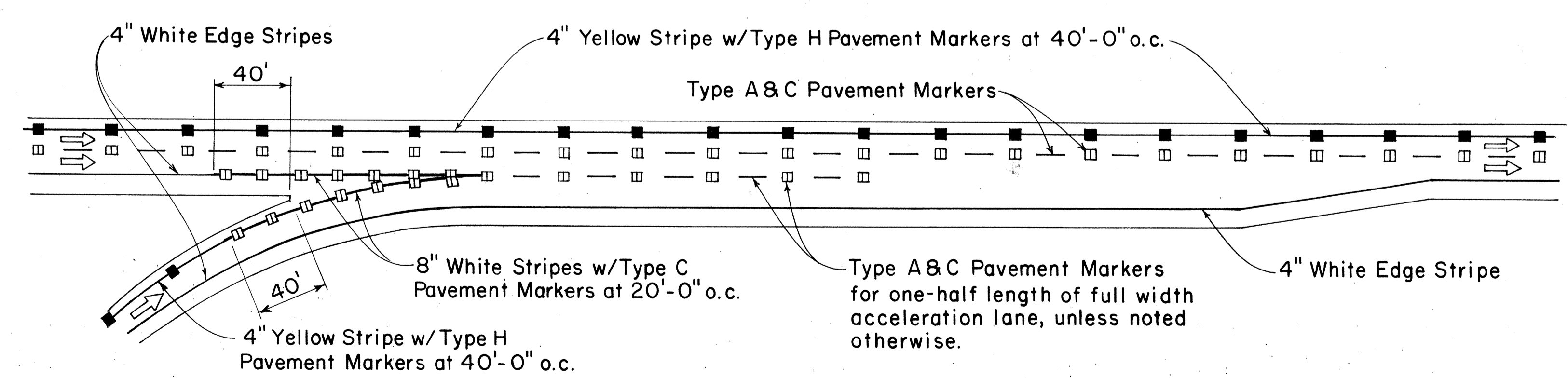
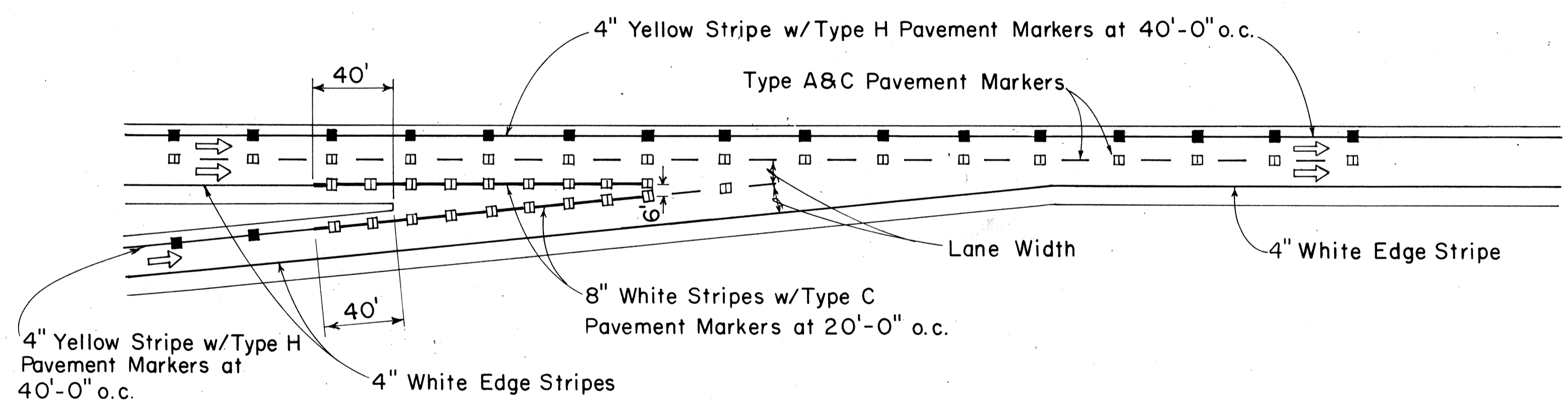
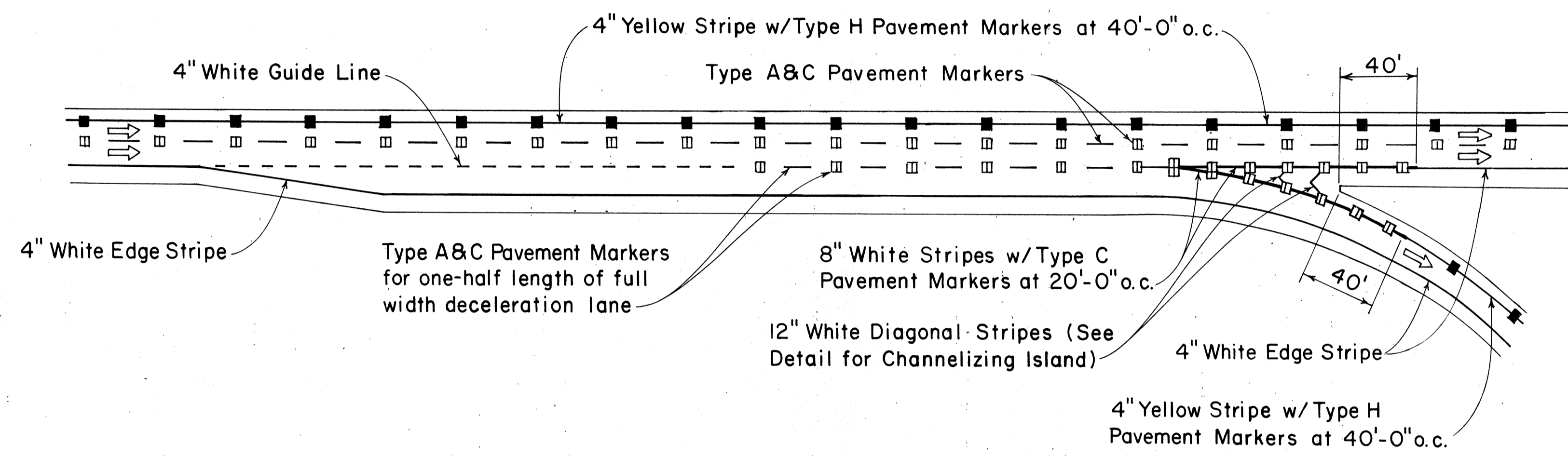
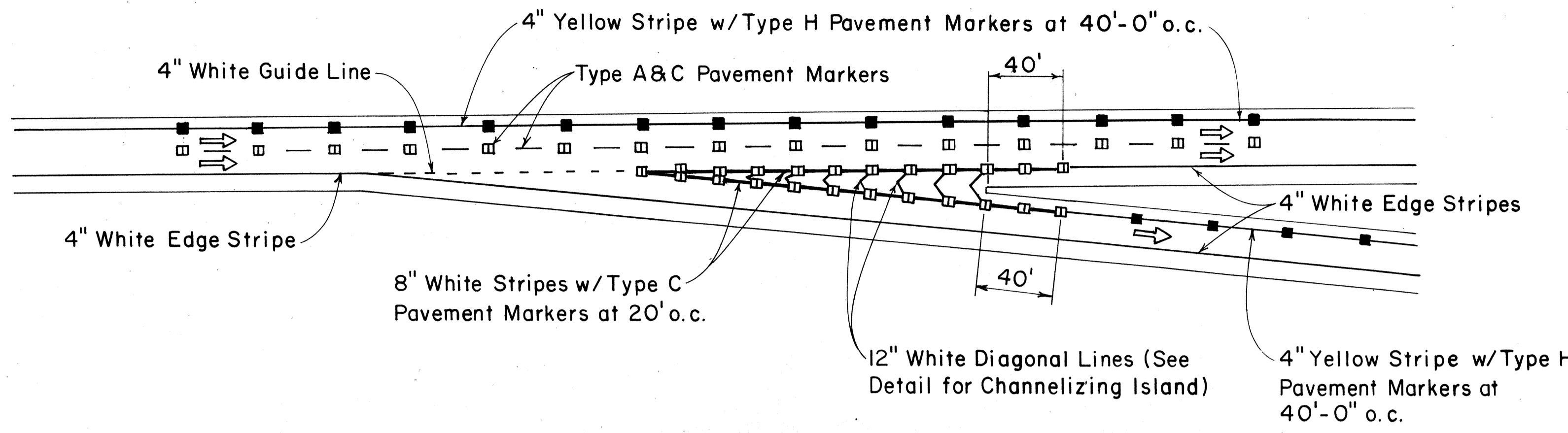
PARALLEL DECELERATION LANE

TAPERED ACCELERATION LANE

PARALLEL ACCELERATION LANE

TYPICAL ROADWAY EXIT MARKINGS

TYPICAL ROADWAY ENTRANCE MARKINGS



DATE	.....
SURVEY PLOTTED BY	.....
DRAWN BY	.....
DESIGNED BY	.....
CHECKED BY	.....
NO.	.....

APPROVAL RECOMMENDED:  
*Eishi Tanaka* 7/21/78  
 TRAFFIC ENGINEER DATE

APPROVED:  
*Robert D. Zakeishi* 7/24/78  
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

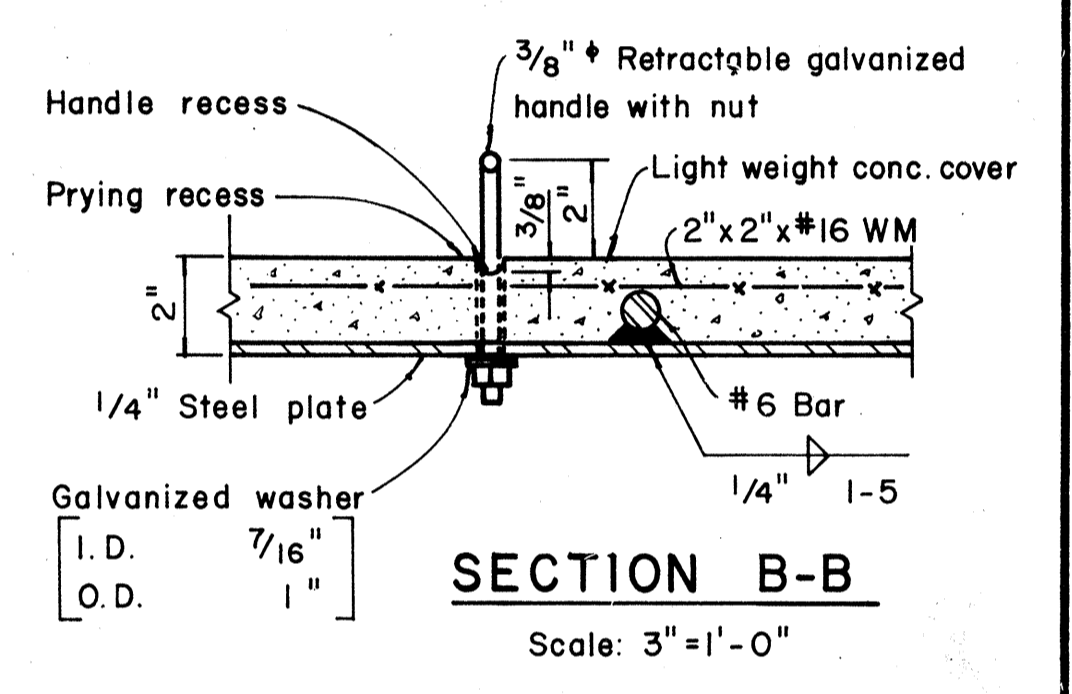
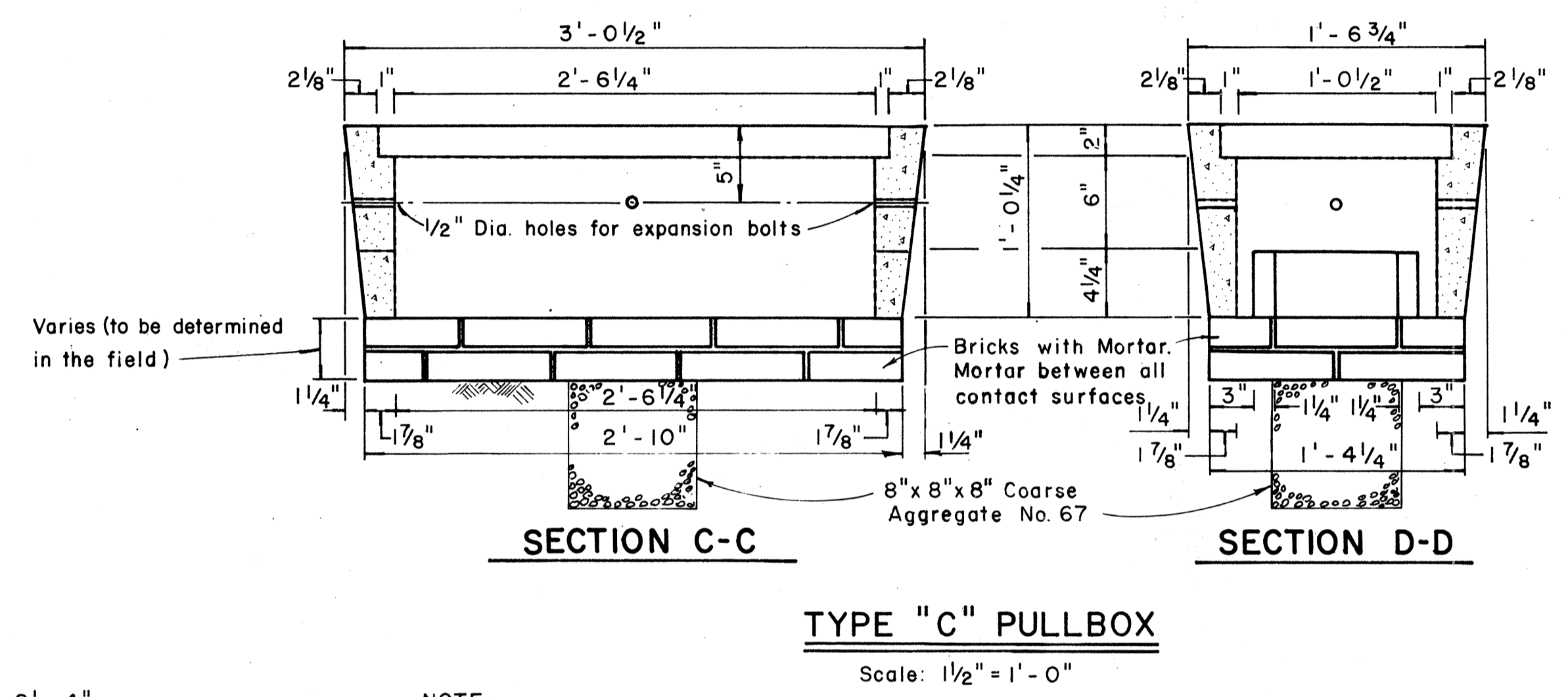
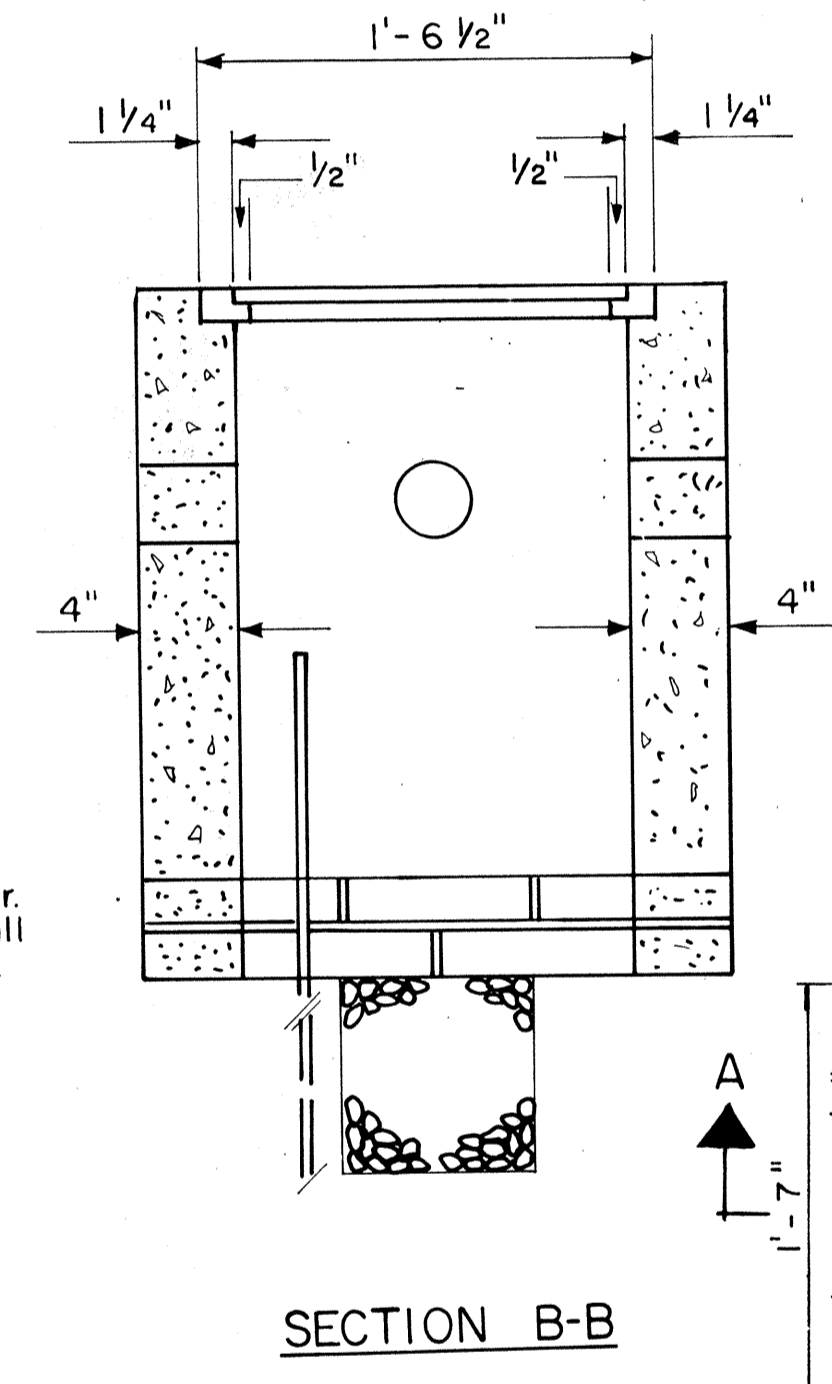
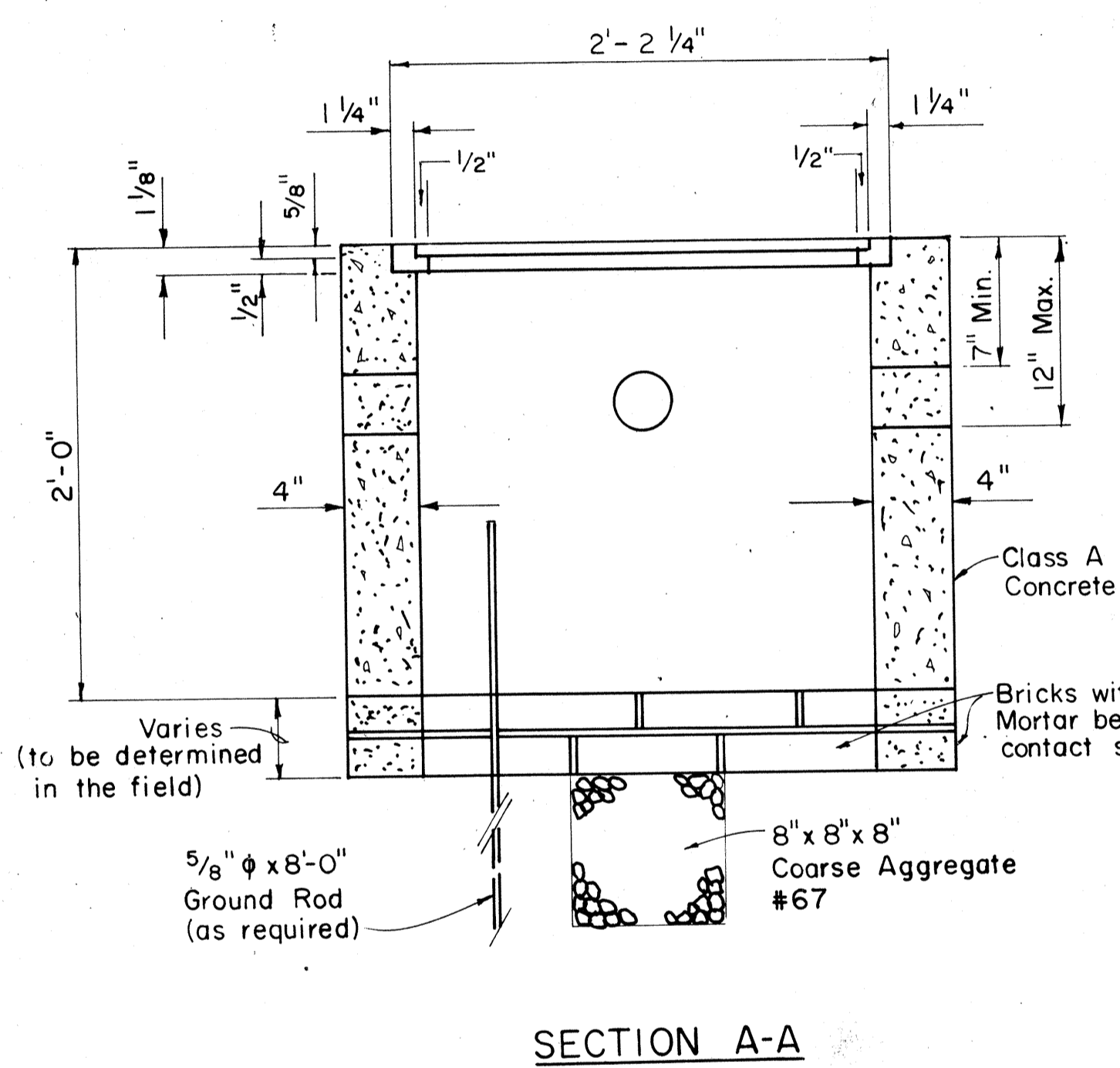
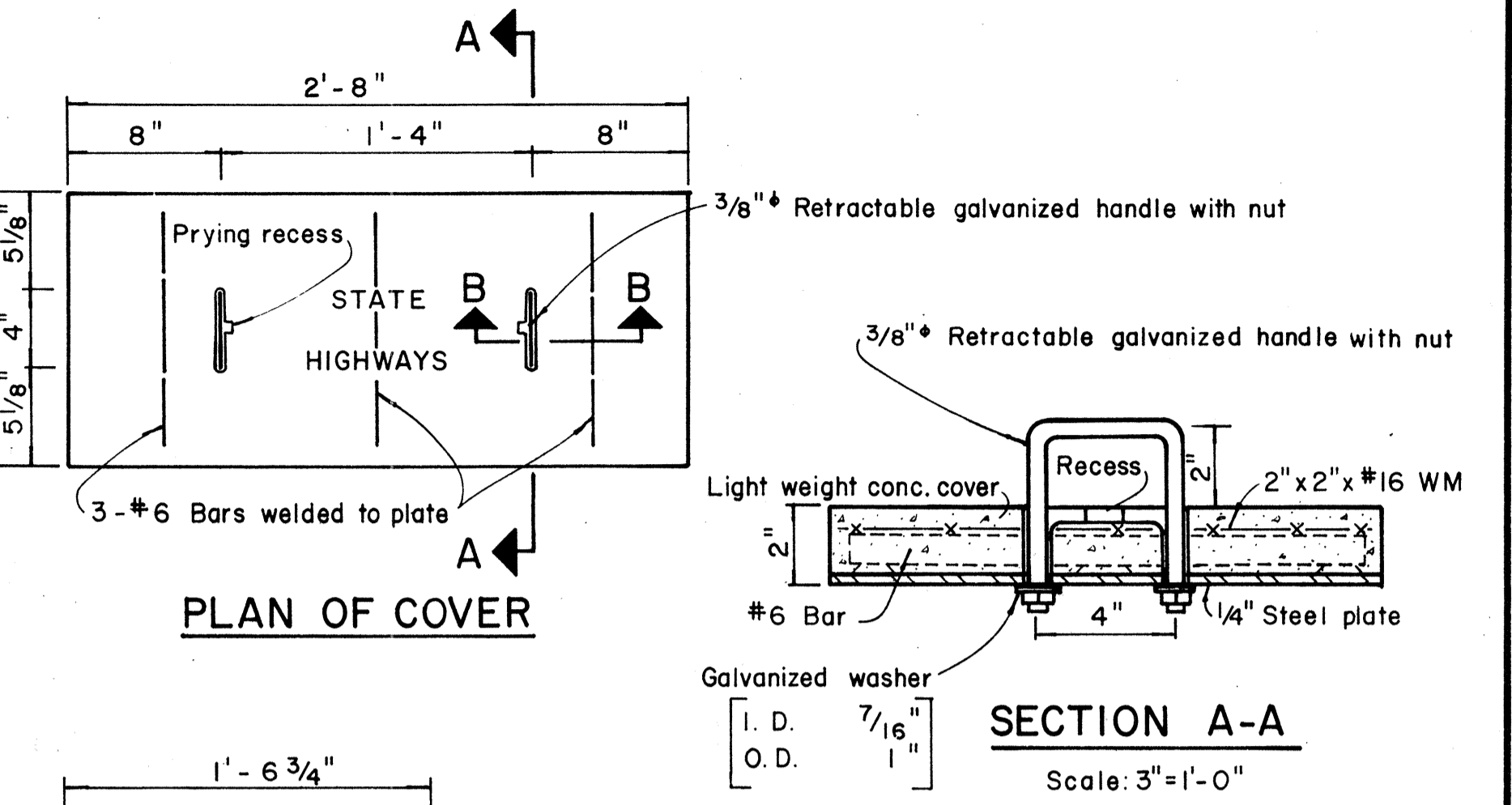
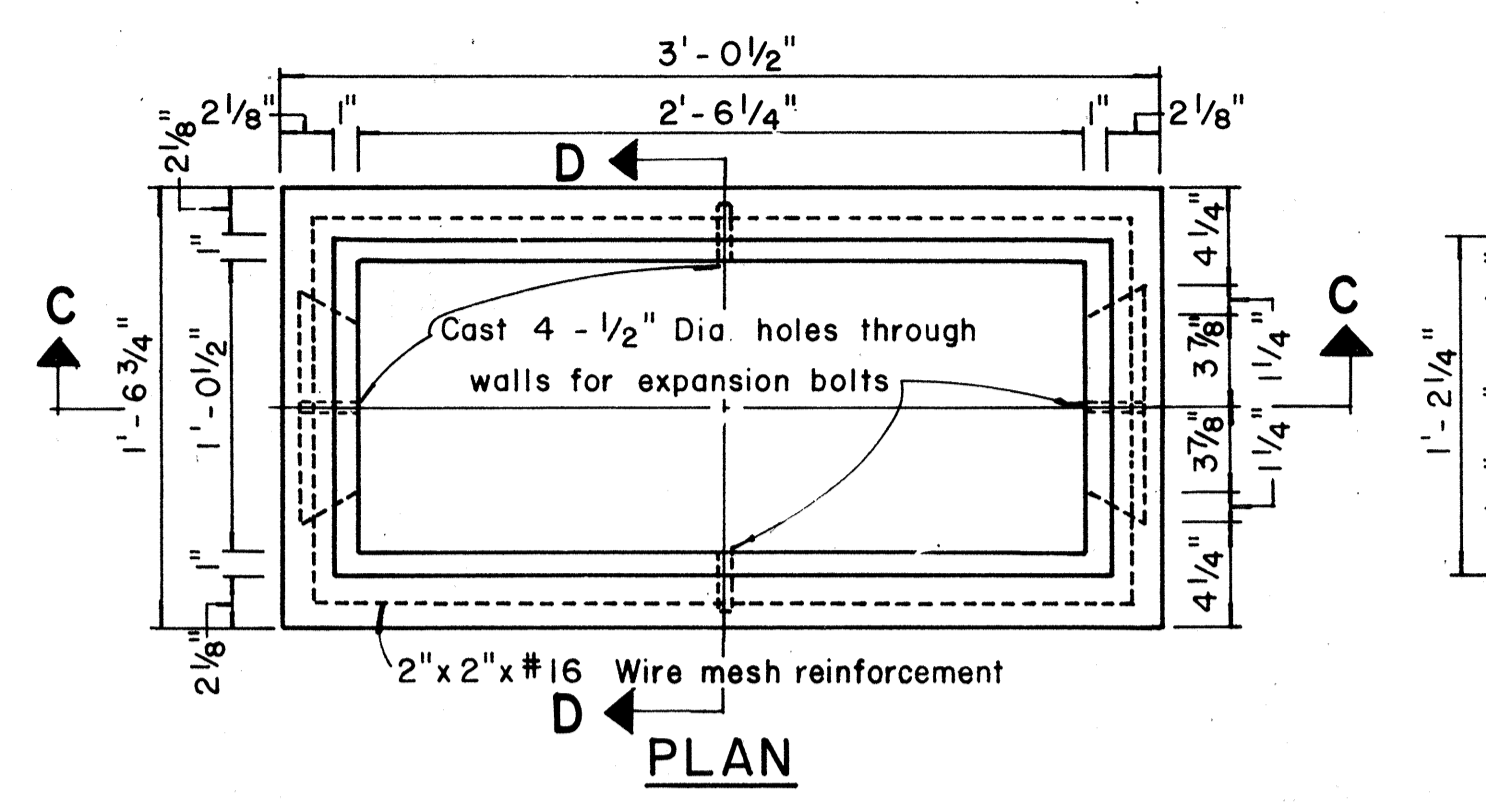
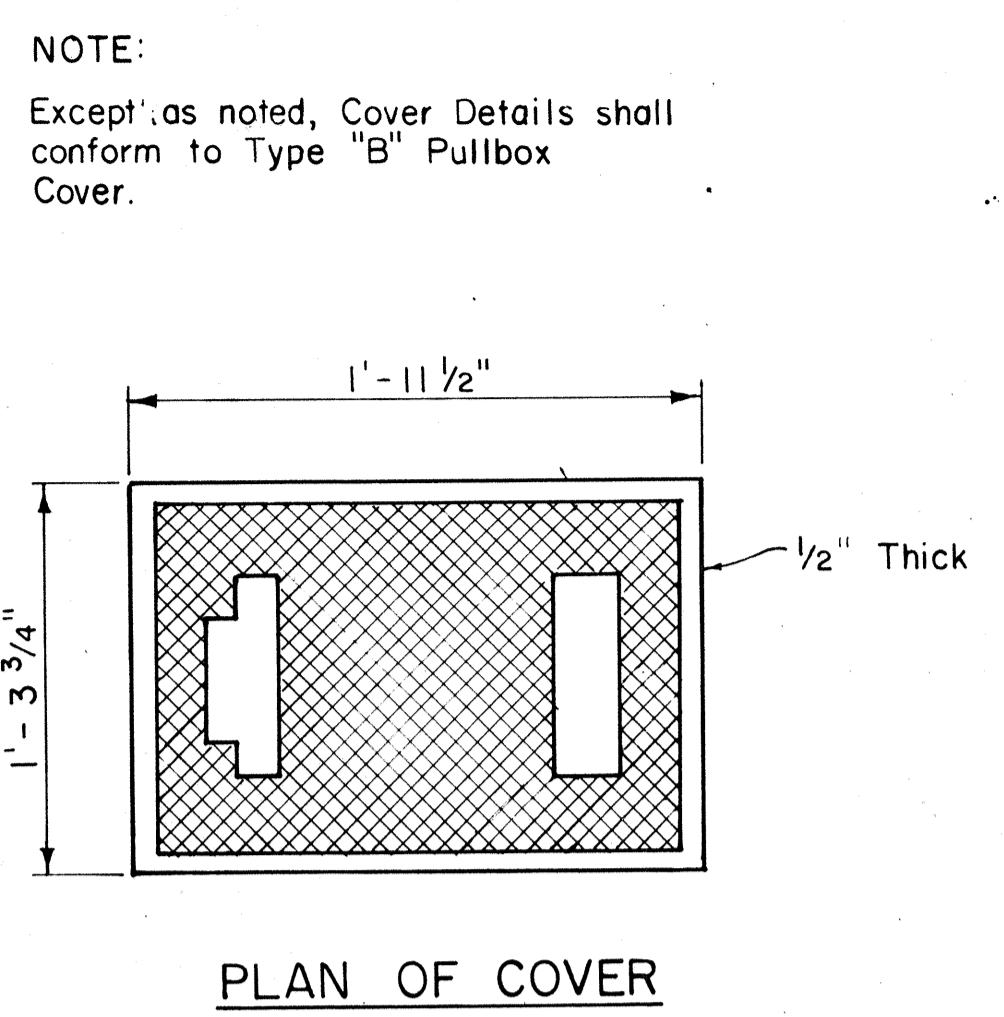
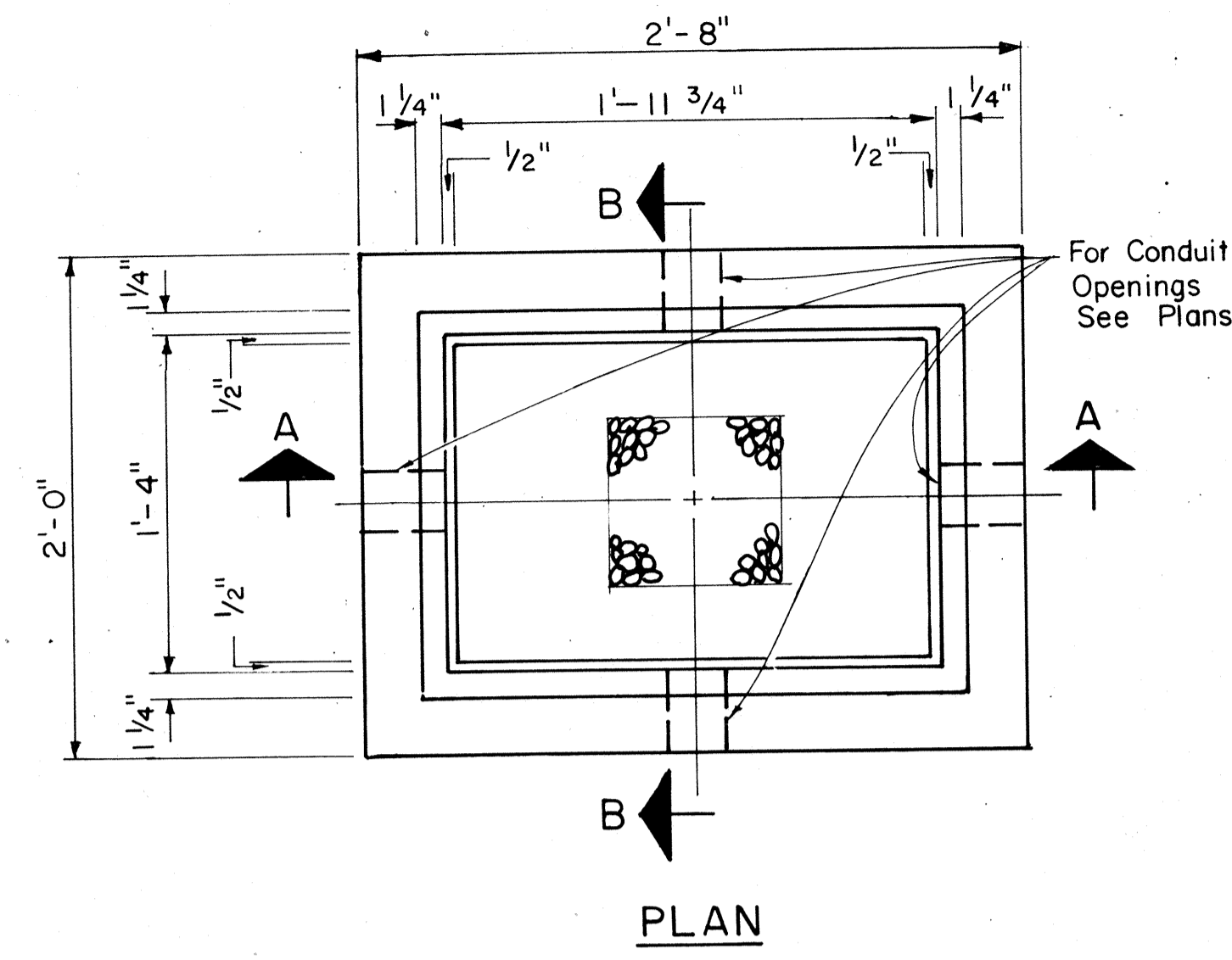
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 LAND TRANSPORTATION FACILITIES DIVISION

**STANDARD DETAILS**  
**MISCELLANEOUS**  
**PAVEMENT MARKINGS**

Not to Scale July 1978  
 SHEET NO. 15 OF 17 SHEETS DT 304

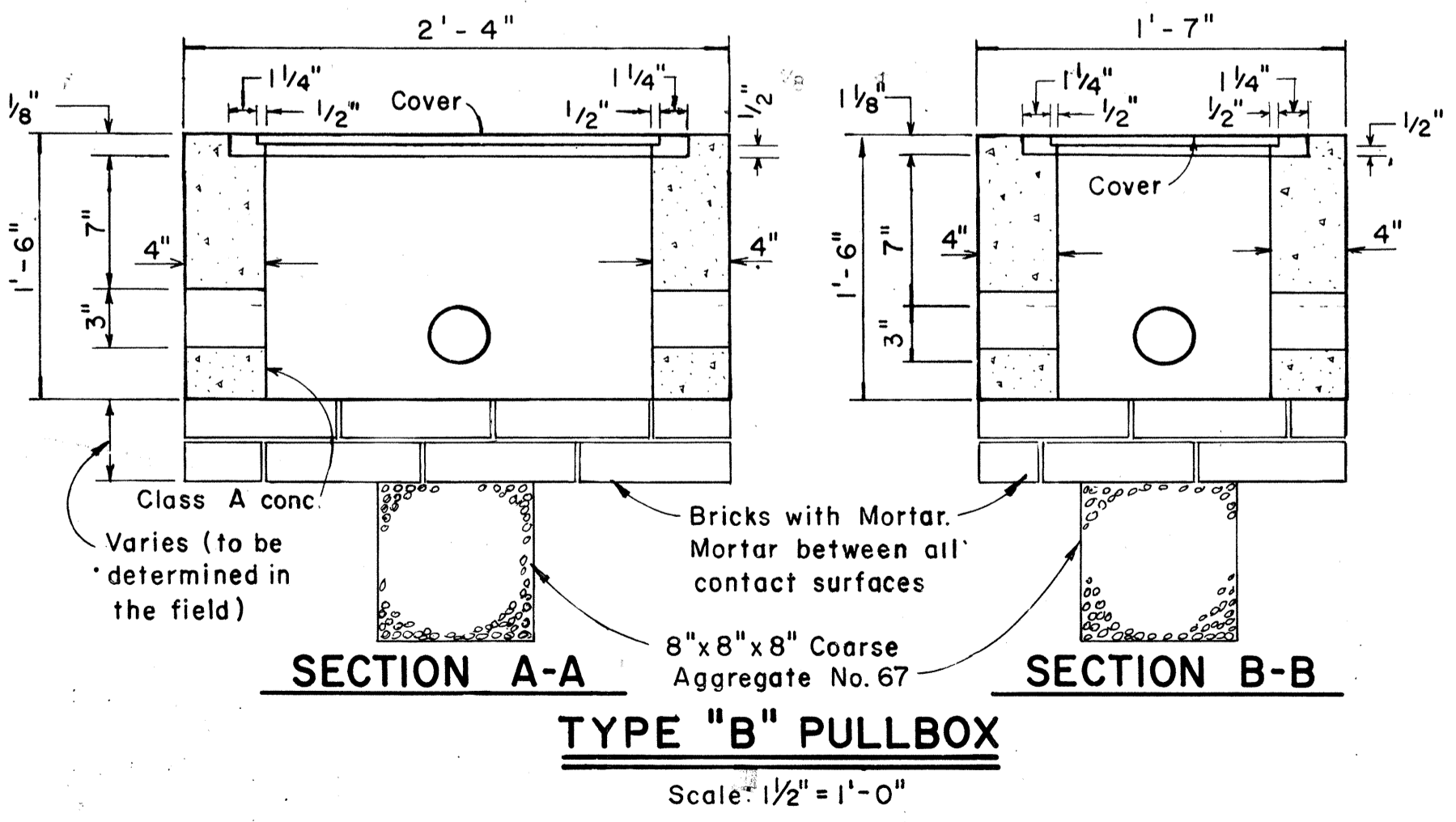
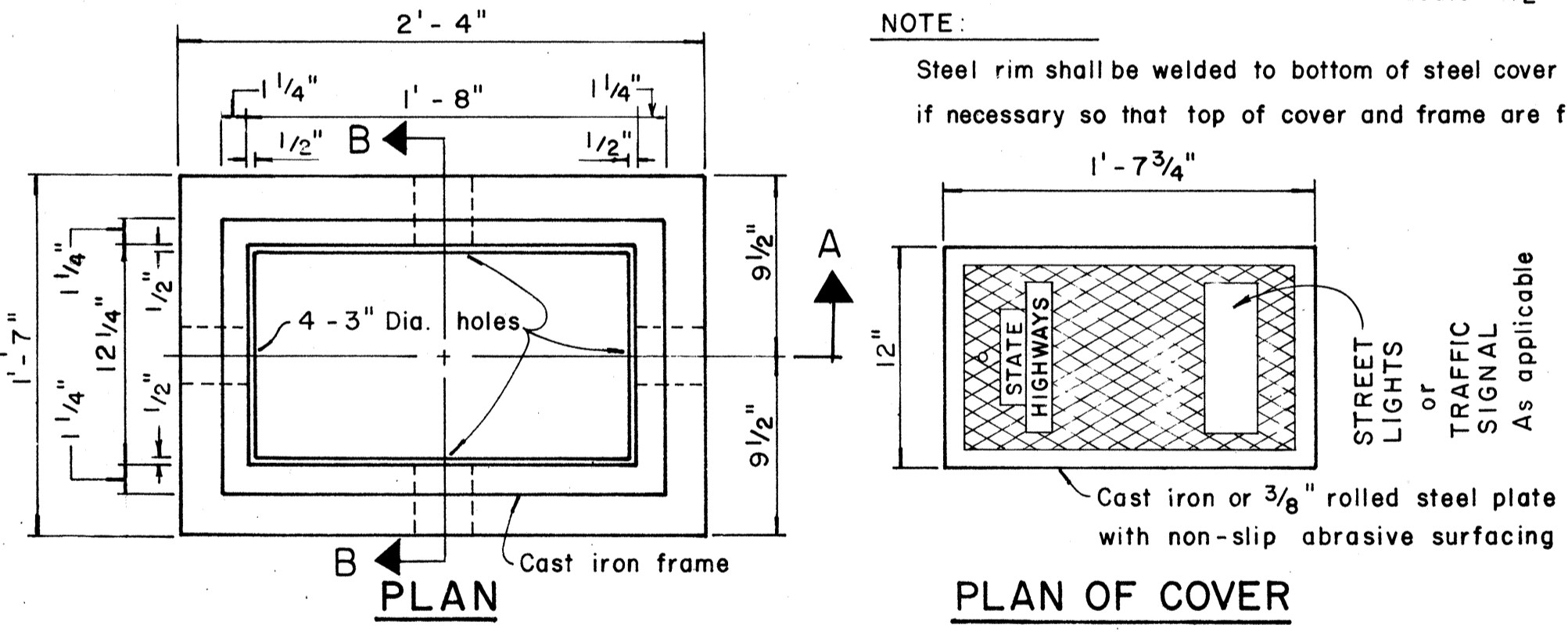


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	RS-0750(7)	1984	32	32



**TYPE "A" PULLBOX**  
Scale: 1/2" = 1'-0"

**TYPE "C" PULLBOX**  
Scale: 1/2" = 1'-0"



**TYPE "B" PULLBOX**  
Scale: 1/2" = 1'-0"

APPROVAL RECOMMENDED:  
*[Signature]* 12/29/69  
TRAFFIC ENGINEER DATE

APPROVED:  
*[Signature]* 12-30-69  
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Revised Type B & C Pullbox details	H.T.	3-5-70
2	Revised Type "A" Pullbox & Added Modified Cover.	H.T.	1-31-80
3	Revised Type B & C Pullbox details.	[Signature]	2-1-83

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STANDARD DETAILS**  
**PULLBOXES**

Scale as noted Date

SHEET No. 17 OF 17 SHEETS DT 401

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

**MODIFIED COVER DETAIL**  
Not to Scale