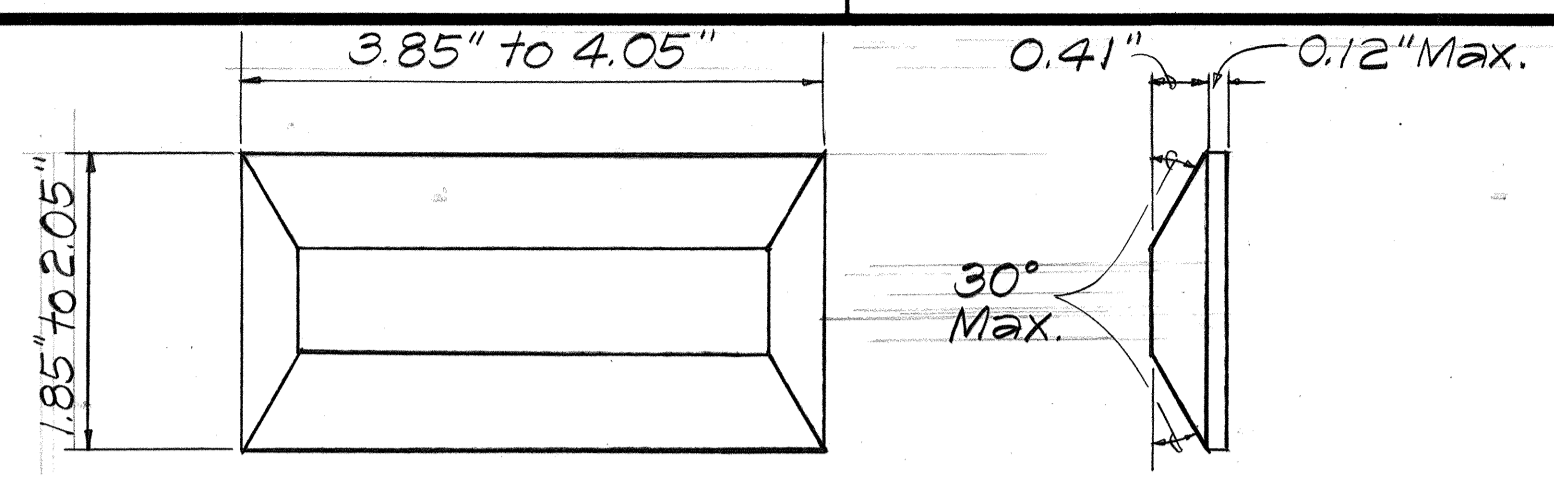
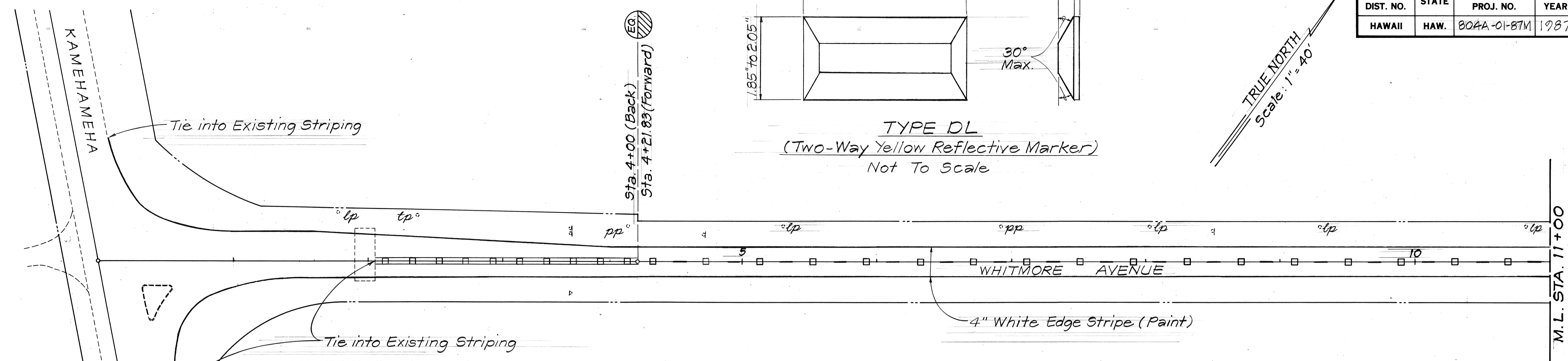


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	11	30



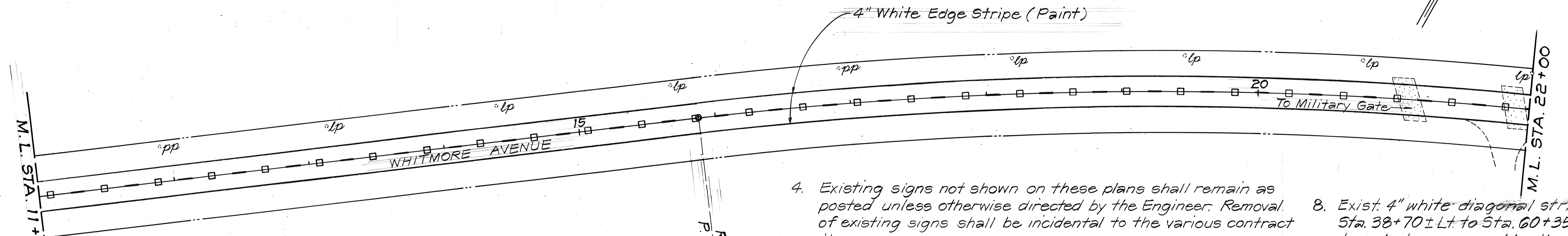
TYPE DL
(Two-Way Yellow Reflective Marker)
Not To Scale

TRUE NORTH
Scale: 1" = 40'



LEGEND

- — □ 4 Each Type "J" Raised Pavement Markers with Type "DL" Raised Pavement Markers @ 40'-0" o.c.
- ▬▬▬▬ 4" Double Solid Yellow Stripes (Tape) with Type "DL" Raised Pavement Markers @ 20'-0" o.c.
- ⊙ Crosswalk (Tape) & Stop Line (Tape). All Stop Lines shall be 10'-0" from Crosswalk unless otherwise noted. The circled number indicates the number of lanes for payment.



GENERAL NOTES

1. Locations of all new Pavement Markings shall be staked out by the Contractor for approval by the Engineer prior to installation.
2. 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.
3. Raised Pavement Markings shall not be placed within crosswalks.

4. Existing signs not shown on these plans shall remain as posted unless otherwise directed by the Engineer. Removal of existing signs shall be incidental to the various contract items.
5. Final locations of all signs shall be approved by the Engineer.
6. Details of Type D Markers on Plan Sht. No. 25 shall be deleted and replaced with details of Type DL Markers as shown on this sheet. All references to Type D Markers in the plans shall mean Type DL Markers.
7. 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.
8. Exist 4" white diagonal stripes (paint) from Sta. 38+70 ± Lt. to Sta. 60+35 ± Lt. shall be restored when covered by the Contractor during his paving operation. This work will not be paid for separately but shall be considered incidental to Asphalt Concrete Pav't, Mix No. V.

R = 2864.79'
P.C. Sta. 15+87.95

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NO.	_____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING & PAVEMENT MARKINGS

WHITMORE AVE. RESURFACING AND
SHOULDER IMPROVEMENTS

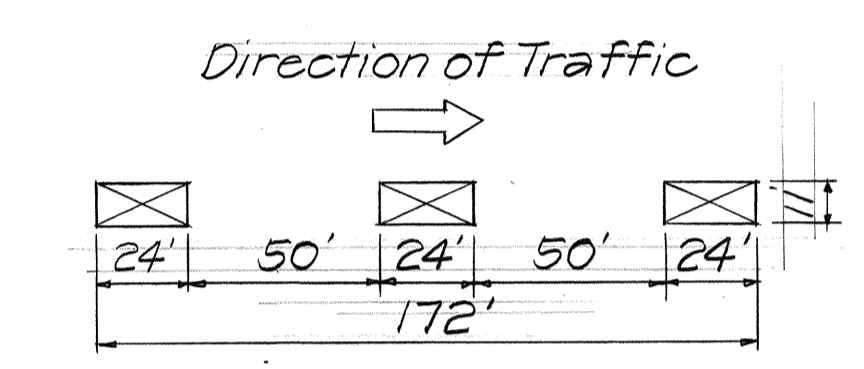
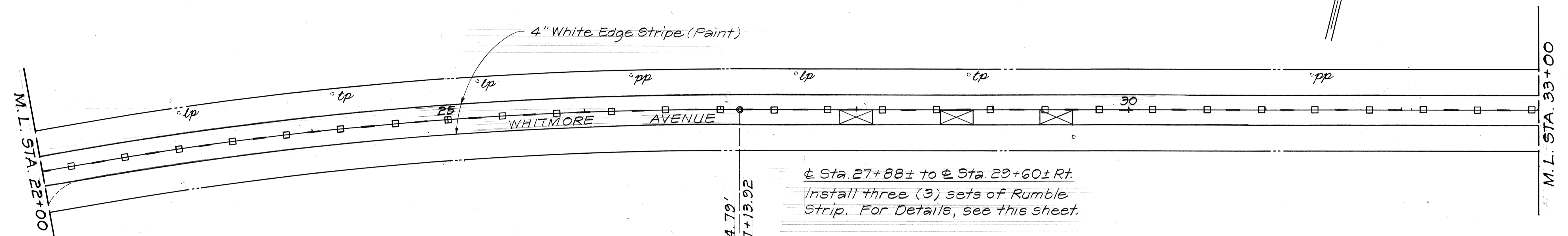
Kamehameha Hwy. to Military Gate
Project No. 804A-01-87M
Scale: As Shown Date: April, 1986

SHEET NO. 1 OF 5 SHEETS

D-4-2

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	12	30

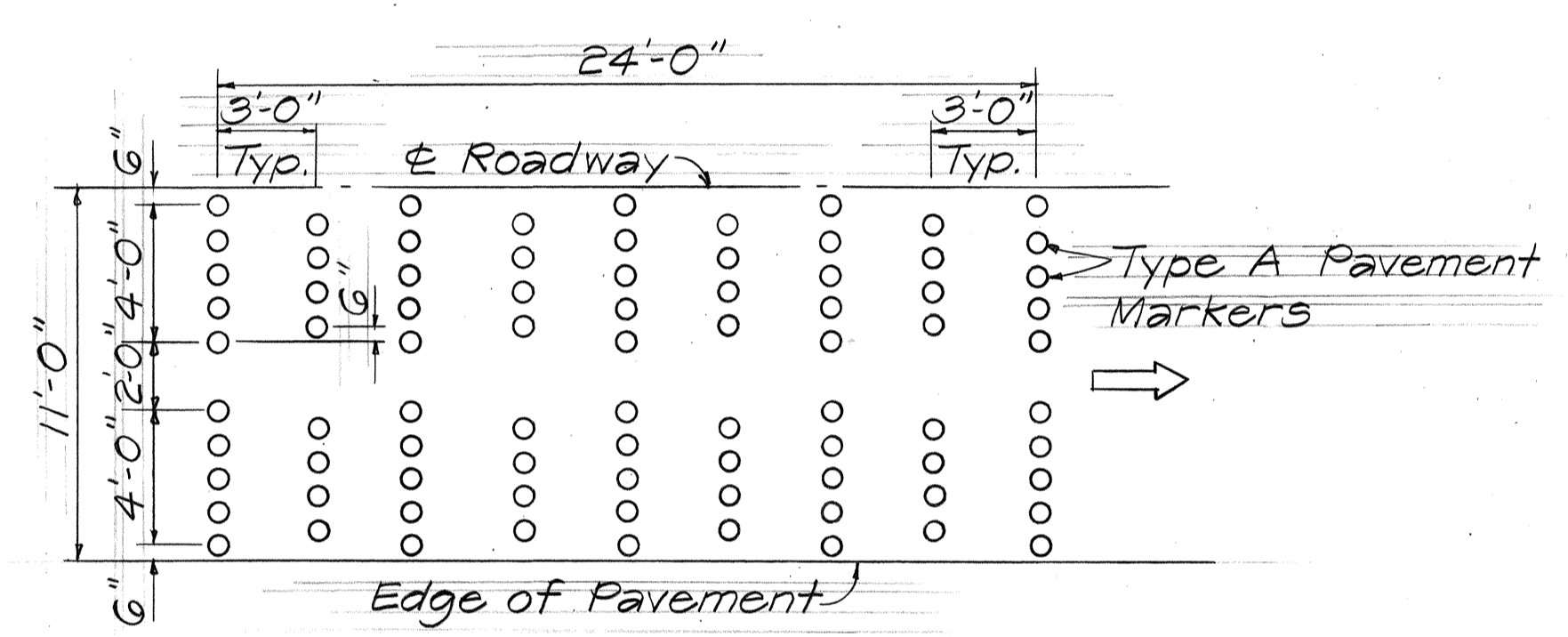
TRUE NORTH
Scale: 1" = 40'



RUMBLE STRIP - LAYOUT
Not To Scale

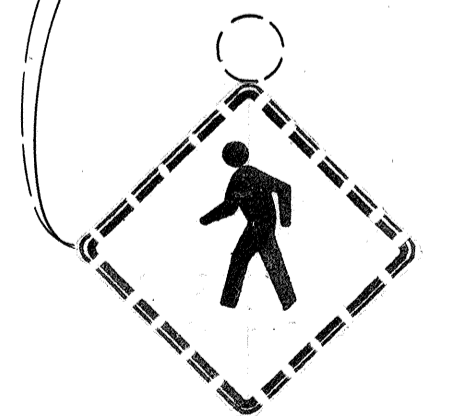
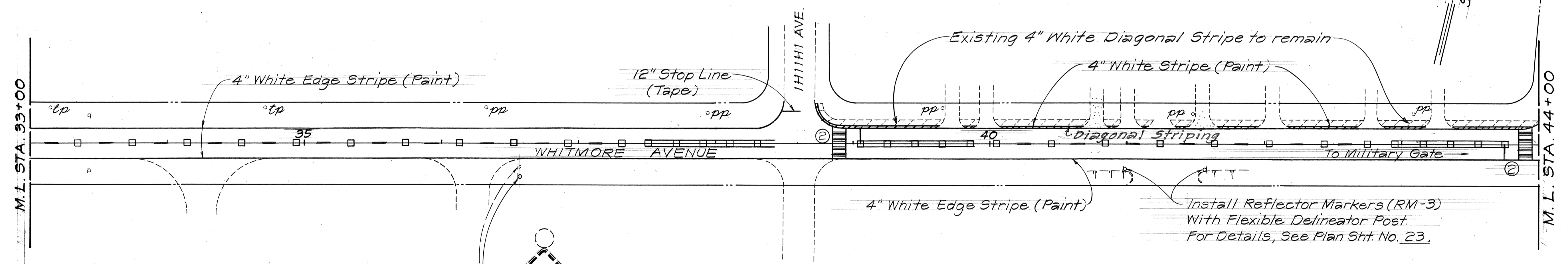
NOTE: Rumble Strip will be paid under Item No. 629.2010 - Type A Pavement Markers

± Sta. 27+88± to ± Sta. 29+60± Rt.
Install three (3) sets of Rumble Strip. For Details, see this sheet.



RUMBLE STRIP - DETAIL
Not To Scale

TRUE NORTH
Scale: 1" = 40'



Relocate Existing Beacon Flasher and Sign with Post.

NOTE: Use Type I Signal Standard Footing for relocated warning light post or as otherwise approved. See Sht. DT-400.

Install Reflector Markers (RM-3) With Flexible Delineator Post. For Details, See Plan Sht. No. 23.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

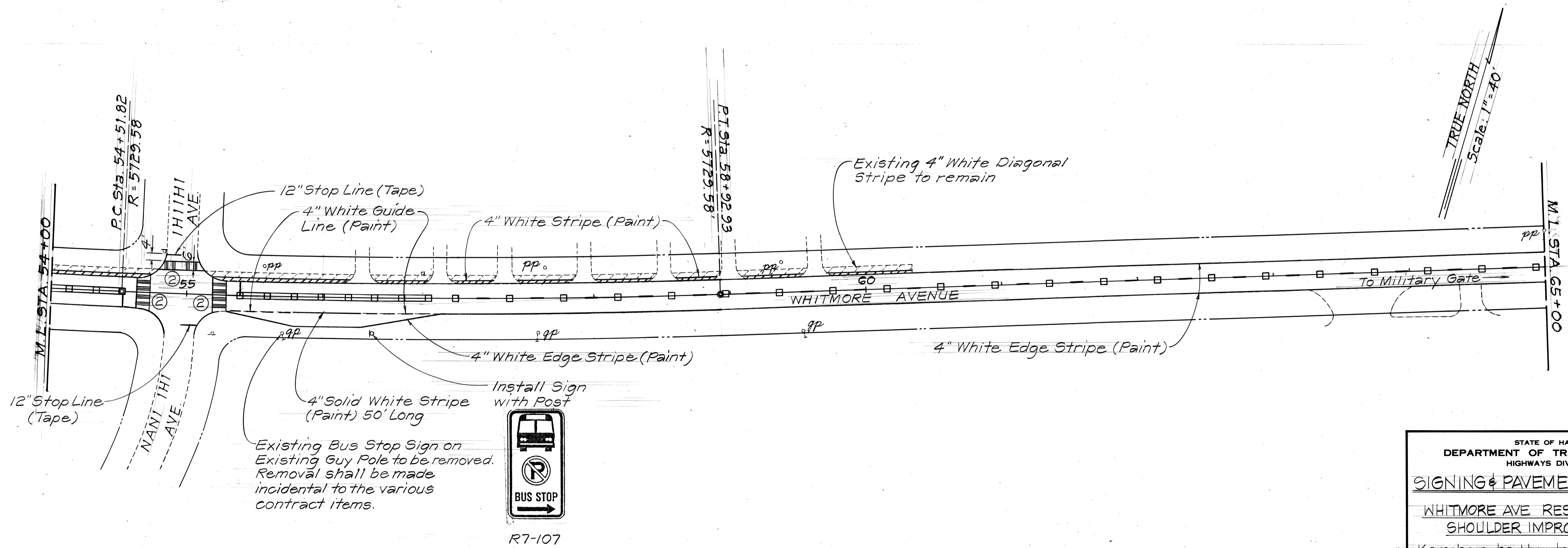
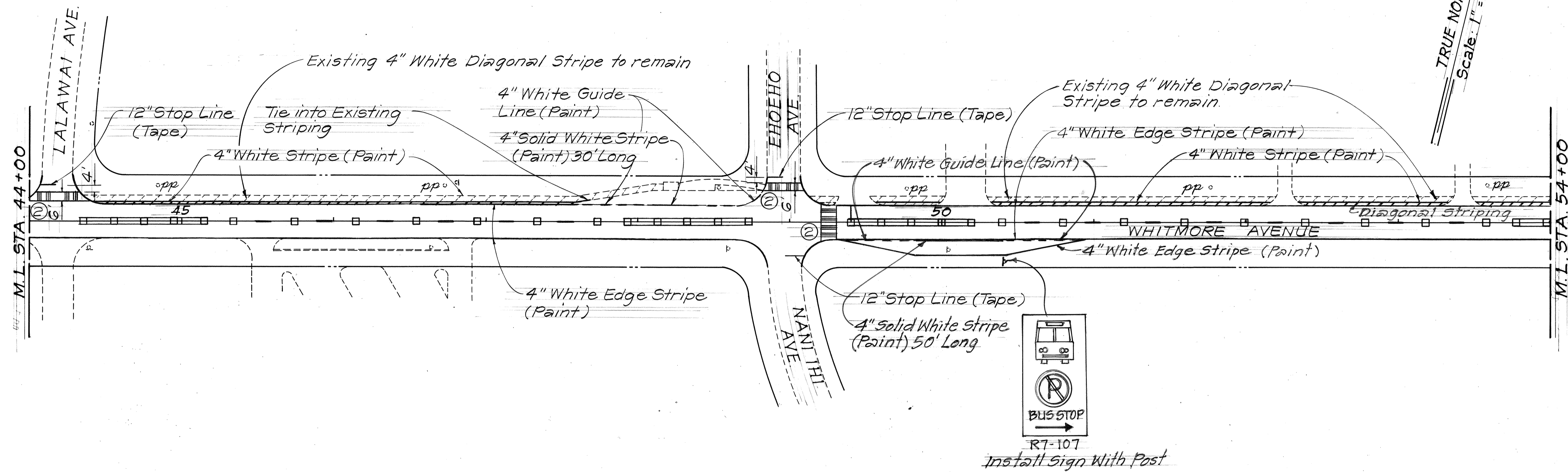
SIGNING & PAVEMENT MARKINGS

WHITMORE AVE. RESURFACING AND SHOULDER IMPROVEMENTS

Kamehameha Hwy. to Military Gate
Project No. 804A-01-87M
Scale: As Shown Date: April, 1986

SHEET No. 2 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	13	30



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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING & PAVEMENT MARKINGS

WHITMORE AVE. RESURFACING AND
SHOULDER IMPROVEMENTS

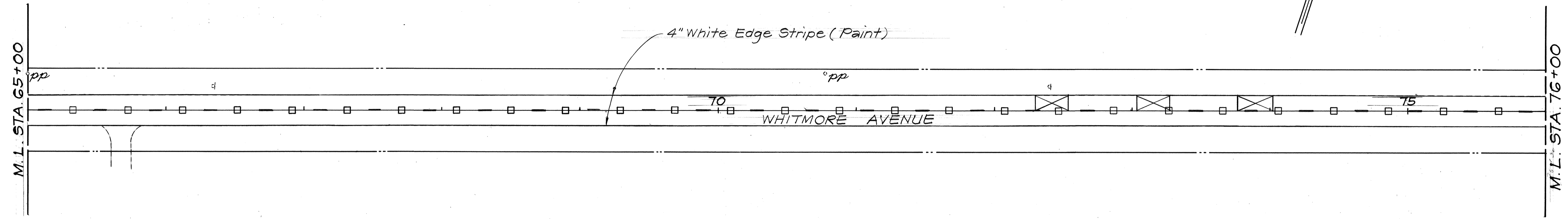
Kamehameha Hwy. to Military Gate
Project No. 804A-01-87M
Scale: As Shown Date: April, 1986

SHEET No. 3 OF 5 SHEETS

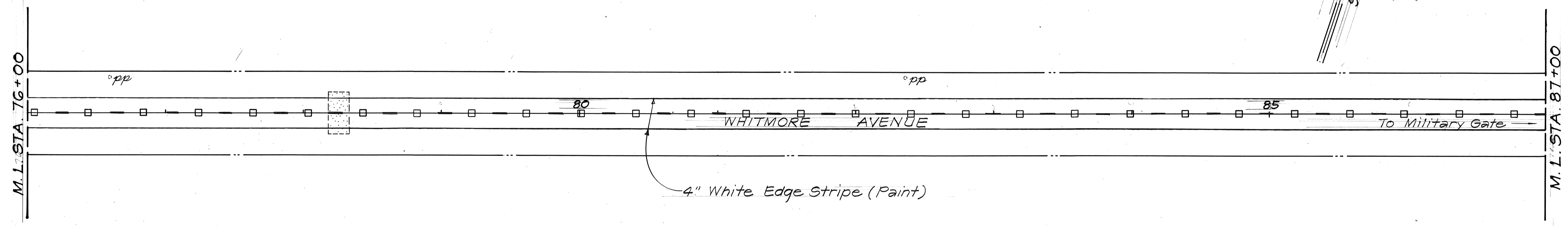
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	14	30

± Sta. 72+30± to ± Sta 74+02± Lt.
 Install three (3) sets of Rumble Strip. For Details, see Plan Sht. No. 12.

TRUE NORTH
 Scale: 1" = 40'



TRUE NORTH
 Scale: 1" = 40'



ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	
NO.	

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

SIGNING & PAVEMENT MARKINGS

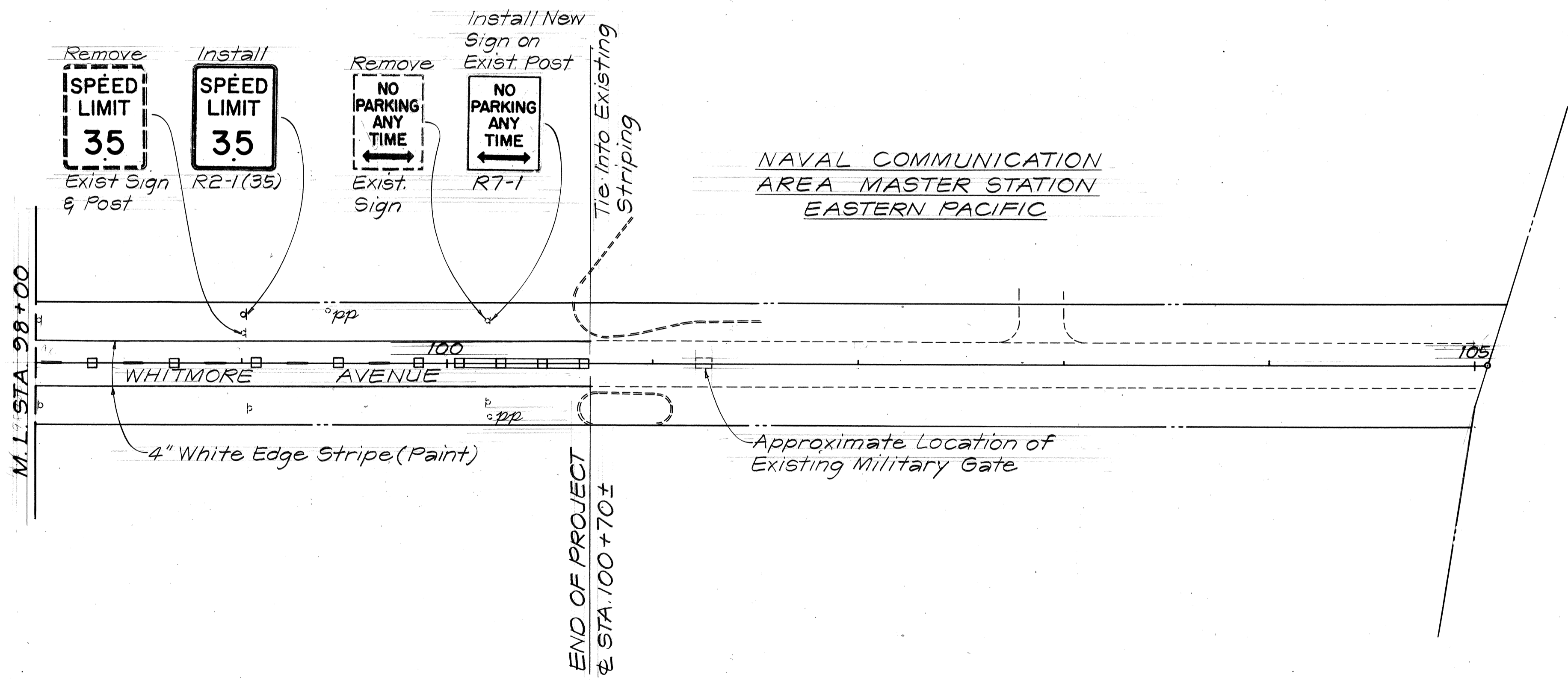
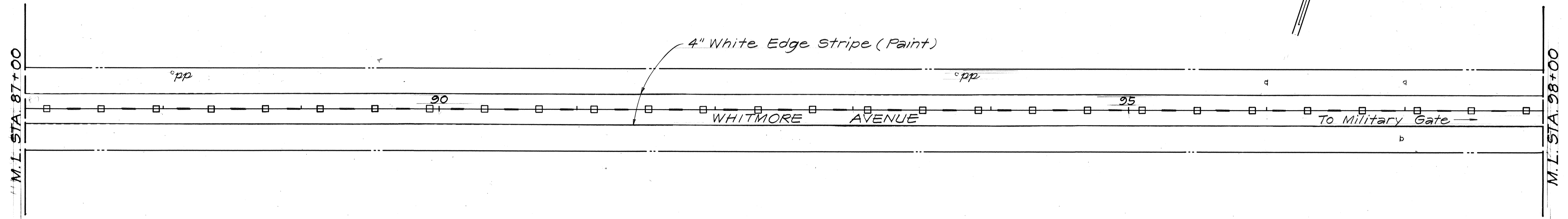
WHITMORE AVE. RESURFACING AND
 SHOULDER IMPROVEMENTS

Kamehameha Hwy. to Military Gate
 Project No. 804A-01-87M
 Scale: As Shown Date: April, 1986

SHEET No. 4 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	15	30

TRUE NORTH
Scale: 1" = 40'



SURVEY PLOTTED BY	DAVE
DRAWN BY	
TRACED BY	
NOTED BY	
CHECKED BY	
NO.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING & PAVEMENT MARKINGS

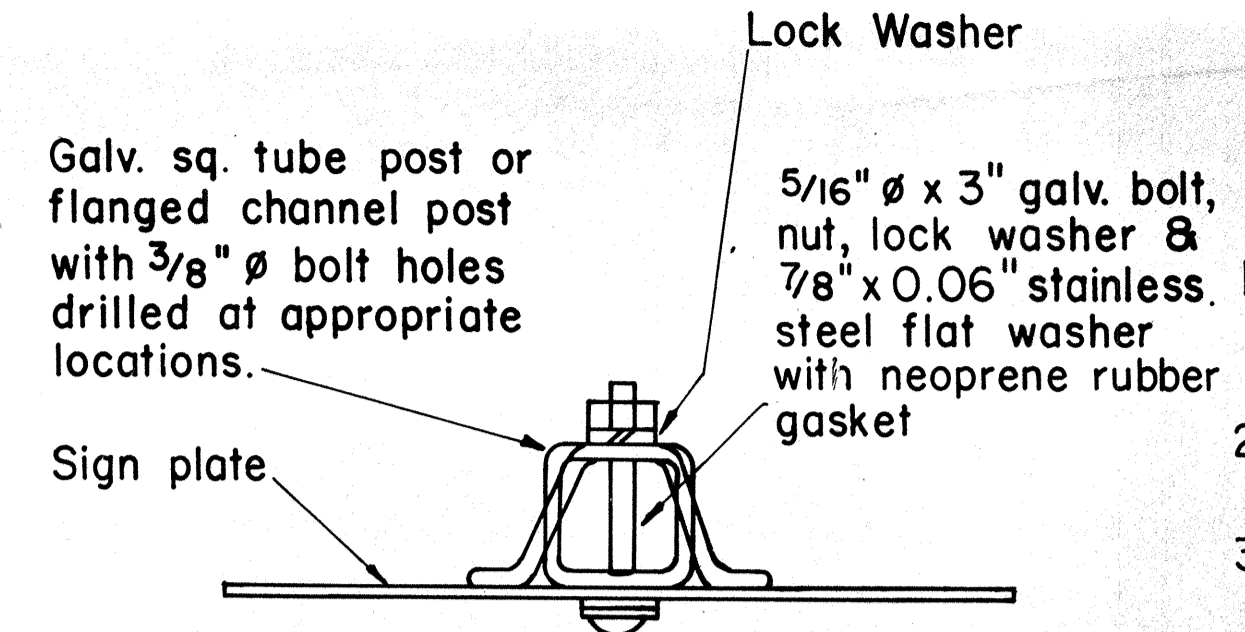
WHITMORE AVE. RESURFACING AND
SHOULDER IMPROVEMENTS
Kamehameha Hwy. to Military Gate
Project No. 804A-01-87M
Scale: As Shown Date: April, 1986

SHEET NO. 5 OF 5 SHEETS

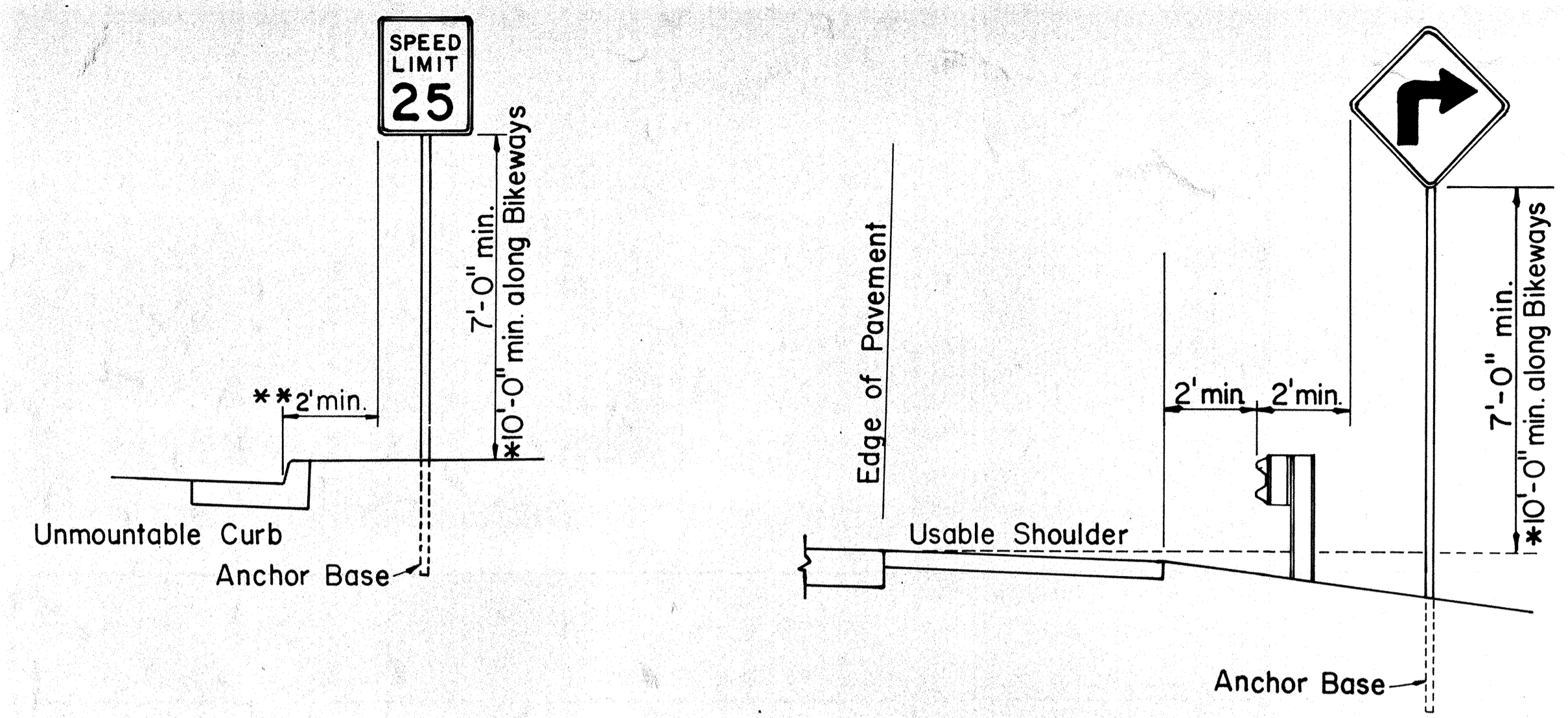
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	16	30

GENERAL NOTES

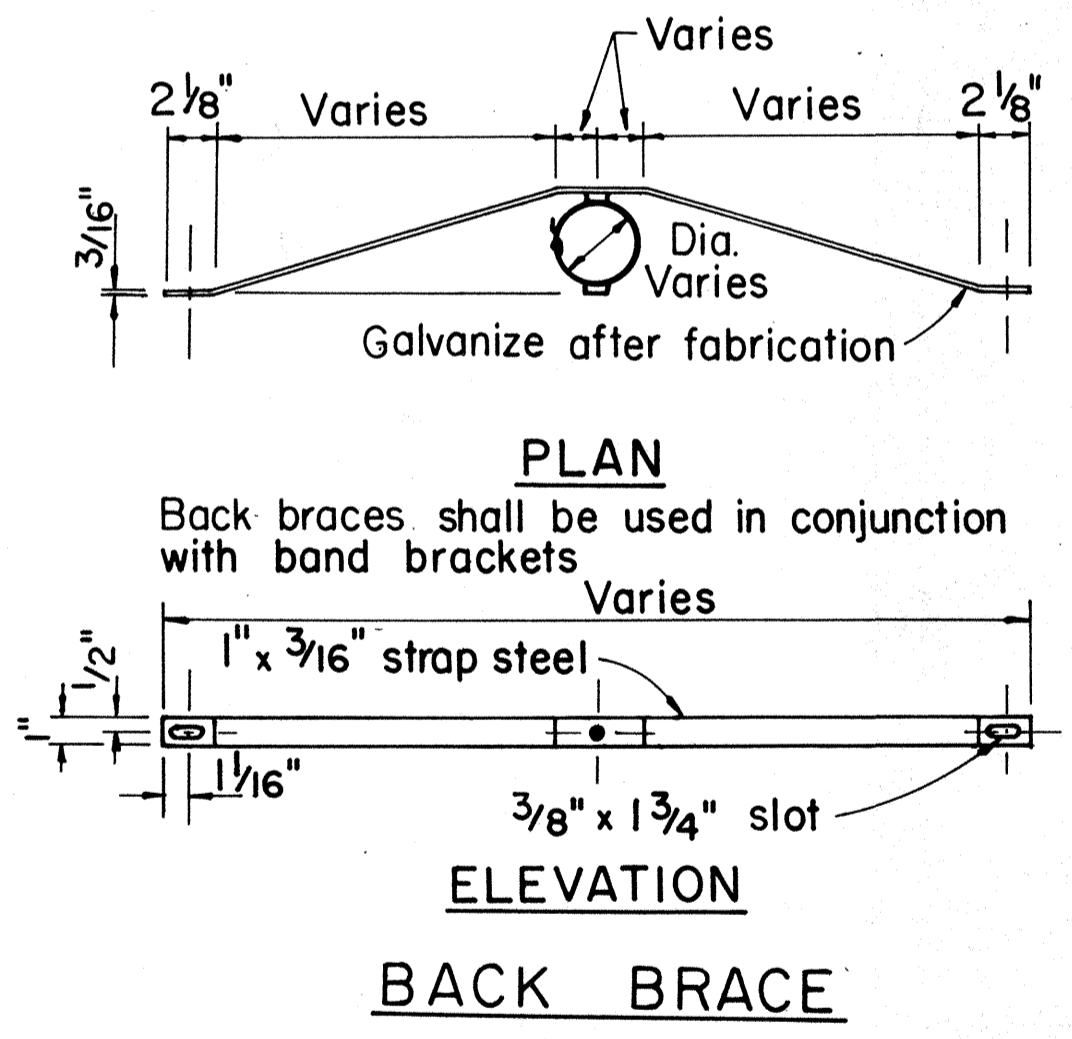
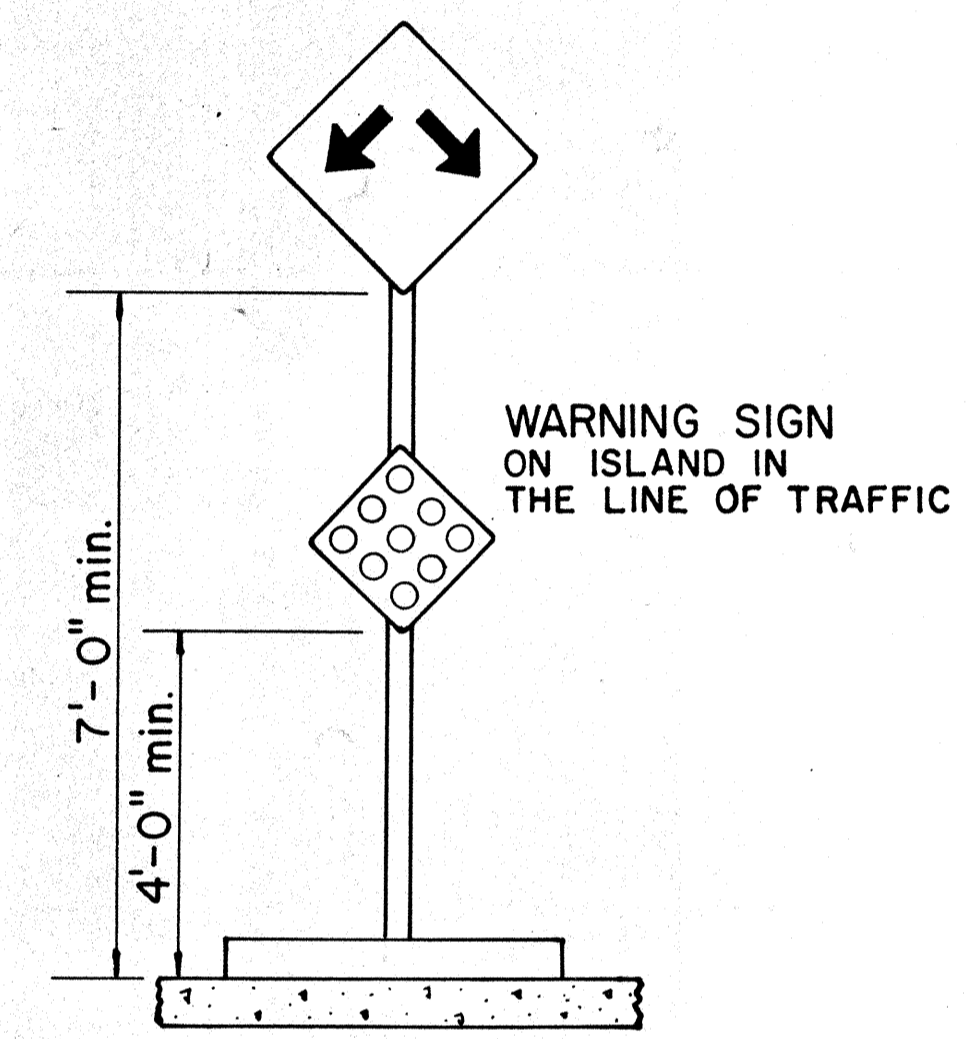
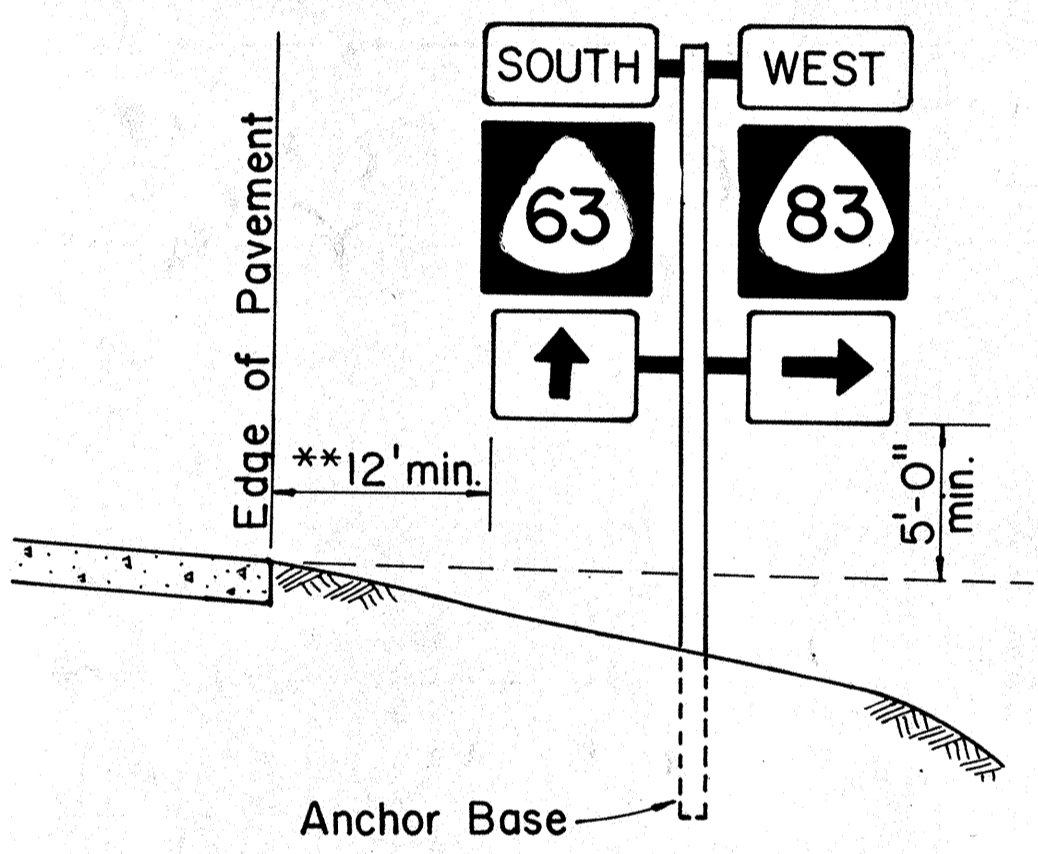
- Signs shall be placed in conformance with positions shown and described in the "Manual on Uniform Traffic Control Devices for Streets and Highways", 1978, Part II, Section 2A-21, as amended, and as supplemented herein.
- Sign 48" and wider or larger than 10 sq. ft. in area shall be mounted on two or 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.
- * 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

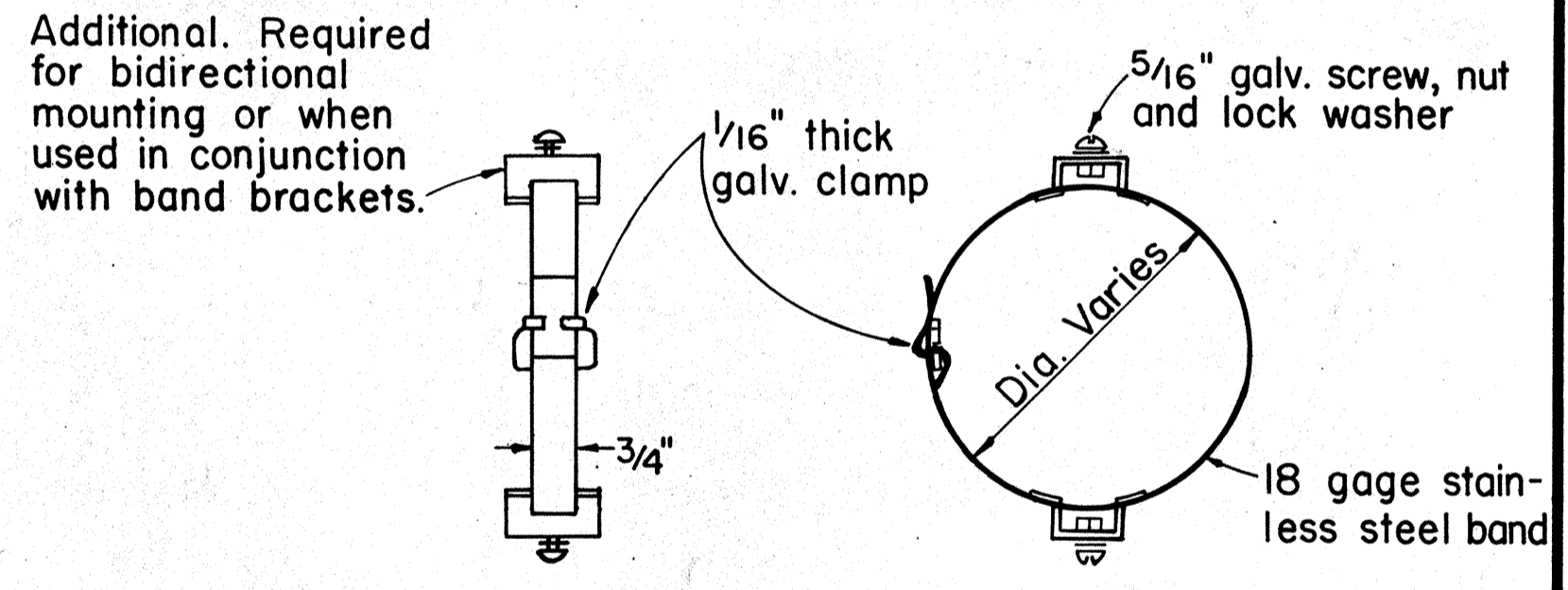


ROADSIDE ASSEMBLY RURAL DISTRICT



TYPICAL MOUNTING DETAILS

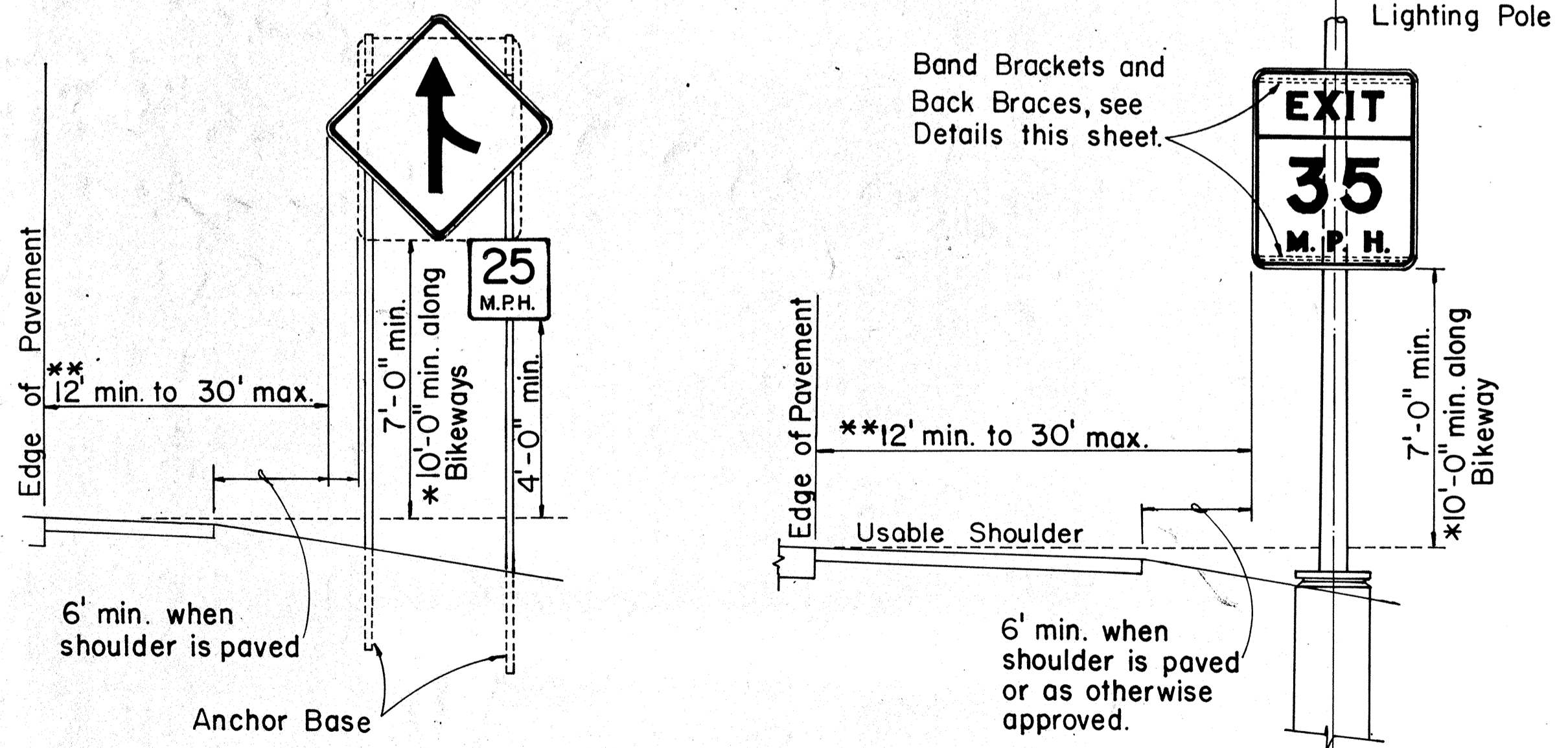
NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 100 approved 11/15/77	[Signature]	10-18-83



BAND BRACKET

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

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



HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATION

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS SIGN DETAILS

Not to Scale: Oct. 1983
 SHEET No. 1 OF 15 SHEETS DT 100

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	17	30

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

APPROVAL RECOMMENDED:

Eishi Tanaka 9/22/82
 TRAFFIC ENGINEER DATE

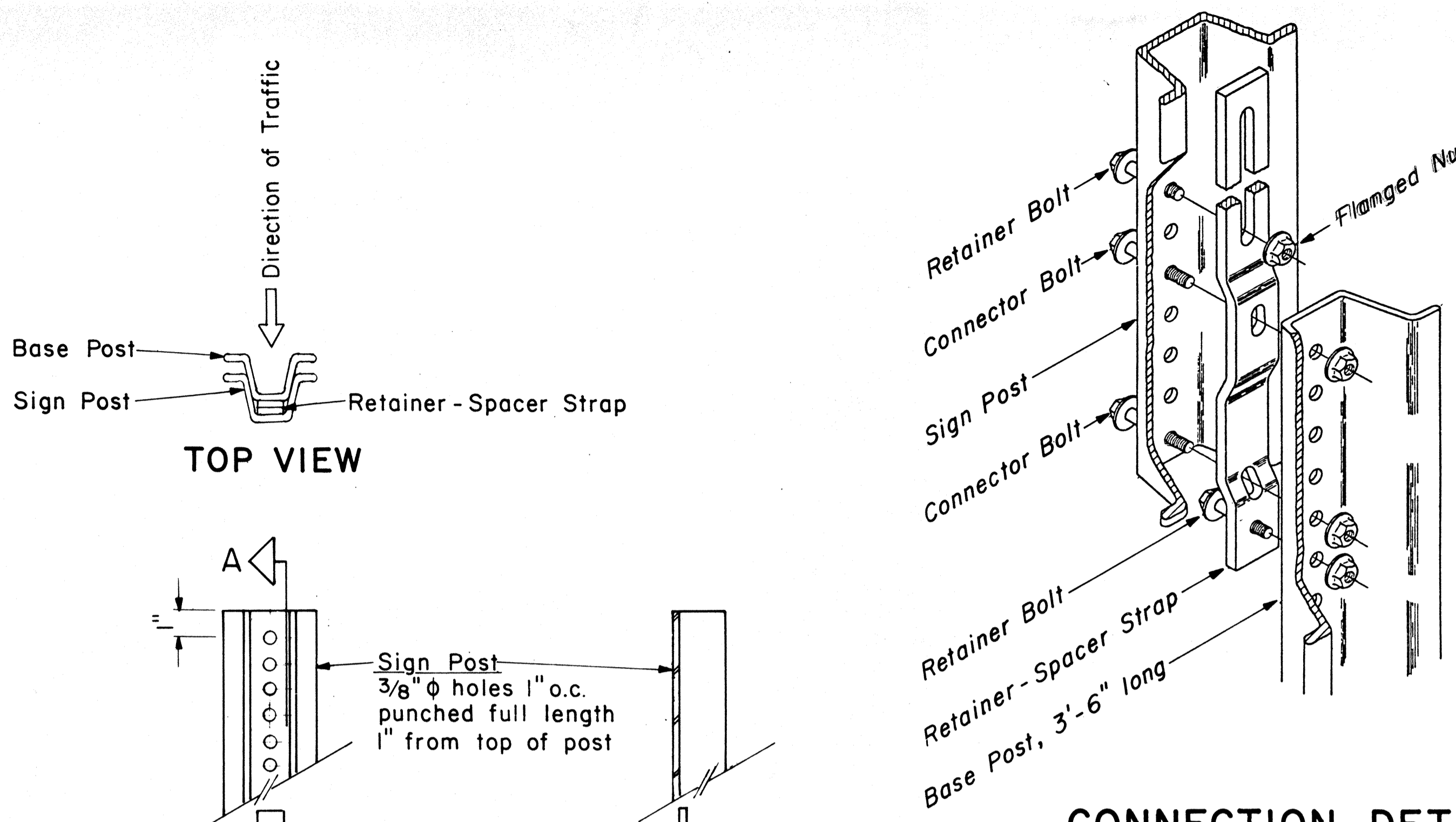
APPROVED:

Herbert S. Sato 9/22/82
 ASSISTANT CHIEF, ENGINEERING DATE

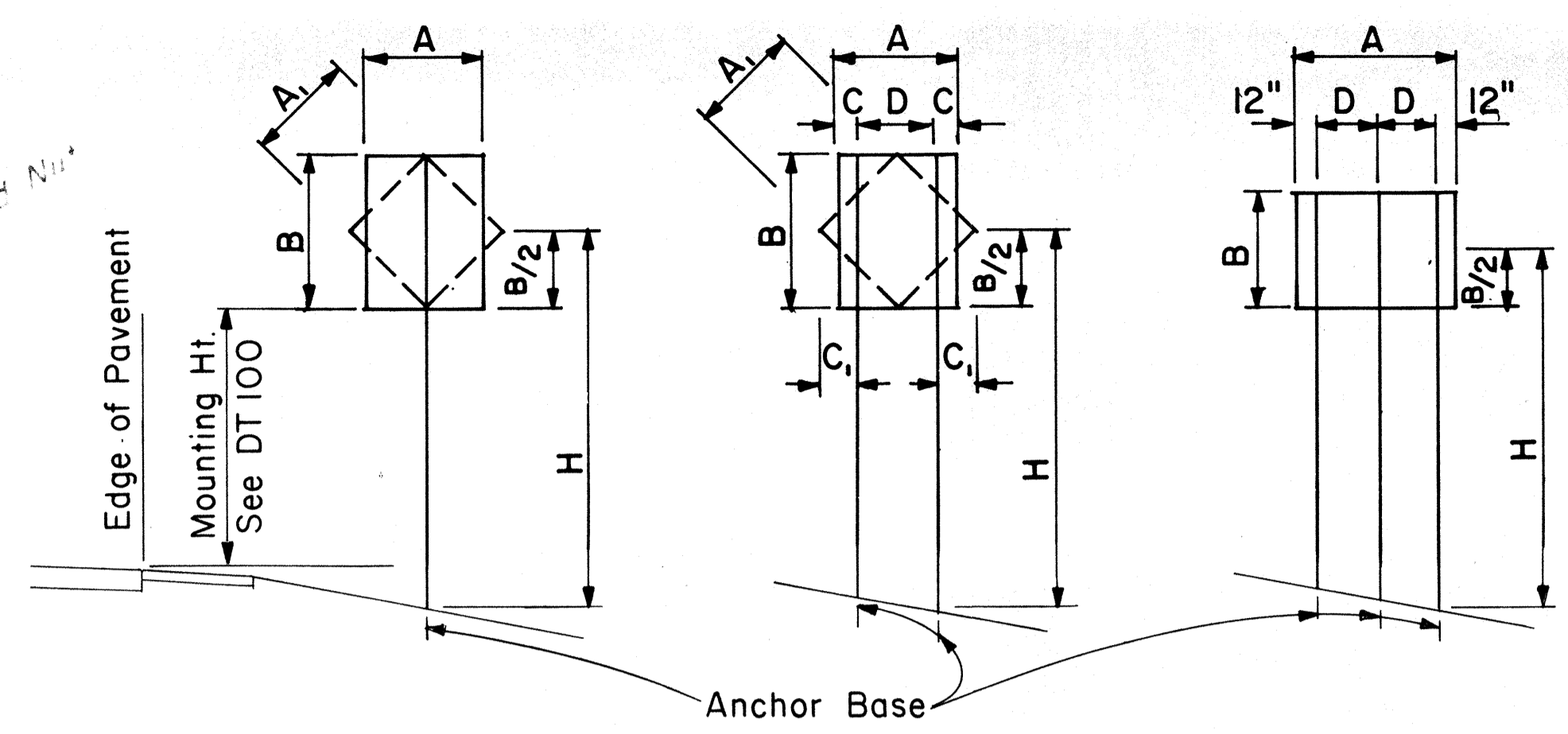
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
GALVANIZED FLANGED CHANNEL
SIGN POST MOUNTING

Scale: As Shown Date: Sept. 1982
 SHEET No. 2 OF 15 SHEETS DT 100A



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.)						A x B (Area, sq.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

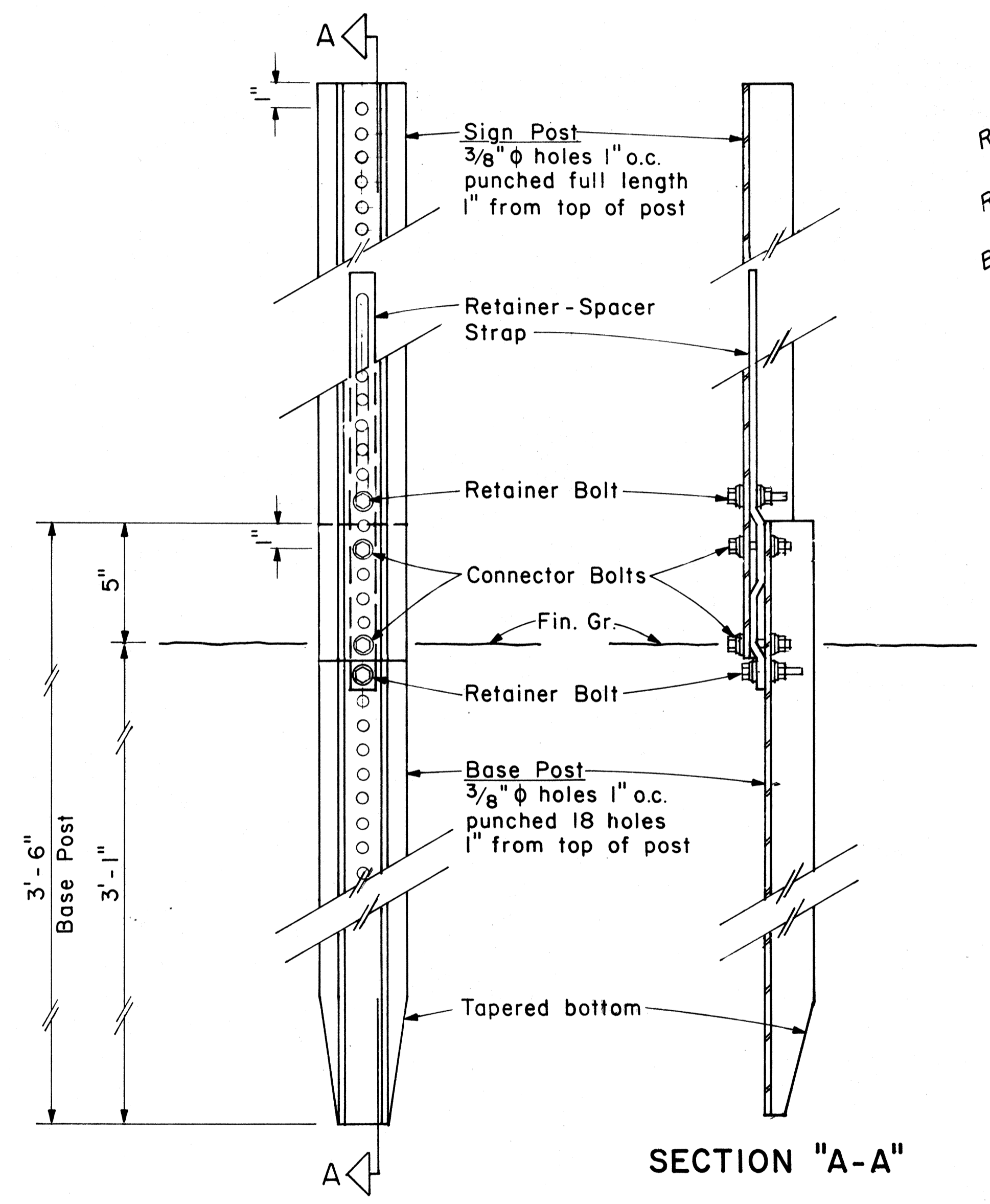
Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)						A x B (Area, sq.ft.)
		7	8	9	10	11	12	
2.50 lbs./ft.	124	17.71	15.50	13.77	12.40	11.27	10.33	
4.00 lbs./ft.	241	34.43	30.13	26.78	24.10	21.91	20.08	

FLANGED CHANNEL: 3-POST INSTALLATION

Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)						A x B (Area, sq.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

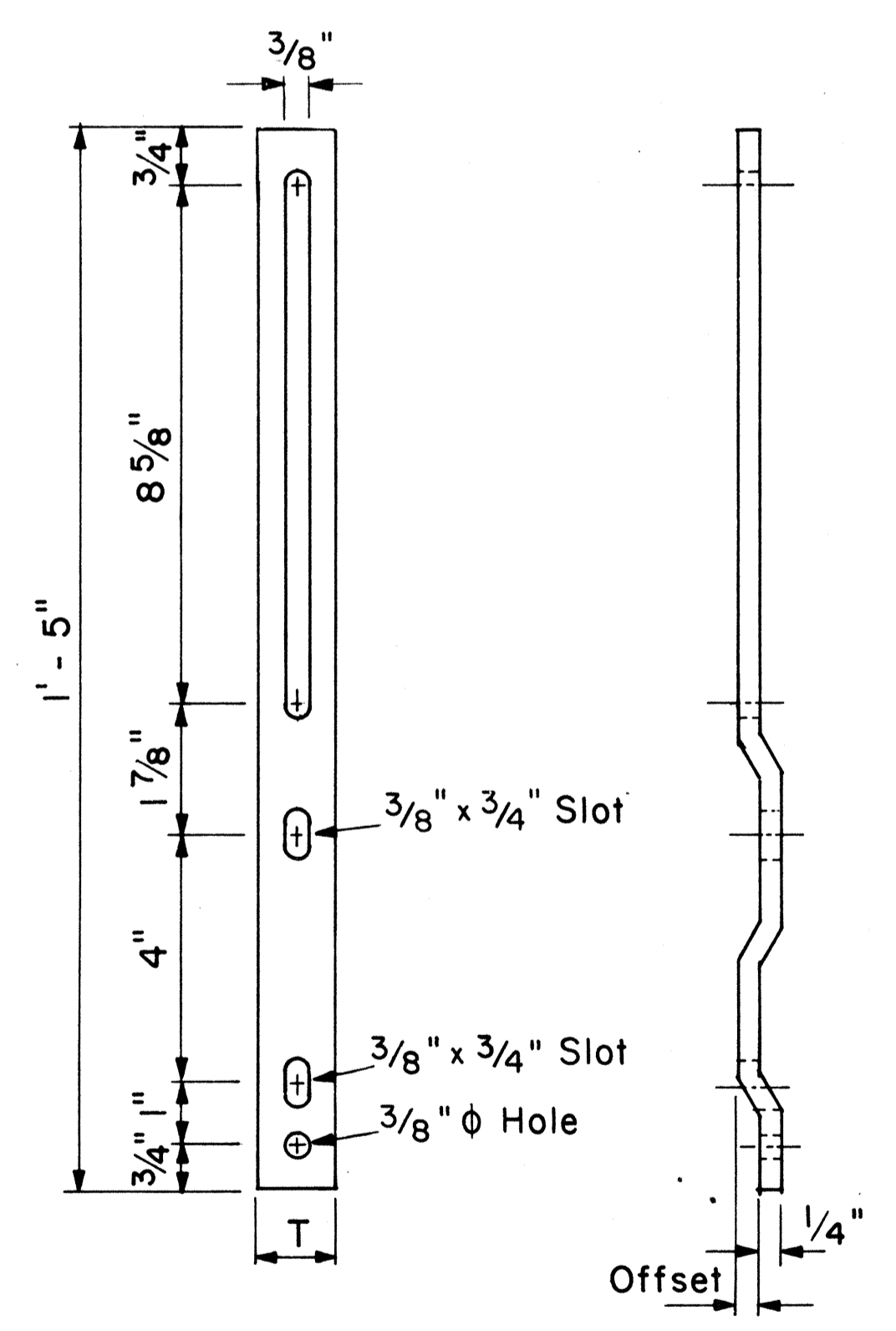


BACK VIEW

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"

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

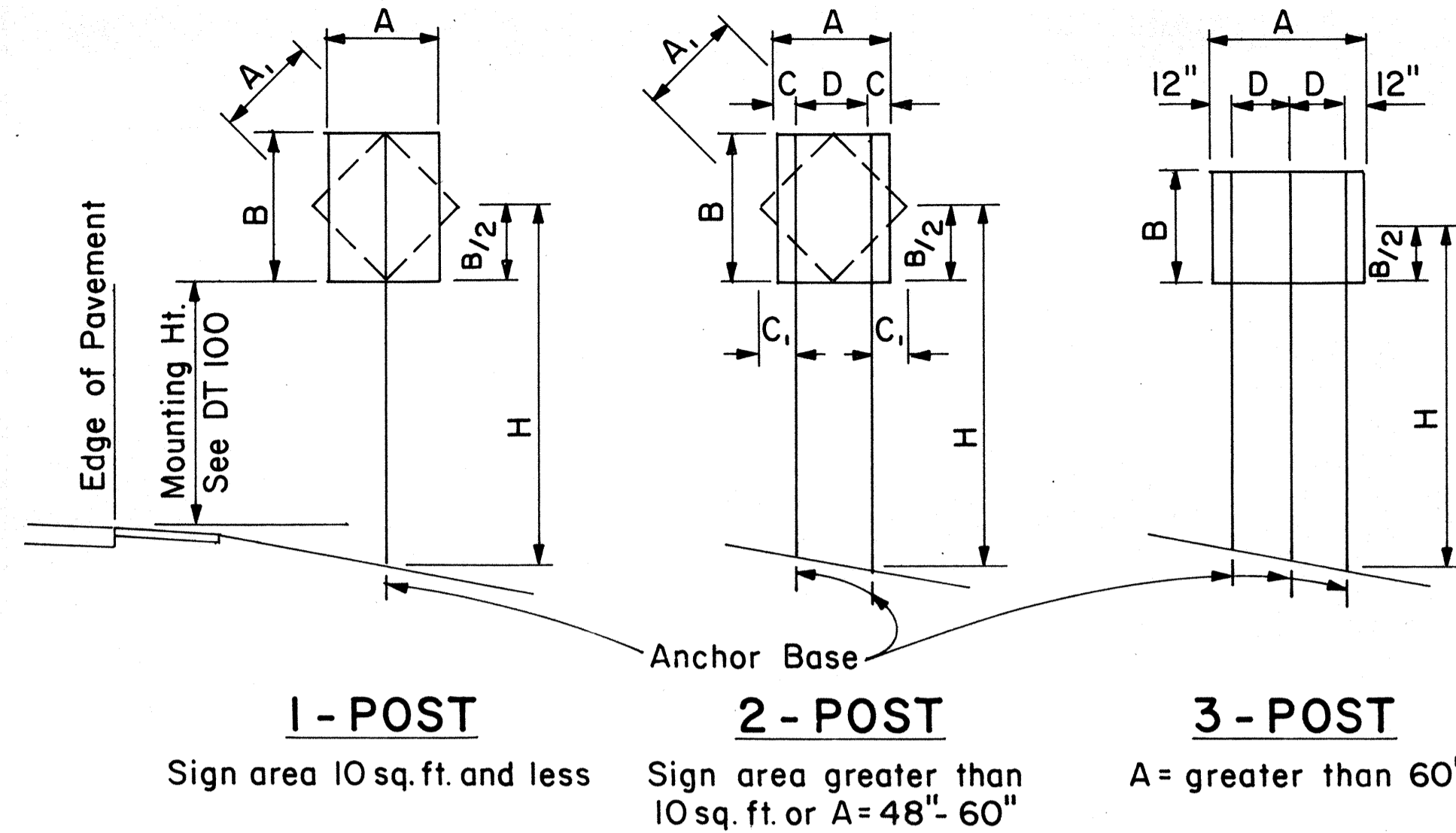
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	18	30

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 $\frac{7}{16}$ " ϕ 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,
 $Maximum\ sign\ area\ (A \times B) = \frac{Factor}{H}$

A or A ₁	C	C ₁
36"	6"	-
48"	9"	19"
60"	12"	24"

NOTE: Frame stiffeners are required when D is greater than 24". See Gen. Note 2.



TYPICAL INSTALLATION

Not to Scale

SQUARE TUBE: 1-POST INSTALLATION		H = Ground Level to Midpoint (ft.)						A x B (Area, sq. ft.)
Post Size	A x B x H (Factor)	7	8	9	10	11	12	
2"	62	8.8	7.7	6.8	6.1	5.6	4.8	
2 1/2"	107	-	-	-	-	9.6	8.8	

SQUARE TUBE: 2-POST INSTALLATION		H = Ground Level to Midpoint (ft.)						A x B (Area, sq. ft.)
Post Size	A x B x H (Factor)	7	8	9	10	11	12	
2"	122	17.4	15.2	13.5	12.2	11.0	10.1	
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		H = Ground Level to Midpoint (ft.)						A x B (Area, sq. ft.)
Post Size	A x B x H (Factor)	7	8	9	10	11	12	
2"	183	26.0	22.8	20.3	18.2	16.6	15.2	
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

NO.	REVISION	APPROVED BY	DATE

APPROVAL RECOMMENDED:

Eishi Tanaka 9/21/82
TRAFFIC ENGINEER DATE

APPROVED:

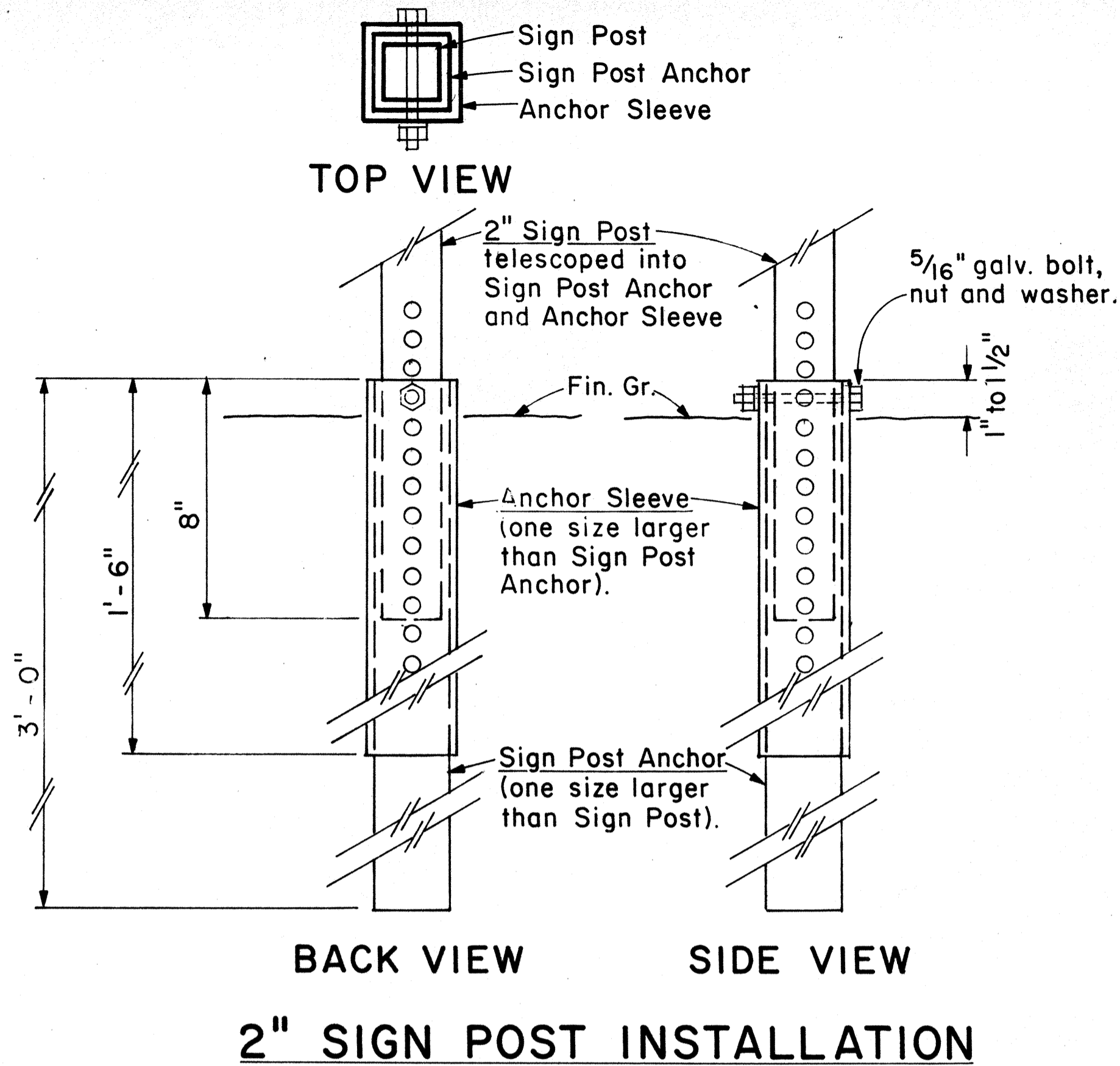
Robert Salaschi 9/22/82
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

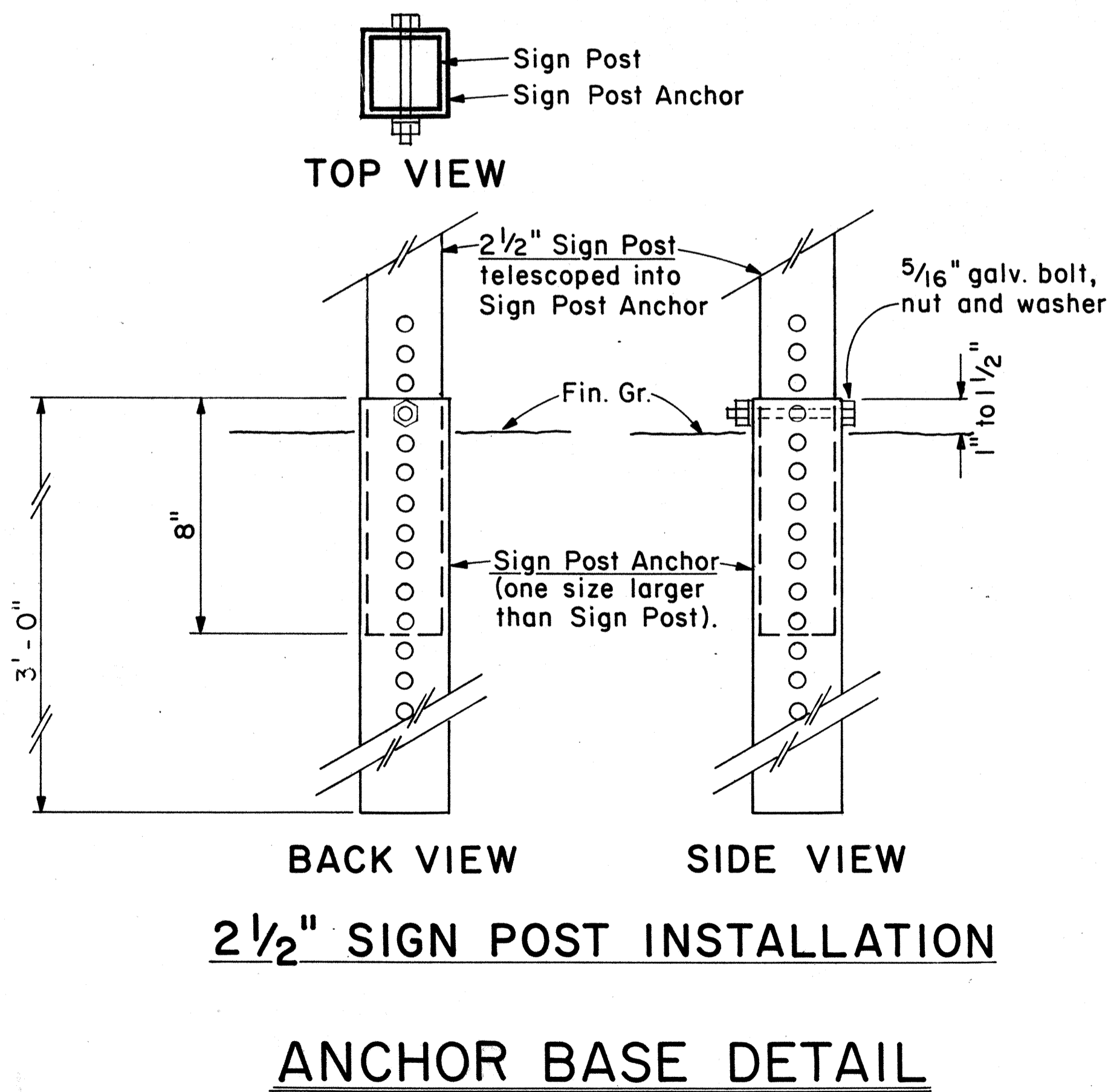
STANDARD DETAILS
GALVANIZED SQUARE TUBE
SIGN POST MOUNTING

Scale: As Shown Date: Sept. 1982

SHEET NO. 3 OF 15 SHEETS DT 100B



2" SIGN POST INSTALLATION



2 1/2" SIGN POST INSTALLATION

ANCHOR BASE DETAIL

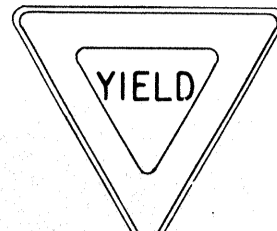
Scale: 3" = 1'-0"

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

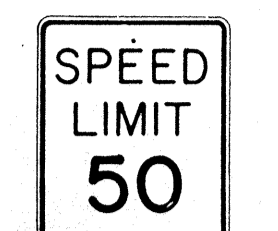
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A 01-87M	1987	19	30



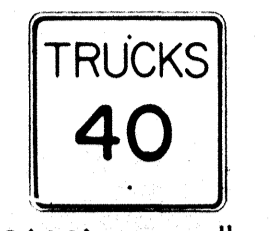
R1-1 30" x 30"
R1-1-A 36" x 36"
4-WAY
R1-3 12" x 6"
R1-3-A 18" x 9"



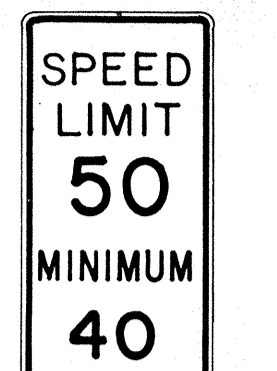
R1-2 36" x 36" x 36"
R1-2-A 48" x 48" x 48"



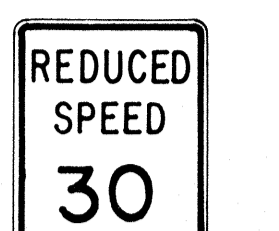
R2-1(50) 24" x 30"
R2-1(50)-A 48" x 60"



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



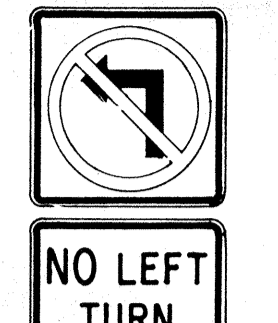
R2-4a(50/40) 24" x 48"
R2-4a(50/40)-A 48" x 96"



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



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



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



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



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



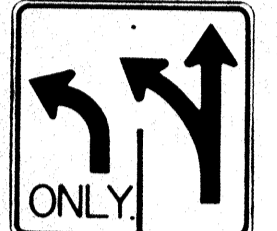
R3-5(L) 30" x 36"
R3-5(L)-A 48" x 60"



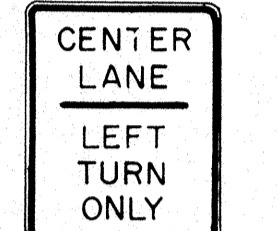
R3-6(L) 30" x 36"
R3-6(L)-A 48" x 60"



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



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



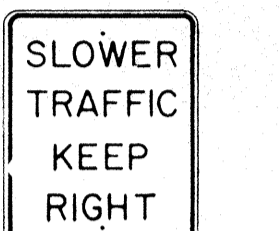
R3-9 24" x 30"



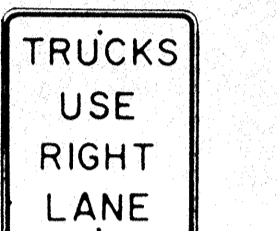
R4-1 24" x 30"
R4-1-A 48" x 60"



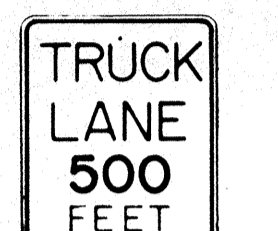
R4-2 24" x 30"
R4-2-A 48" x 60"



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



R4-5 24" x 30"
R4-5-A 48" x 60"



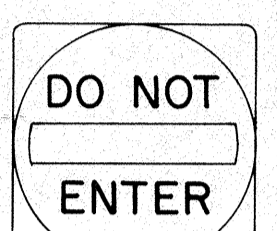
R4-6(500) 24" x 30"
R4-6(500)-A 48" x 60"



R4-7 24" x 30"
24" x 18"
R4-7-A 48" x 60"



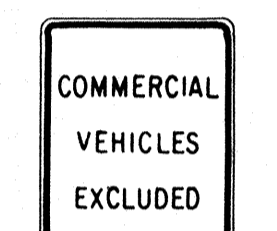
R4-8 24" x 30"
24" x 18"
R4-8-A 48" x 60"



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



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



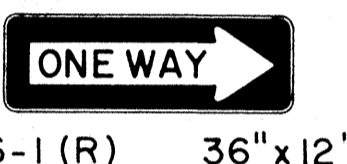
R5-4 24" x 30"
R5-4-A 48" x 60"



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



R5-9 36" x 24"



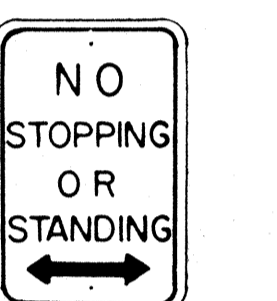
R6-1(R) 36" x 12"



R6-2(R) 18" x 24"



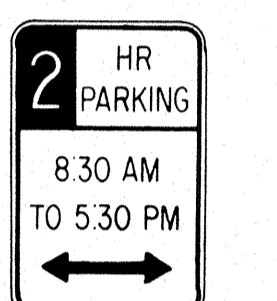
R7-1 12" x 18"
R7-1-A 24" x 30"



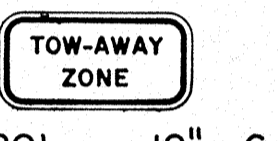
R7-4 12" x 18"
R7-4-A 24" x 30"



R7-107(R) 12" x 18"



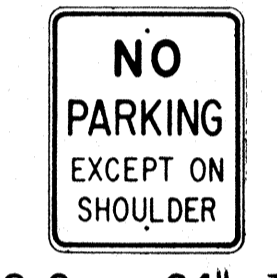
R7-108 12" x 18"



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



R8-1 24" x 30"
R8-1-A 48" x 60"



R8-2 24" x 30"
R8-2-A 48" x 60"



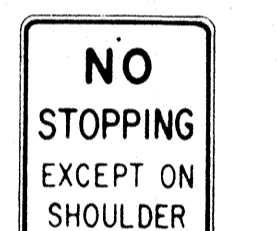
R8-3 24" x 30"
R8-3-A 48" x 48"



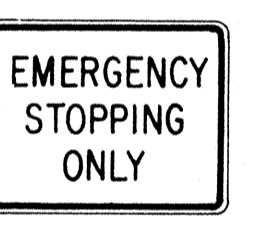
R8-4 30" x 24"
R8-4-A 48" x 36"



R8-5 24" x 30"
R8-5-A 48" x 60"



R8-6 24" x 30"
R8-6-A 48" x 60"



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



R9-1 18" x 24"



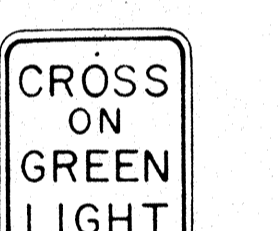
R9-2 12" x 18"



R9-3 12" x 18"



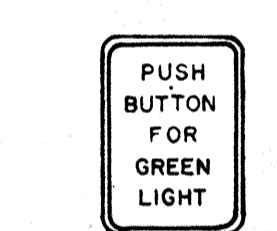
R9-4 18" x 24"



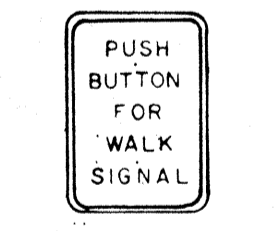
R10-1 12" x 18"



R10-2 12" x 18"



R10-3 9" x 12"



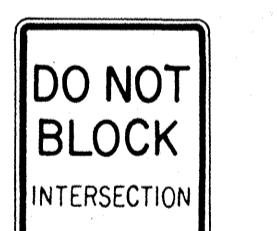
R10-4 9" x 12"



R10-5 24" x 30"



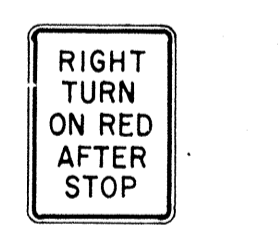
R10-6 24" x 36"



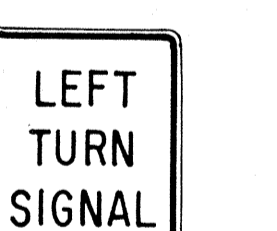
R10-7 24" x 30"



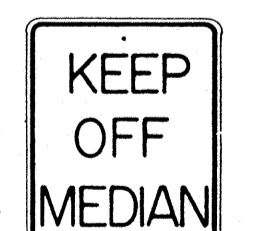
R10-8 24" x 30"



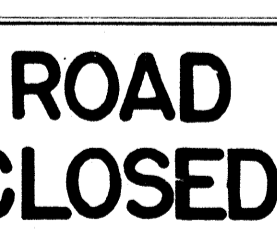
R10-9 24" x 30"



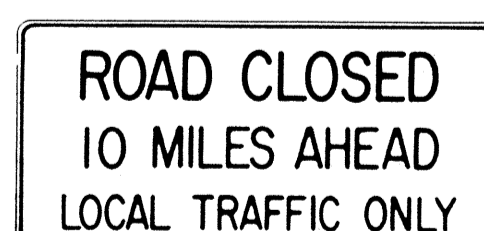
R10-10 24" x 30"



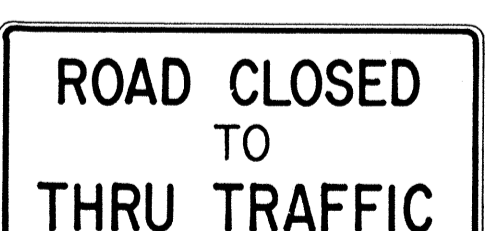
R11-1 24" x 30"



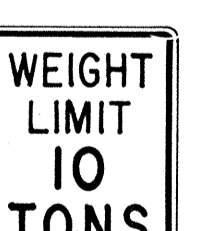
R11-2 48" x 30"



R11-3(10) 60" x 30"



R11-4 60" x 30"



R12-1(10) 24" x 30"

GENERAL NOTES

1. Sign details shall conform to the latest editions of FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," "Standard Alphabets for Highway Signs," and "Standard Highway Signs," and as amended.
2. All regulatory signs shall be reflectorized unless otherwise specified.
3. All regulatory signs shall have 3/8" bolt holes drilled at appropriate locations.
4. Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
5. All signs shall be erected without educational plaques unless called for in the plans.

APPROVAL RECOMMENDED:
Etsuki Tanaka 3/17/72
 TRAFFIC ENGINEER DATE

APPROVED:
Julius Rabin 3-20-72
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H.I.	2/20/72
2	Revised General Note 1	H.I.	10/12/74
3	Added General Note 5	H.I.	8/2/77
4	Revised Signs and General Note 1	E.T.	3/1/82

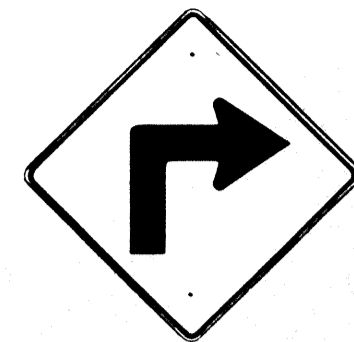
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
REGULATORY SIGNS

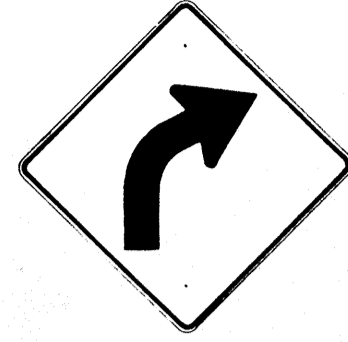
NOT TO SCALE
 SHEET No. 4 OF 15 SHEETS DT 101

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

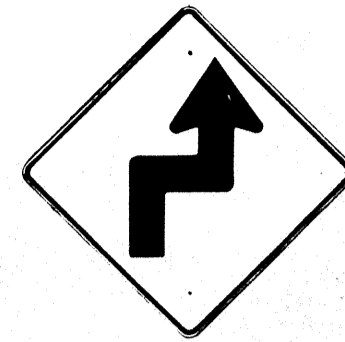
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII*	HAW.	804A-01-87M	1987	20	30



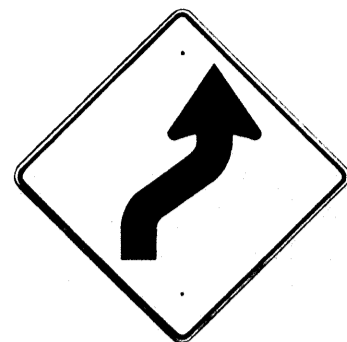
W1-1(R) 30"x30"
W1-1(R)-A 48"x48"



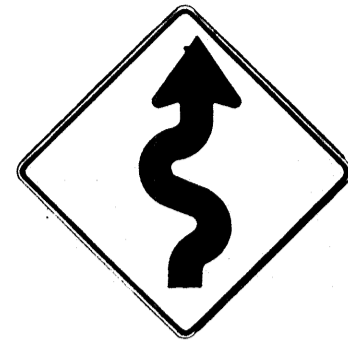
W1-2(R) 30"x30"
W1-2(R)-A 48"x48"



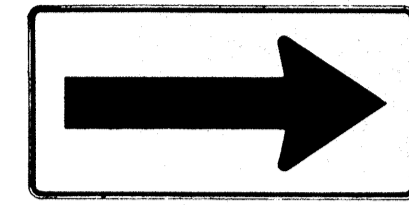
W1-3(R) 30"x30"
W1-3(R)-A 48"x48"



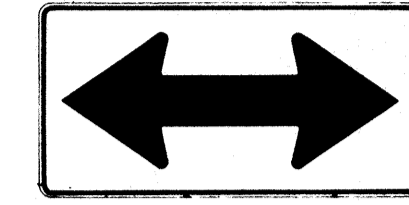
W1-4(R) 30"x30"
W1-4(R)-A 48"x48"



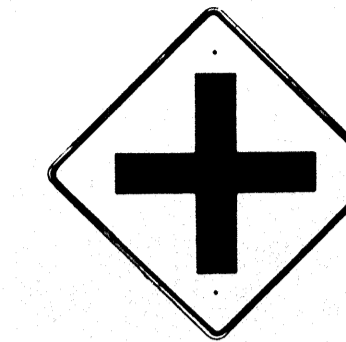
W1-5(R) 30"x30"
W1-5(R)-A 48"x48"



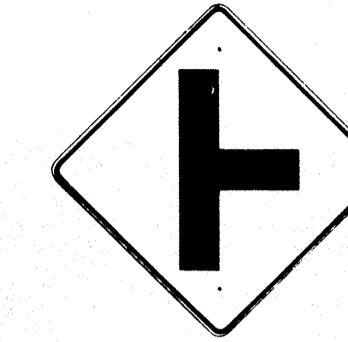
W1-6 48"x24"



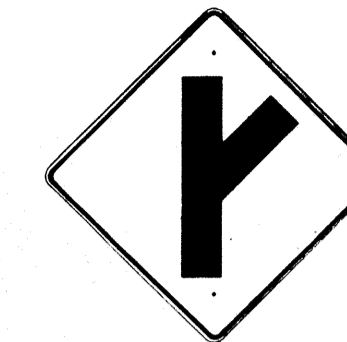
W1-7 48"x24"



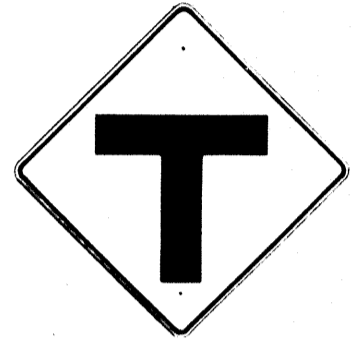
W2-1 30"x30"
W2-1-A 48"x48"



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



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



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



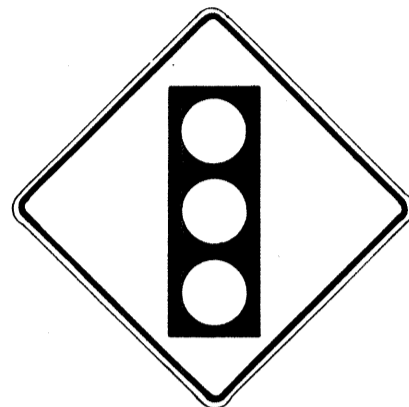
W2-5 30"x30"
W2-5-A 48"x48"



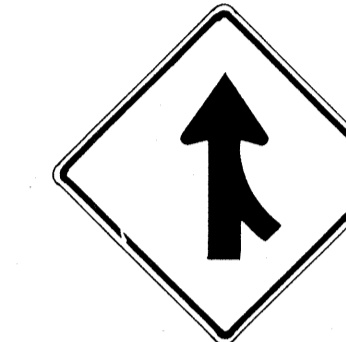
W3-1 30"x30"
W3-1-A 36"x36"



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

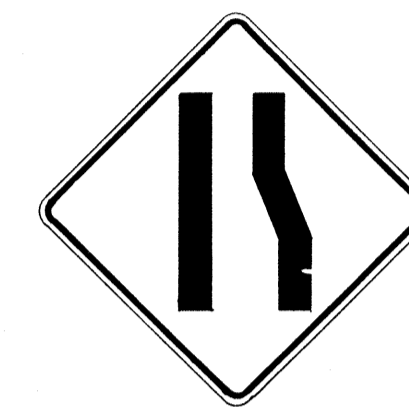


W3-3 36"x36"
24"x18"



W4-1(R) 30"x30"
24"x18"

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



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



W5-1 36"x36"
W5-1-A 48"x48"



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



W5-3 36"x36"
W5-3-A 48"x48"



DIVIDED HIGHWAY

W6-1 36"x36"
24"x18"
W6-1-A 48"x48"
24"x18"



DIVIDED HIGHWAY ENDS

W6-2 36"x36"
24"x18"
W6-2-A 48"x48"
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 48"x48"
24"x18"



USE LOW GEAR
W7-2 24"x18"



BUMP

W8-1 30"x30"
W8-1-A 36"x36"
W8-1-B 48"x48"



DIP

W8-2 30"x30"
W8-2-A 36"x36"
W8-2-B 48"x48"



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"



W10-1 36" Diameter



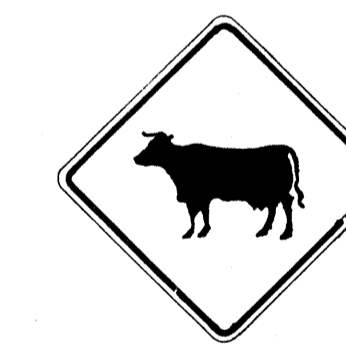
BIKE XING

W11-1 30"x30"
24"x18"
W11-1-A 36"x36"
24"x18"
W11-1-B 48"x48"



PED XING

W11A-2 30"x30"
24"x18"
W11A-2-A 36"x36"
24"x18"
W11A-2-B 48"x48"
24"x18"



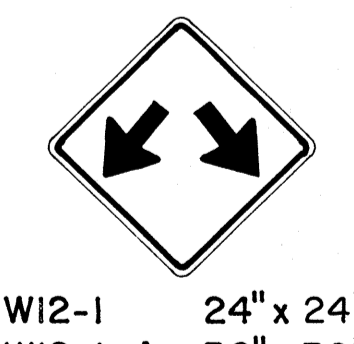
CATTLE XING

W11-4 30"x30"
24"x18"
W11-4-A 36"x36"
24"x18"
W11-4-B 48"x48"
24"x18"



FARM MACHINERY

W11-5 30"x30"
24"x18"
W11-5-A 36"x36"
24"x18"
W11-5-B 48"x48"

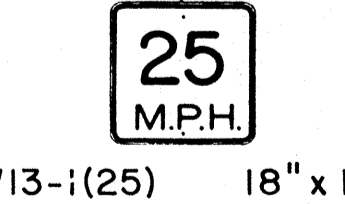


W12-1 24"x24"
W12-1-A 36"x36"
W12-1-B 48"x48"



LOW CLEARANCE

W12-2(12'-6") 36"x36"
24"x18"
W12-2(12'-6") 48"x48"



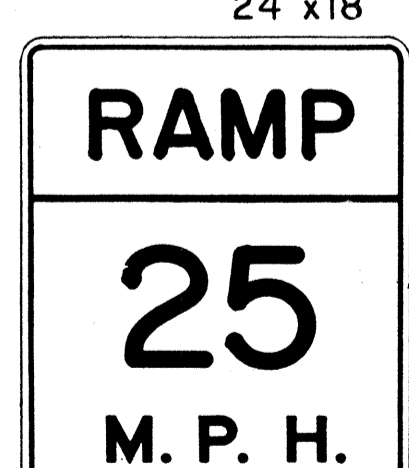
25 M.P.H.
W13-1(25) 18"x18"
W13-1(25)-A 24"x24"



EXIT

25 M. P. H.

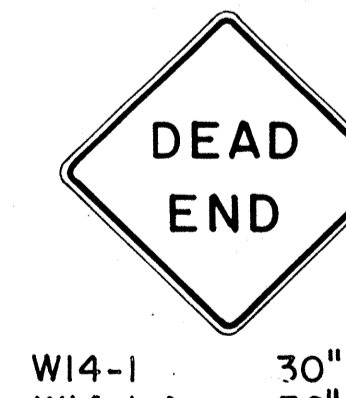
W13-2(25) 48"x60"



RAMP

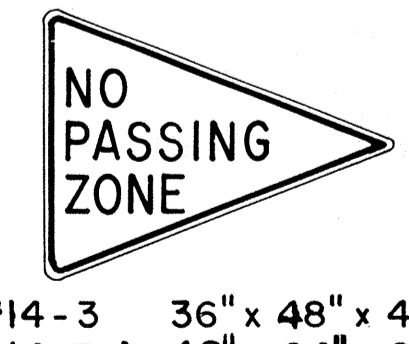
25 M. P. H.

W13-3(25) 48"x60"



DEAD END

W14-1 30"x30"
W14-1-A 36"x36"



NO PASSING ZONE

W14-3 36"x48"x48"
W14-3-A 48"x64"x64"

NOTE

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

GENERAL NOTES

- Sign details shall conform to the latest editions of FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways", "Standard Alphabet for Highway Signs", and "Standard Highway Signs", 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:
Eishi Tanaka 3/17/72
TRAFFIC ENGINEER DATE

APPROVED:
Walter Dalside 3-20-72
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 102 Approved 12-30-69	H.T.	3/20/72
2	Revised General Note 1	H.T.	10/16/74
3	Revised General Note 5	M.P.	9-16-75
4	Revised General Note 5	H.T.	9-14-76
5	Added Note 1	H.T.	11-7-77
6	Revised Signs & General Note 1	E.T.	9/12/85

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
WARNING SIGNS

NOT TO SCALE

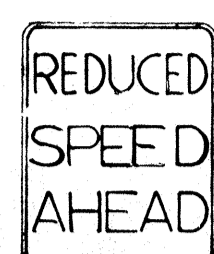
DESIGNED BY: _____
CHECKED BY: _____
DATE: _____

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	21	30

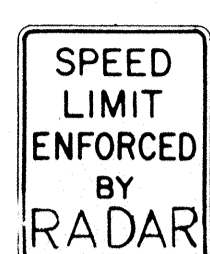
General Notes

- 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"

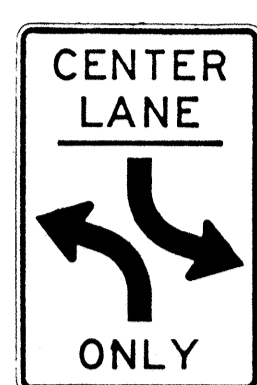


R2-5a 24" x 30"
R2-5a-A 48" x 60"

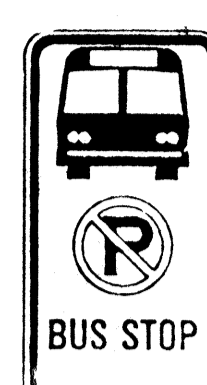


R2-10 24" x 30"

4" Series D
- 4" Series C
- 3" Series D
- 5" Series C



R3-9b 24" x 36"



R7-107 12" x 24"



R7-8 12" x 18"
R7-8-A 24" x 30"



ANY TIME - 4" Series C
1 1/2"
R8-3a 24" x 24"
24" x 18"
R8-3a-A 48" x 48"



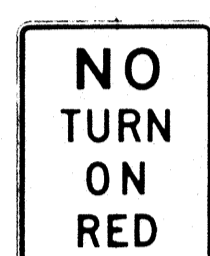
R9-3a 18" x 18"
18" x 12"
R9-3a-A 24" x 24"
24" x 18"



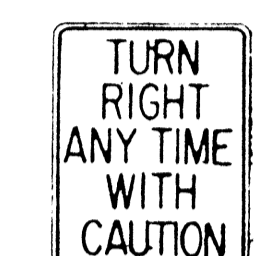
R9-3b(R) 18" x 12"



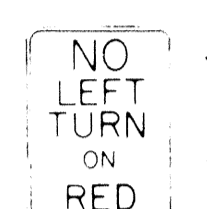
R9-3b(L) 18" x 12"



R10-11a 24" x 30"



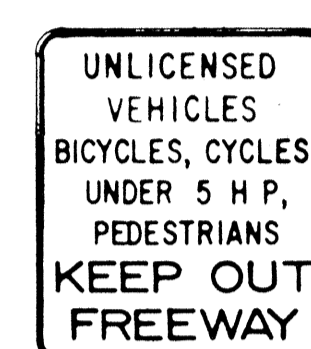
R16-1 24" x 30"



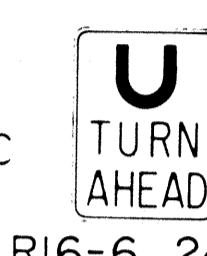
R16-3 18" x 24"



R16-4 18" x 24"



R16-5 36" x 42"

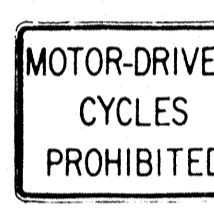


R16-6 24" x 30"

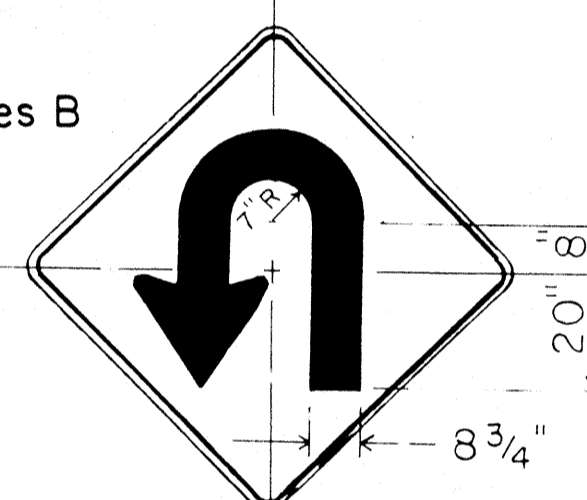
8" Series F
5" Series D



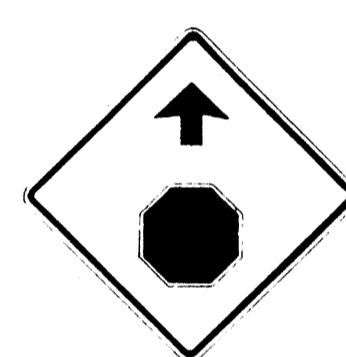
R16-7 24" x 30"



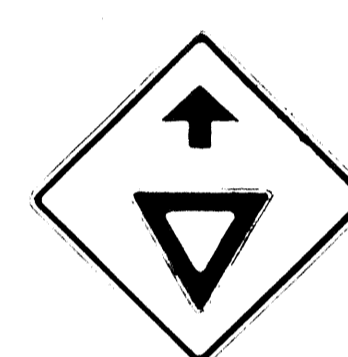
R5-8 30" x 24"



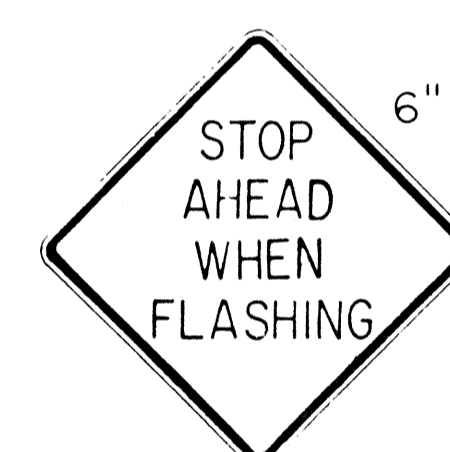
W17-1(L) 60" x 60"



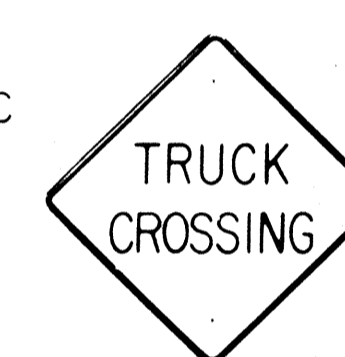
W3-1a 36" x 36"
24" x 18"
W3-1a-A 48" x 48"
24" x 18"



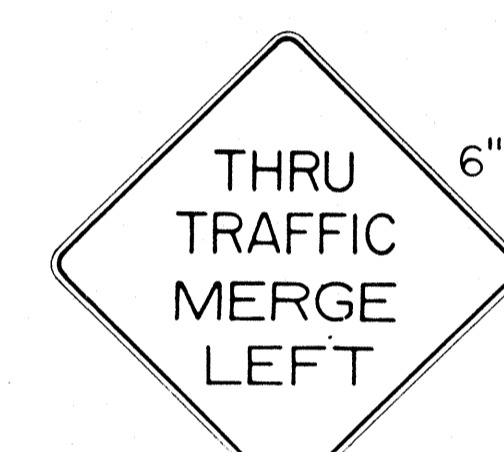
W3-2a 36" x 36"
24" x 18"
W3-2a-A 48" x 48"
24" x 18"



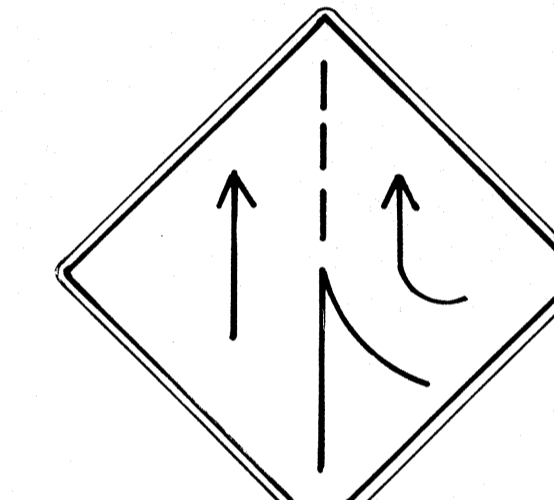
W3-4 48" x 48"



W8-6 30" x 30"
W8-6-A 36" x 36"
W8-6-B 48" x 48"



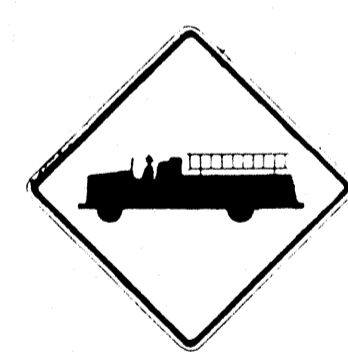
W9-3(L) 48" x 48"



W4-3 36" x 36"
W4-3-A 48" x 48"



W11-7 36" x 36"
24" x 18"
W11-7-A 48" x 48"
24" x 18"



W11-8 36" x 36"
24" x 18"
W11-8-A 48" x 48"
24" x 18"



W11-9 36" x 36"
W11-9-A 48" x 48"



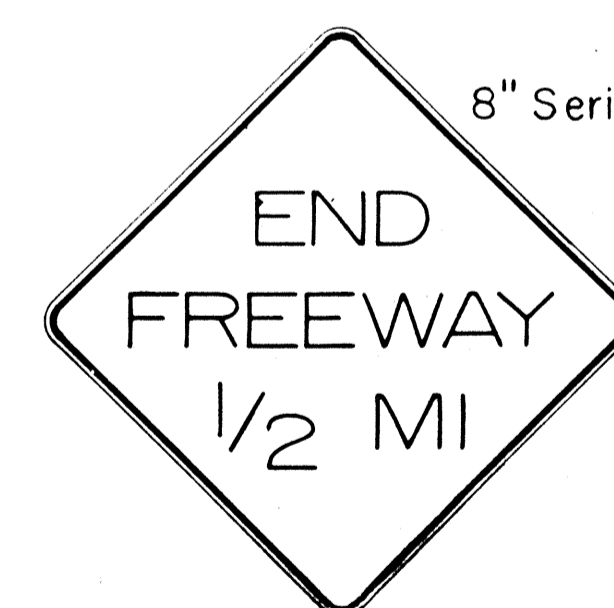
W14-4 36" x 36"
W14-4-A 48" x 48"



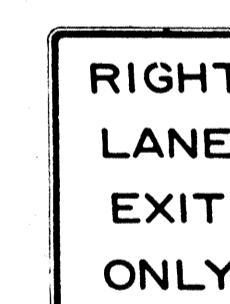
W15-1 24" x 24"



W15-2 24" x 24"



CW16-1(1/2) 60" x 60"



W18-1 48" x 60"



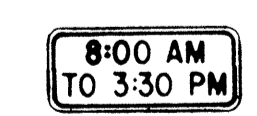
S1-1 36" x 36"
S1-1-A 48" x 48"



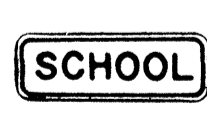
S2-1 36" x 36"
S2-1-A 48" x 48"



S3-1 30" x 30"
S3-1-A 36" x 36"



S4-1 24" x 10"



S4-3 24" x 8"



S4-2 24" x 10"



S4-4 24" x 10"



CW23-4 48" x 48"



R18-1 24" x 18"

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

APPROVED:
Harbor 2. Sakai 5/3/78
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT103 approved 3/20/72	H.T.	5/2/78
2	Added General Note 6	H.T.	11/9/78
3	Revised Signs and added Sign W4-3	E.T.	2/2/80

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

MISCELLANEOUS SIGNS

NOT TO SCALE DATE: MAY, 1978
SHEET No. 6 OF 15 SHEETS DT 103

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	22	30



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 36" x 36"
24" x 18"
CW20-7c-A 48" x 48"
24" x 18"



CW21-1 30" x 30"



CW21-2 30" x 30"



CW21-3 36" x 36"



CW21-4 36" x 36"



CW21-5 30" x 30"



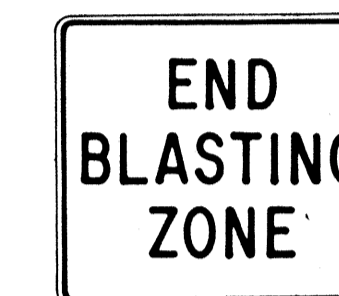
CW21-6 30" x 30"



CW22-1b 48" x 48"



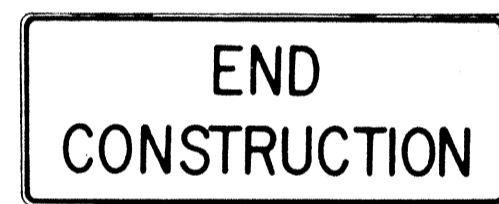
CW22-2 42" x 36"



CW22-3 42" x 36"



CG20-1(5) 60" x 36"



CG20-2 60" x 24"



CM4-9(R) 30" x 24"



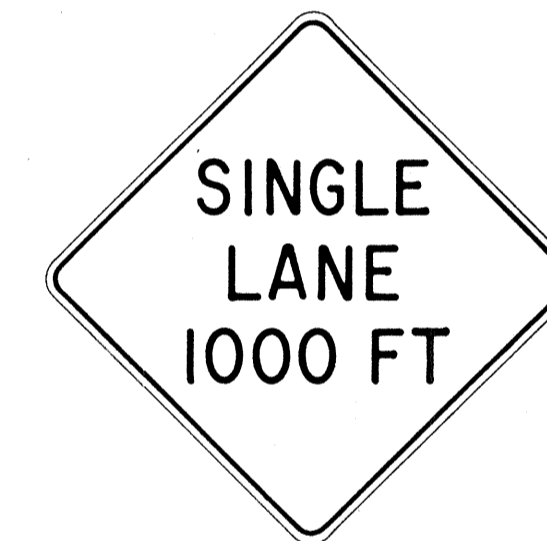
CM4-10(R) 48" x 18"



CG20-4 36" x 18"



CW23-1 36" x 36"



CW23-2b 48" x 48"



CW23-3(R) 48" x 48"

GENERAL NOTES

- Sign details shall conform to the latest editions of FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," "Standard Alphabets for Highway Signs," and "Standard Highway Signs," 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 3/21/12
TRAFFIC ENGINEER DATE

APPROVED:
William Sakai 3/23/12
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	H.T.	3/23/12
2	Revised General Note 1	H.T.	10/10/14
3	Revised General Note 2	H.T.	9-16-75
4	Revised General Note 2 and sign CG20-1(5)	H.T.	9-14-76
5	Revised General Note 1 and sign CW20-7c	E.T.	3/18/85

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
CONSTRUCTION SIGNS

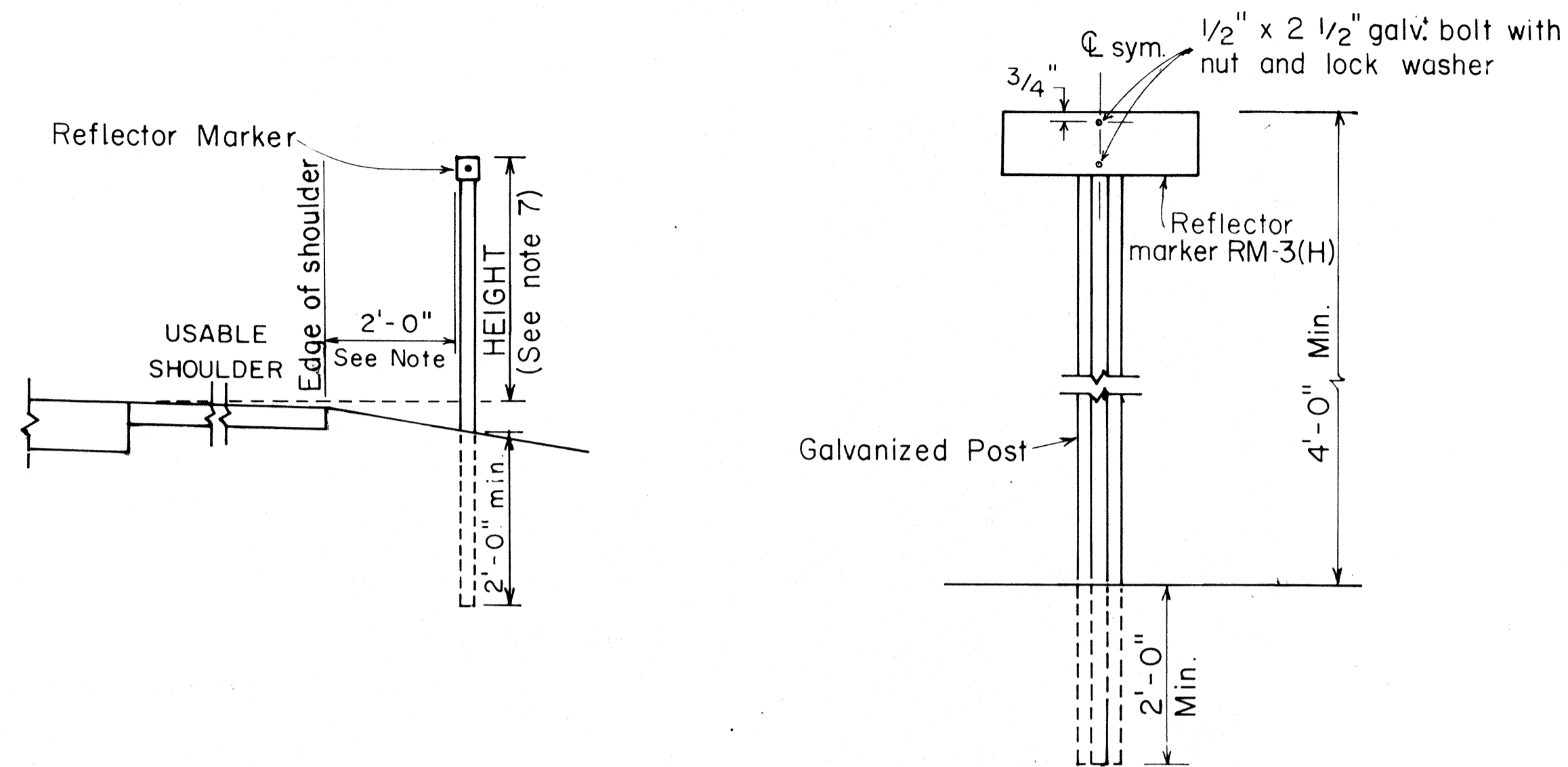
NOT TO SCALE

DESIGNED BY	DATE
PLANNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

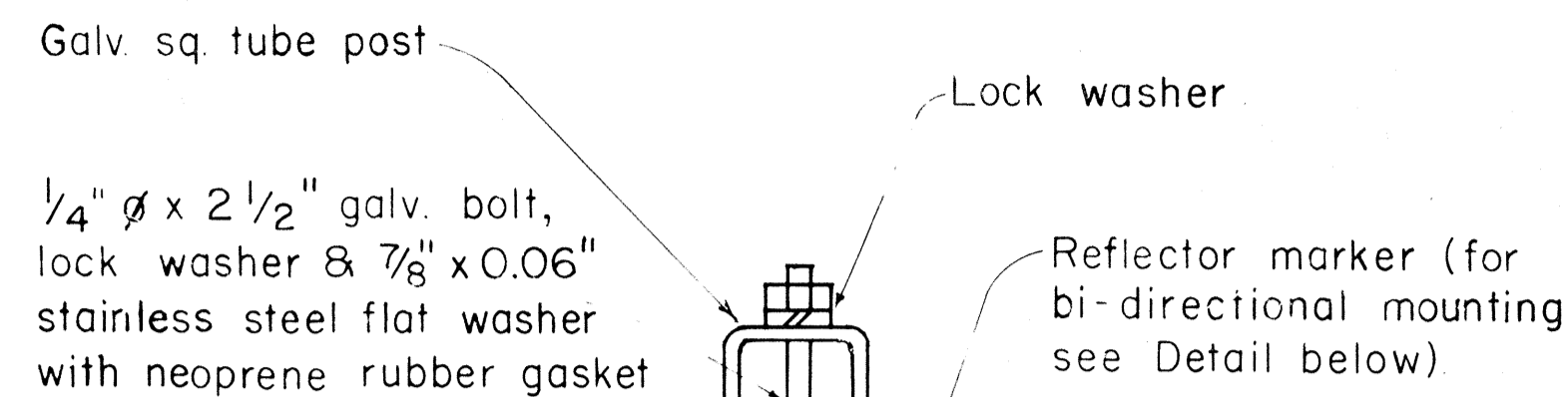
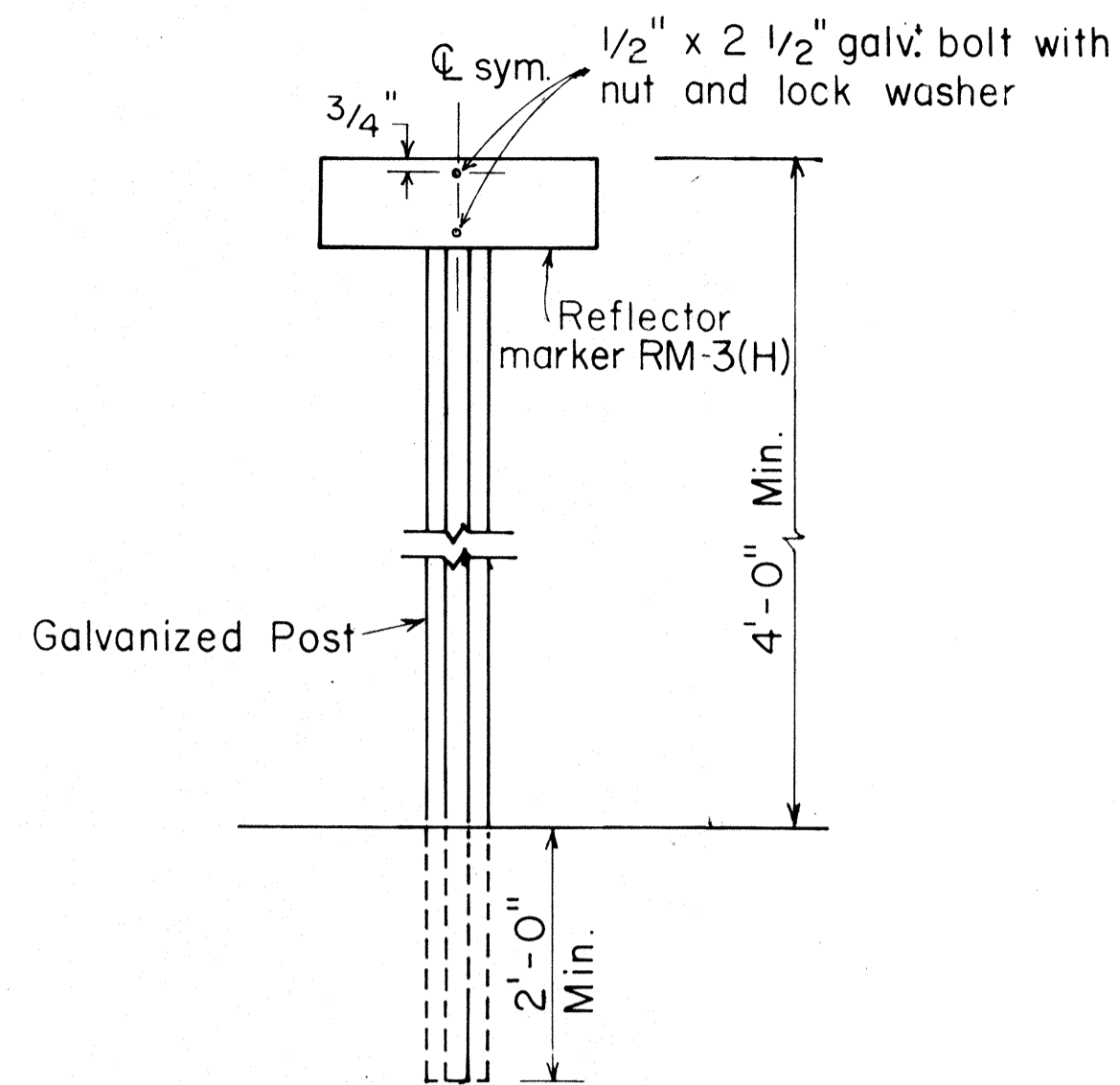
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804-A 01-87M	1987	23	30

GENERAL NOTES:

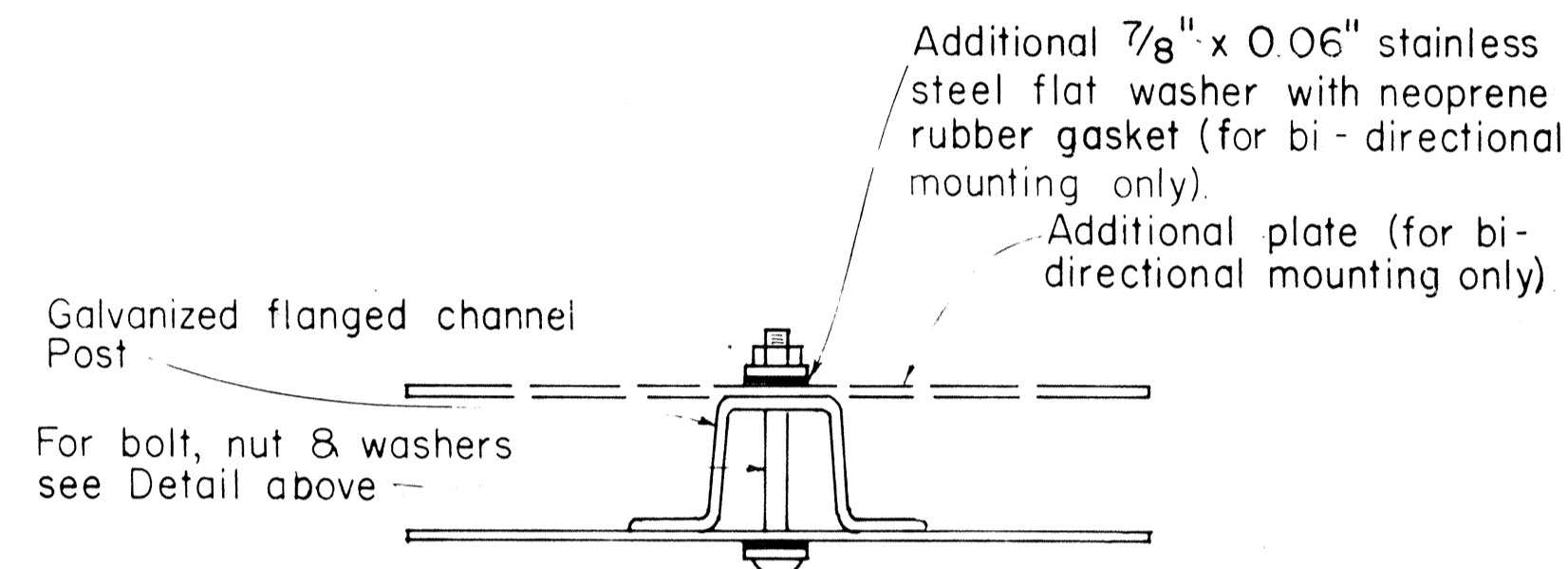
1. Clearance markers (RM-3, RM-4) shall be installed with the edge of the marker in line with the inner edge of the obstruction.
2. (R) or (L) indicates right or left and shall be as shown on the plans.
3. Reflector markers RM-1 and RM-2 shall be:
 - a) Yellow if placed along the left edge of divided 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.



REFLECTOR MARKER MOUNTING DETAIL

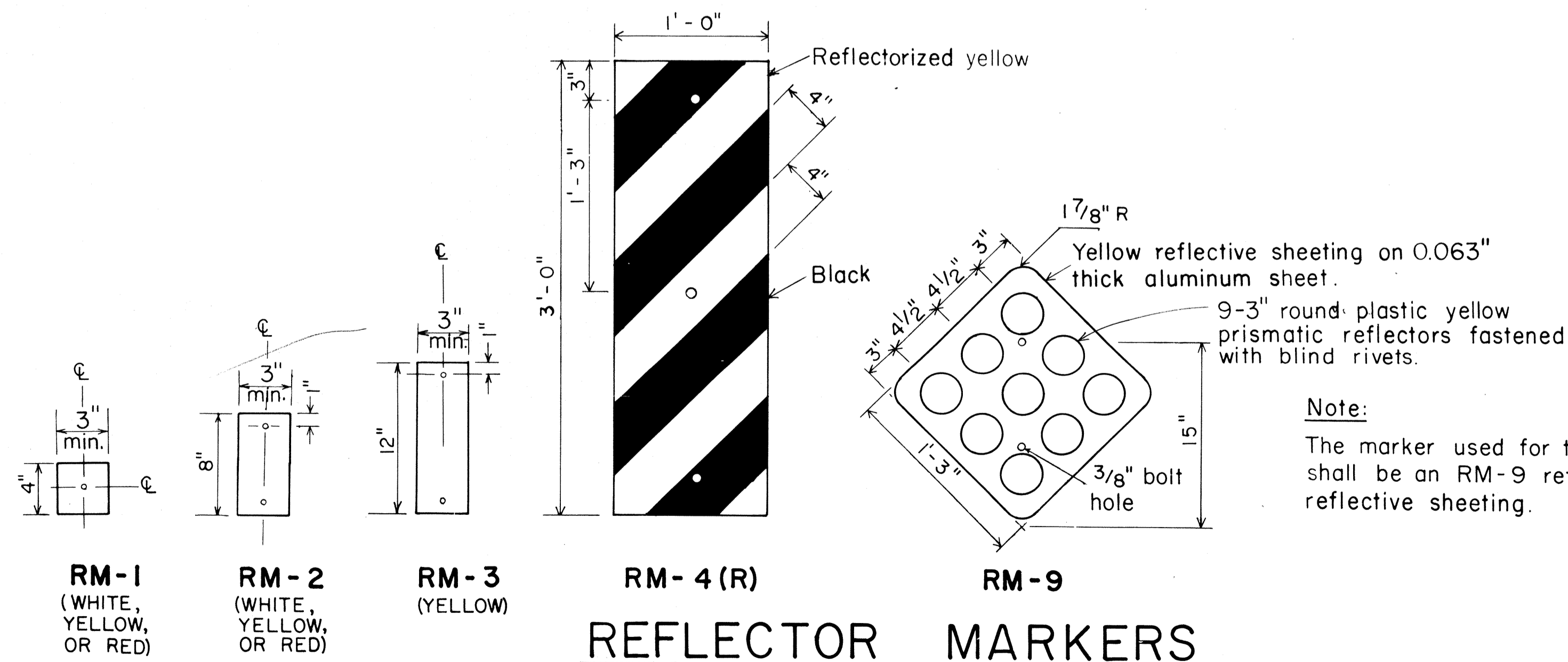


GALVANIZED SQUARE TUBE POST



GALVANIZED FLANGED CHANNEL POST

TYPICAL MOUNTING DETAILS



Note:
The marker used for the end of a roadway shall be an RM-9 reflectorized with red reflective sheeting.

NO.	REVISION	APPROVED BY	DATE
1	Revised Mounting Details	H.H.	4/23/80
2	Revised General Notes, Mounting Details and Reflector Markers.	P.D.	9-28-83
3	Eliminated White for RM-4	P.D.	1-30-88

APPROVAL RECOMMENDED:
Erich Tanaka 11/21/77
TRAFFIC ENGINEER DATE

APPROVED:
Herbert S. Sakai 11/16/77
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS REFLECTOR MARKERS

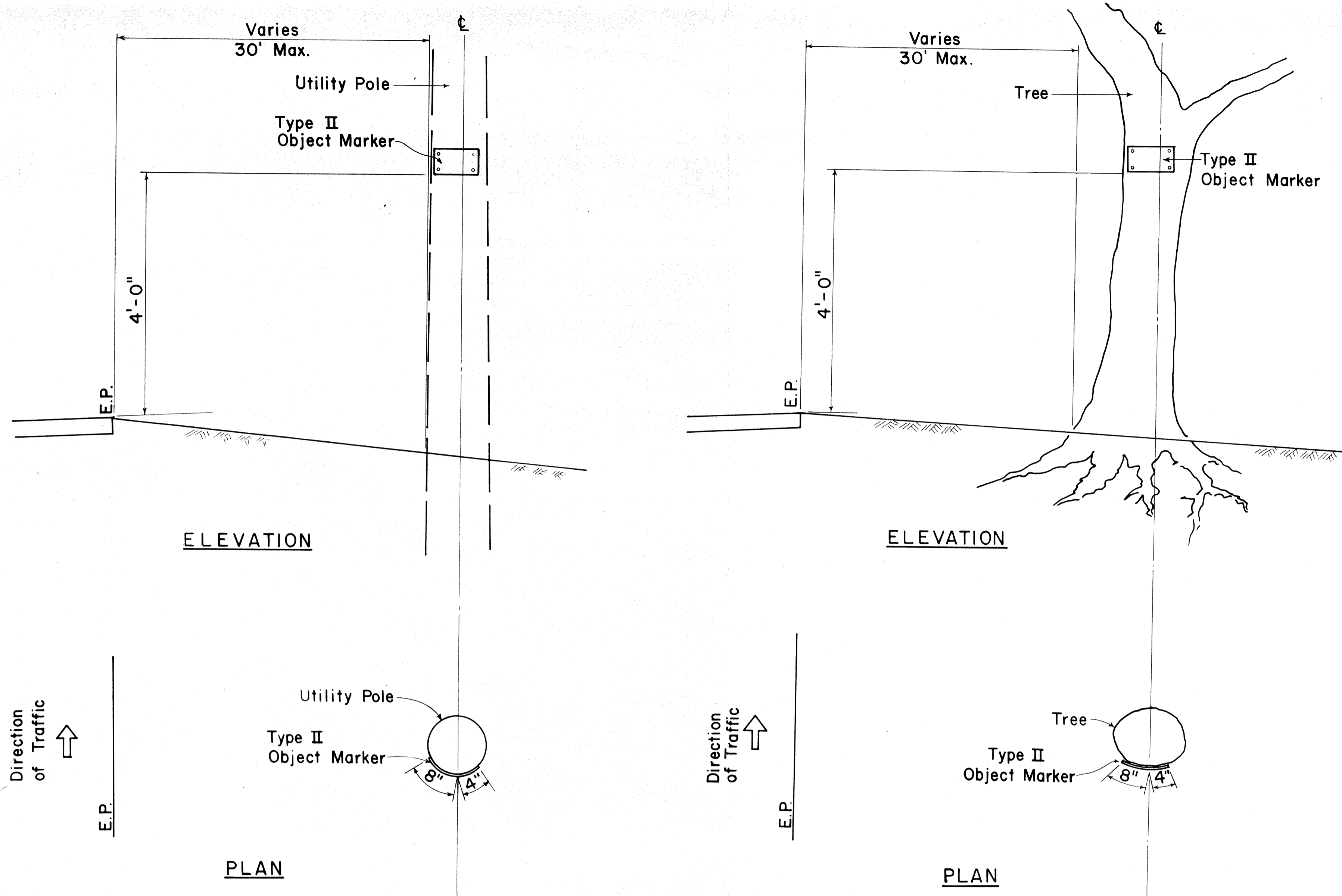
Not to scale June, 1977
SHEET NO. 8 OF 15 SHEETS DT 110

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

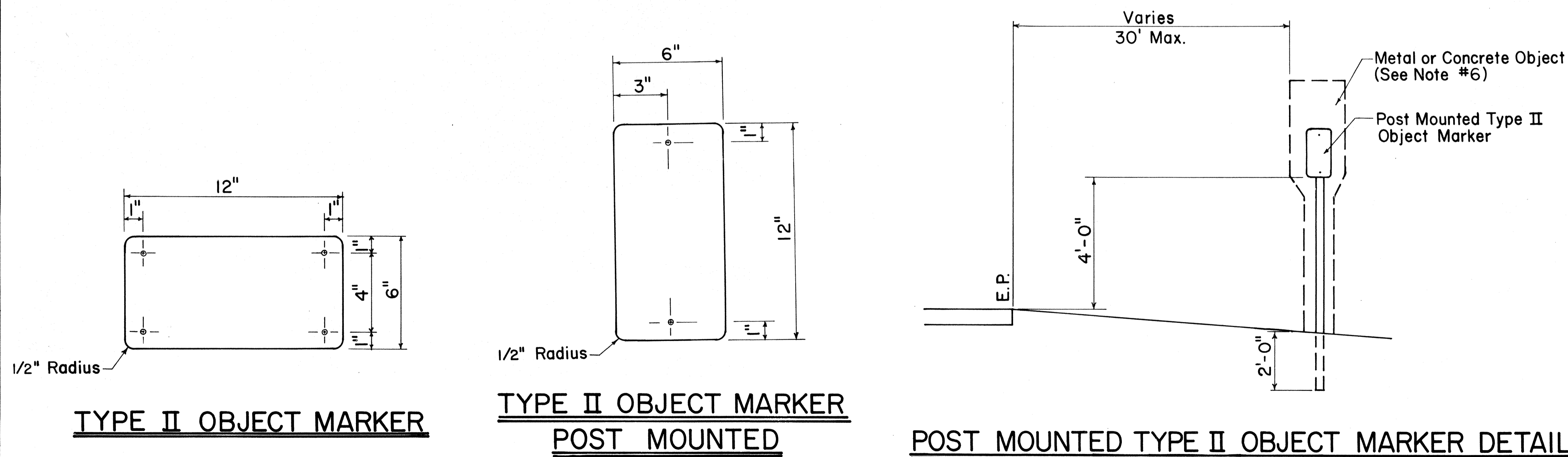
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	24	30

GENERAL NOTES

- 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.
- 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.
- Type II Object Markers shall be mounted on utility poles and trees with 1 3/4" galv. roofing nails (4 ea.).
- 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).
- Type II Object Markers for utility poles and trees, etc., shall be made of amber reflective sheeting material overlayed on 0.020" aluminum sheeting.
- 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:
 - It shall consist of amber reflective sheeting material overlayed on 0.063" thick sheet aluminum backing of the dimensions shown on the plans.
 - 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"x1 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:

Eiichi Tanaka 5/30/83
TRAFFIC ENGINEER DATE

APPROVED:

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

NO.	REVISION	APPROVED BY	DATE

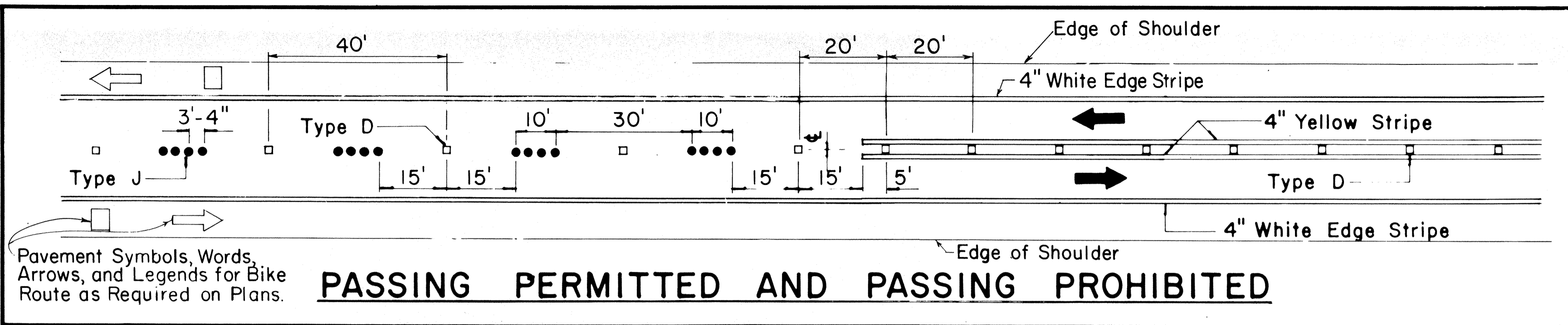
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
TYPE II OBJECT MARKERS

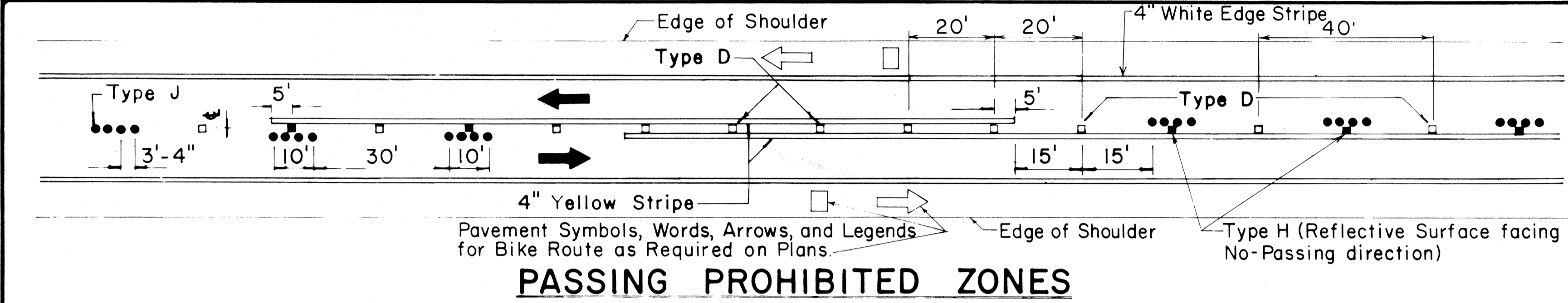
Scale: Not to scale Date: March 1983
SHEET NO. 9 OF 15 SHEETS DT III

ORIGINAL PLAN
DESIGNED BY
NOTE BOOK
QUANTITIES BY
CHECKED BY

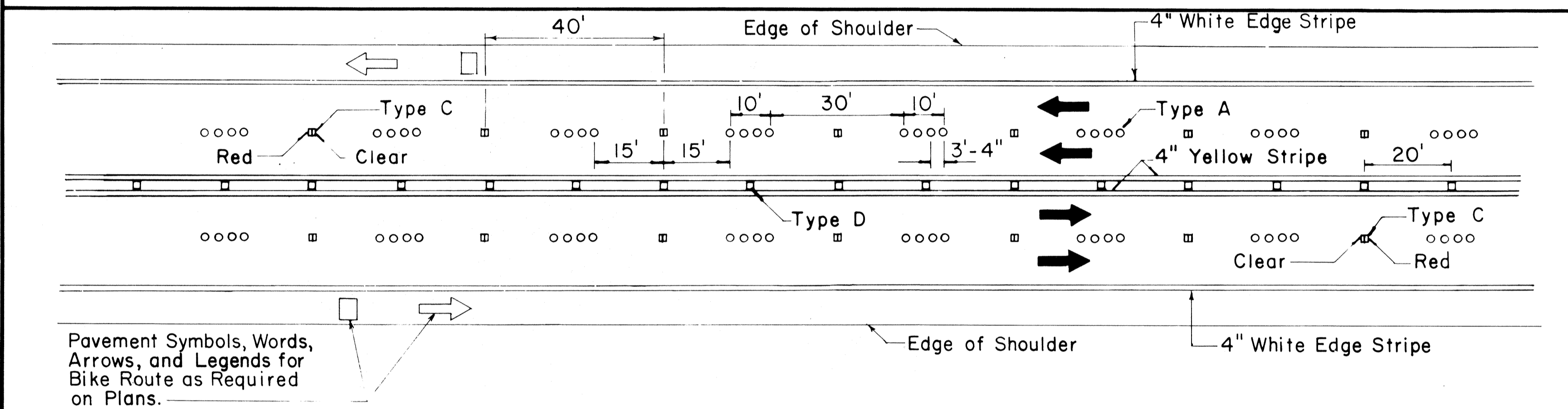
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	304A-01-87M	1987	25	30



PASSING PERMITTED AND PASSING PROHIBITED

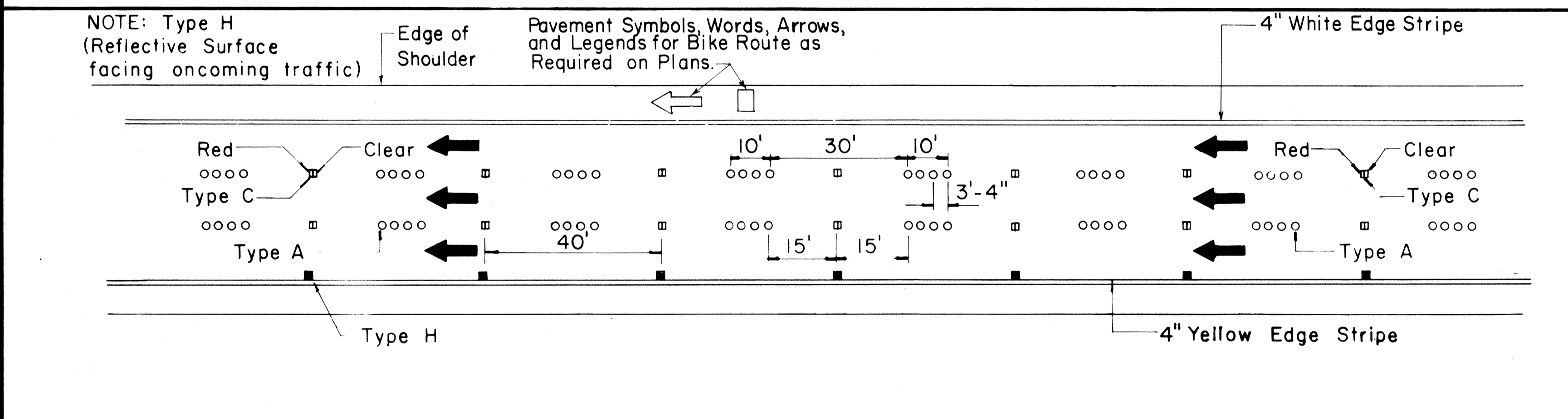


PASSING PROHIBITED ZONES

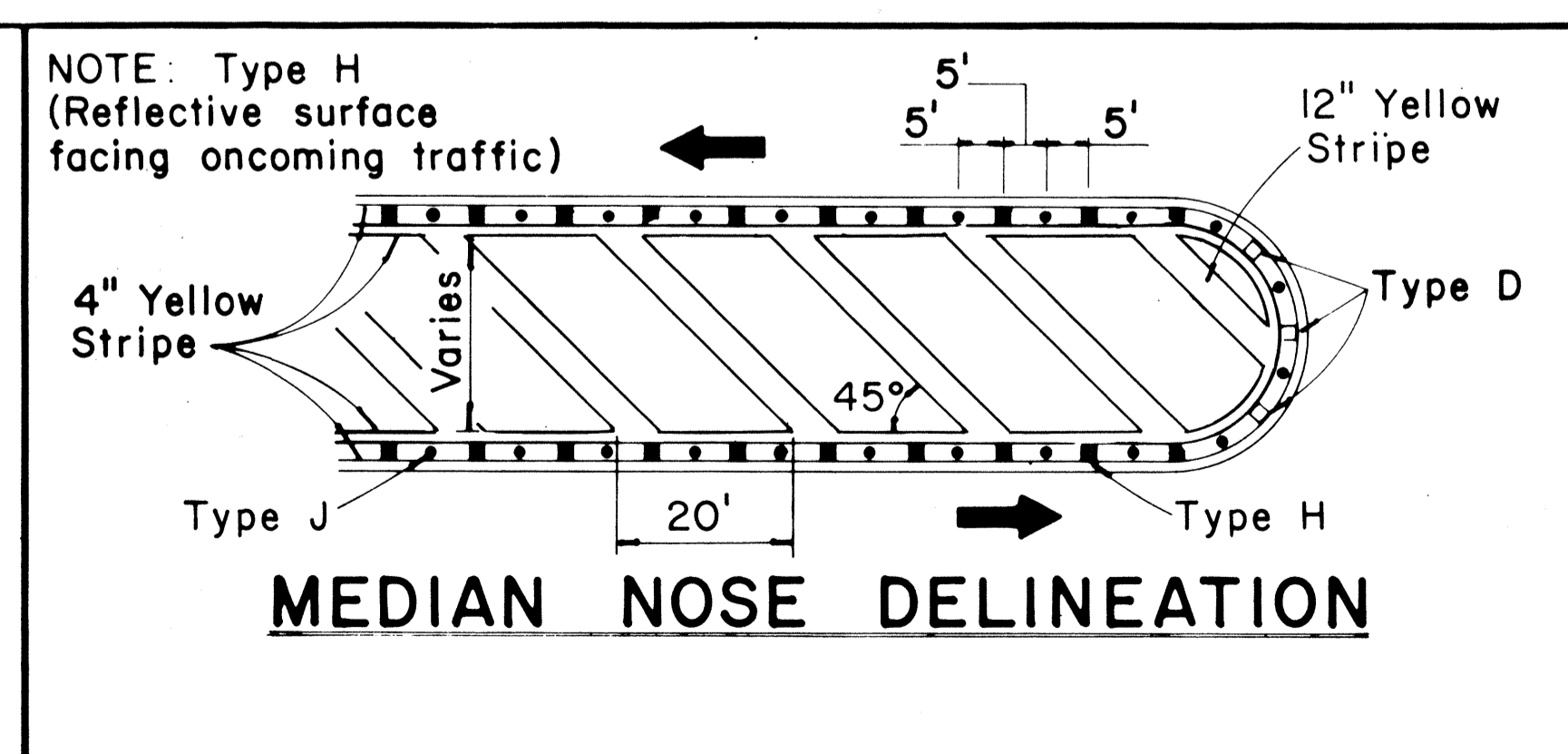
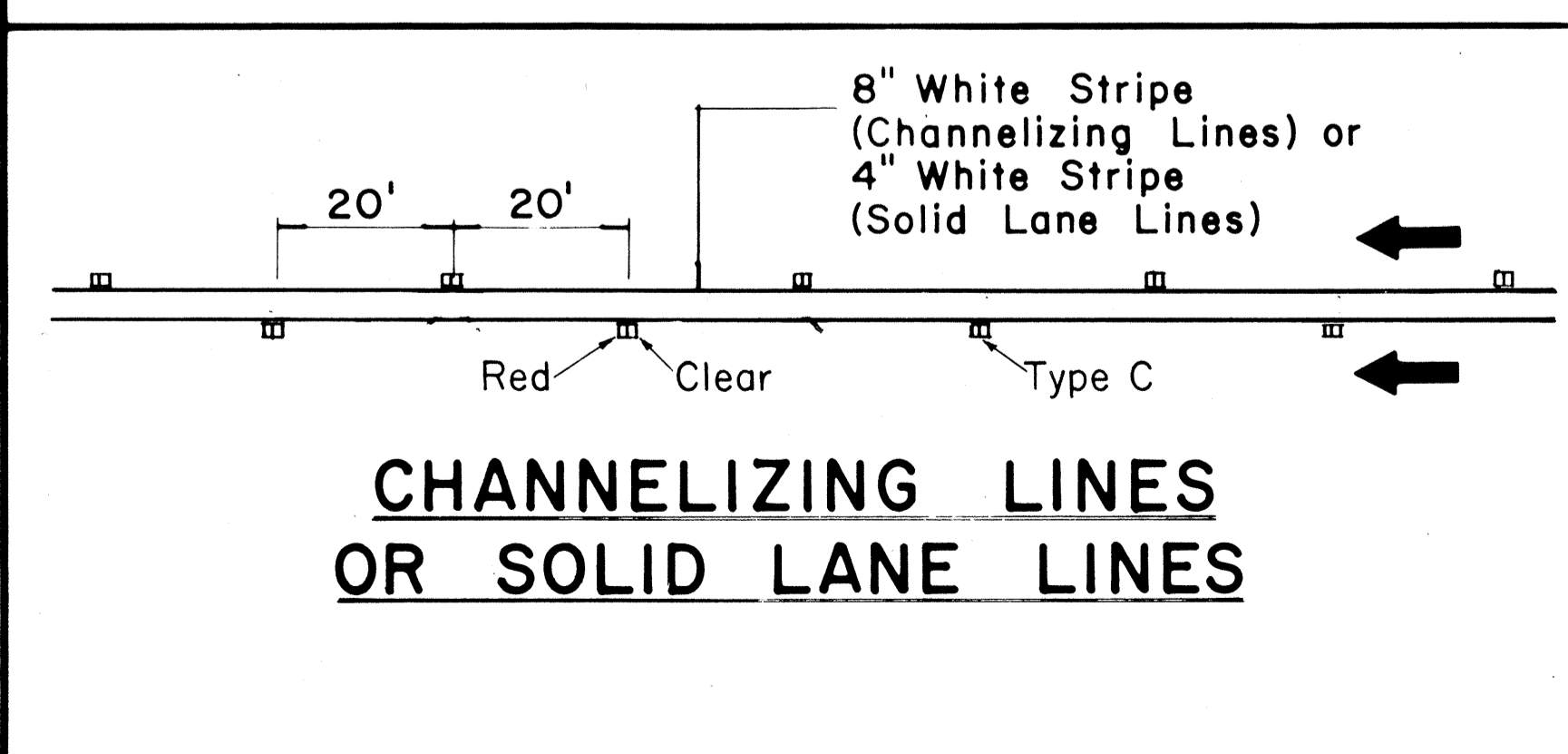


TWO - LANE

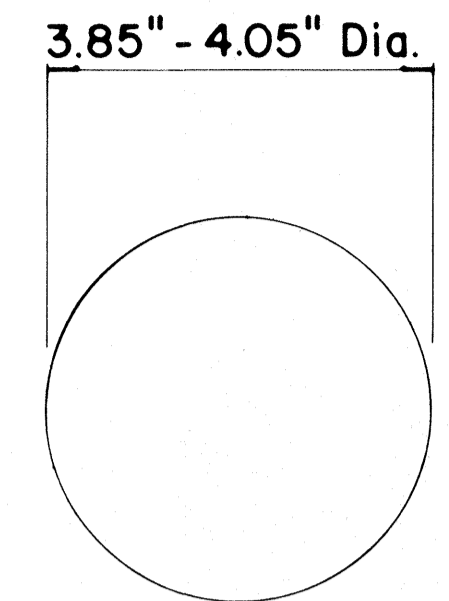
MULTI - LANE



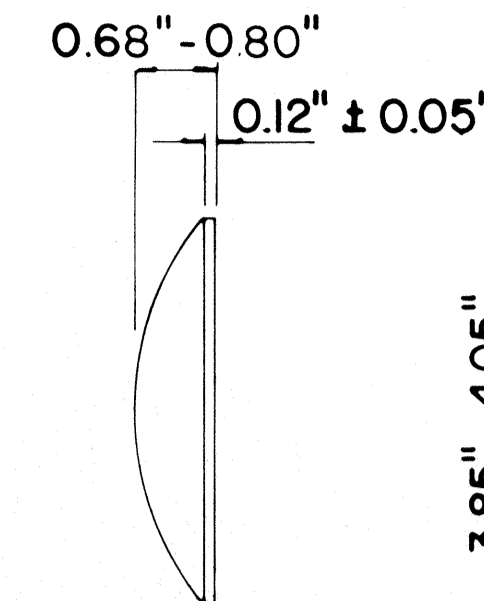
DIVIDED HIGHWAY AND FREEWAY



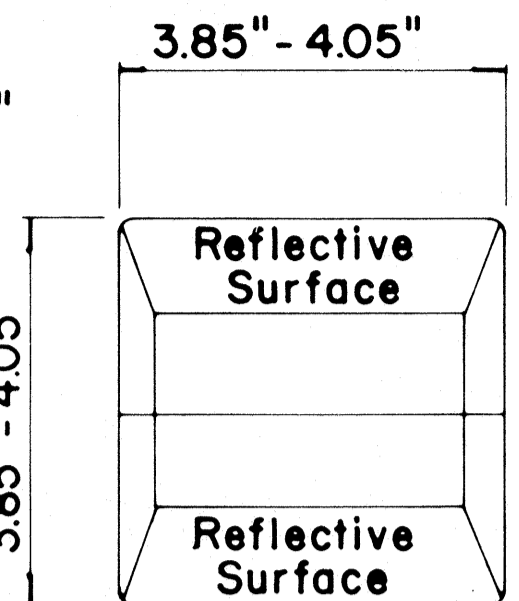
MISCELLANEOUS



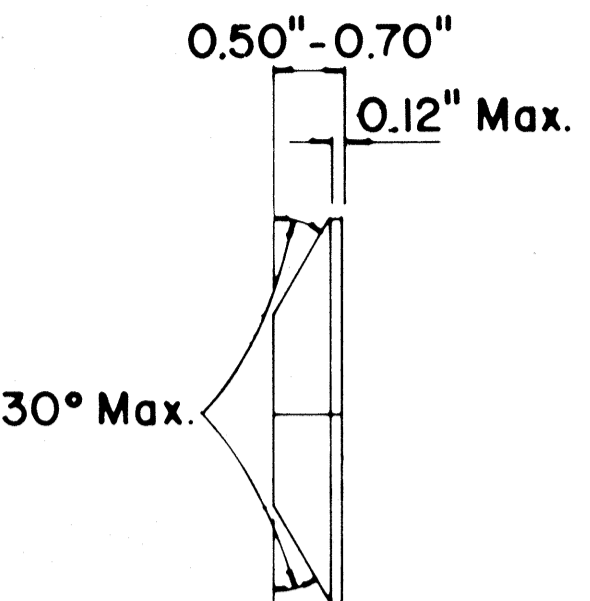
TYPE A
NON-REFLECTIVE WHITE MARKER



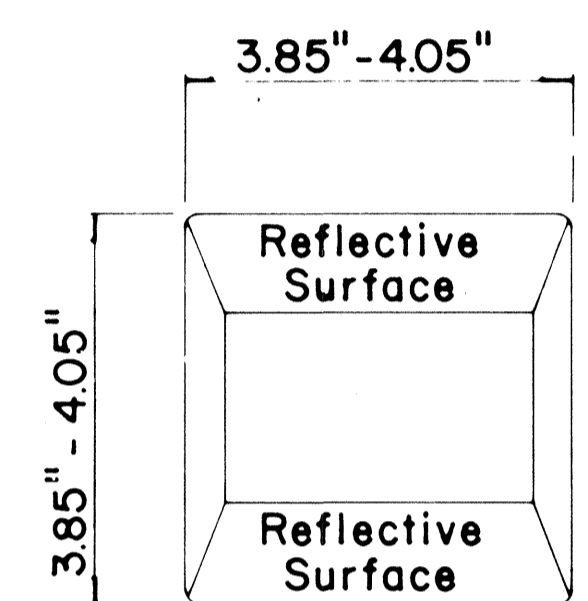
TYPE J
NON-REFLECTIVE YELLOW MARKER



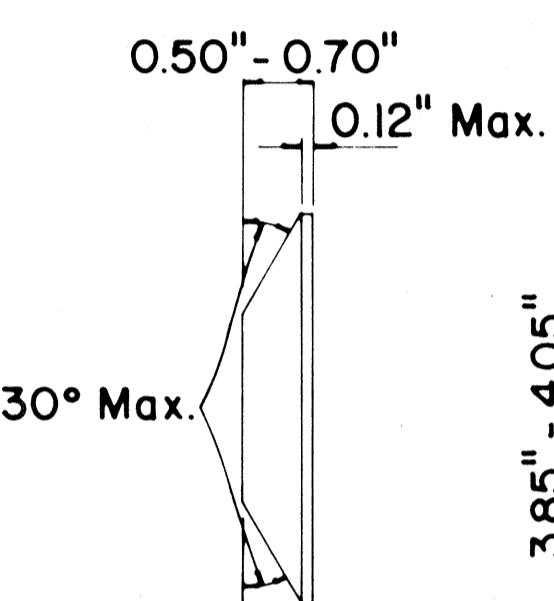
TYPE C
RED-CLEAR REFLECTIVE MARKER



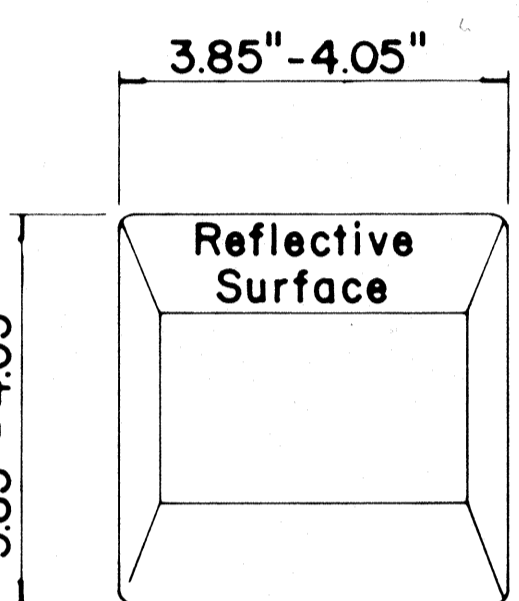
TYPE H
ONE-WAY YELLOW REFLECTIVE MARKER



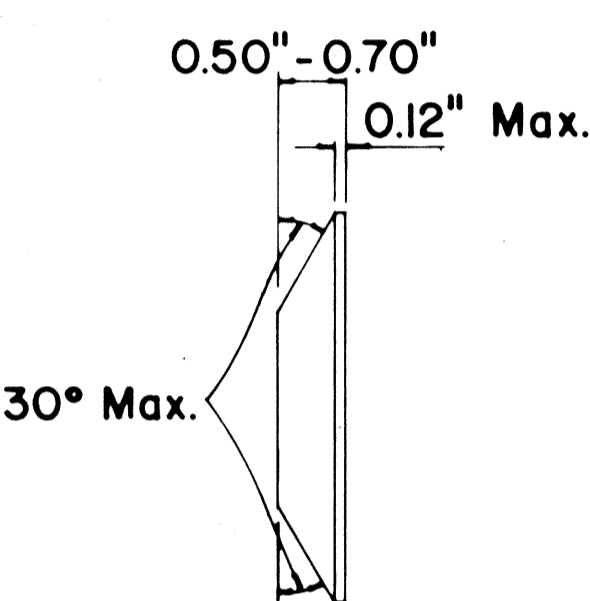
TYPE D
TWO-WAY YELLOW REFLECTIVE MARKER



TYPE A
NON-REFLECTIVE WHITE MARKER



TYPE C
RED-CLEAR 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:
Harold J. Zekich 7/24/78
 ASSISTANT CHIEF, ENGINEERING DATE

No.	REVISION	APPROVED BY	DATE
1	Supersedes DT 300 approved 11/18/71.	H.T.	7/24/78
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
4	Revised Channelizing Lines or Solid Lane Lines.	H.T.	7/18/85

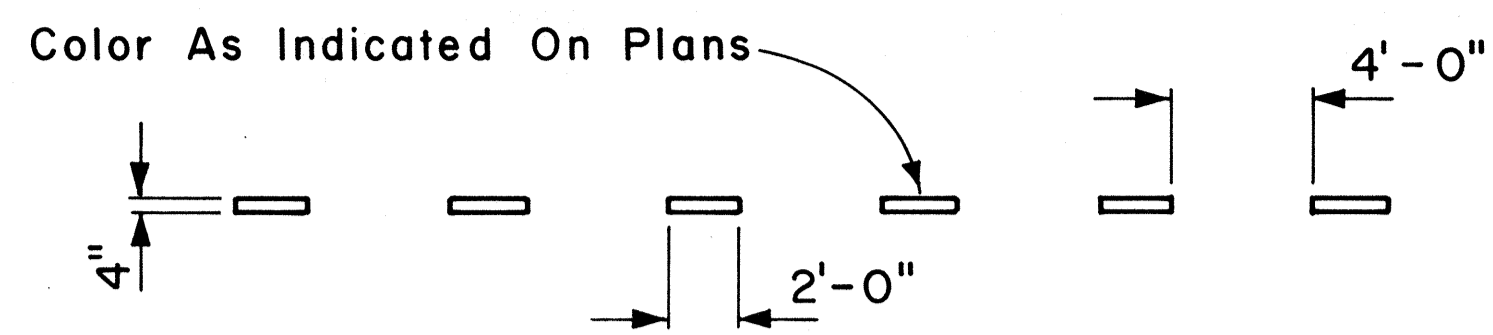
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
RAISED PAVEMENT MARKERS
AND STRIPING

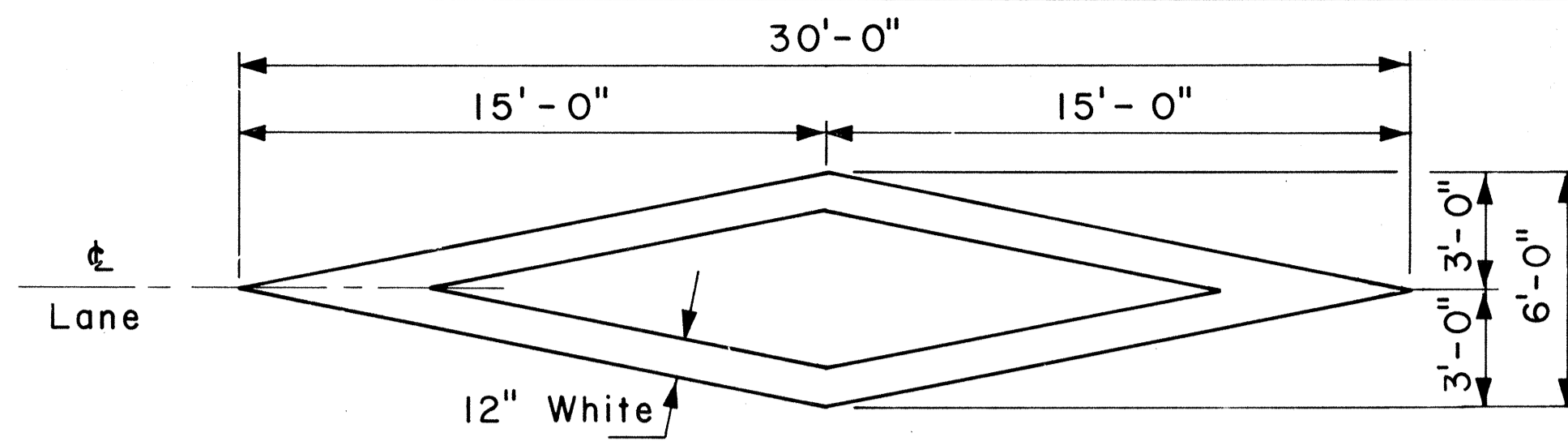
Not to Scale July 1978
 SHEET No. 10 OF 15 SHEETS DT 300

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	26	30



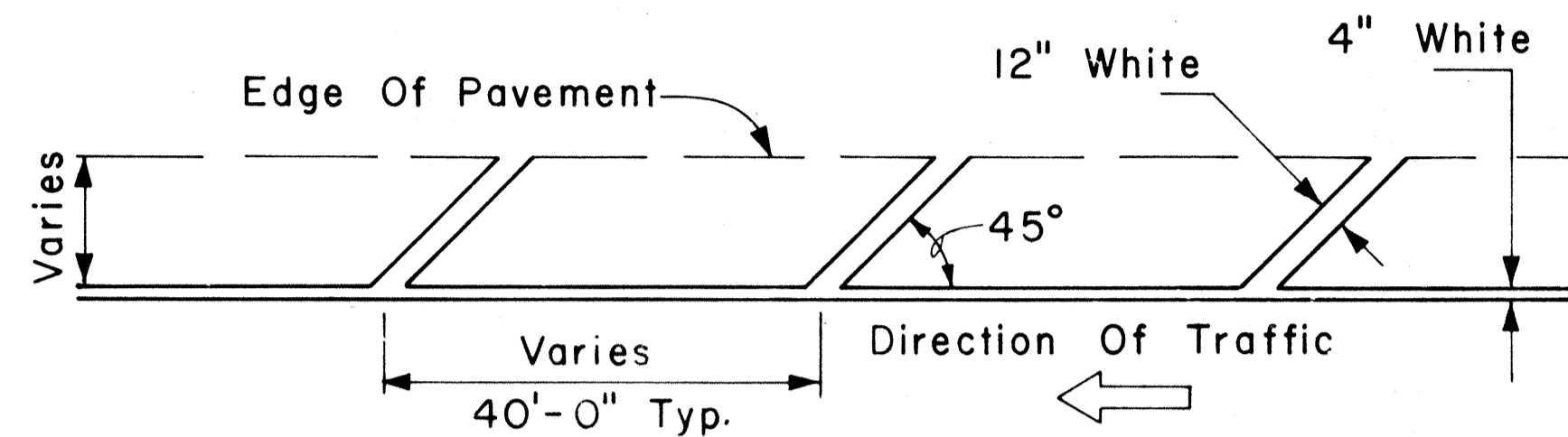
4" GUIDE LINE



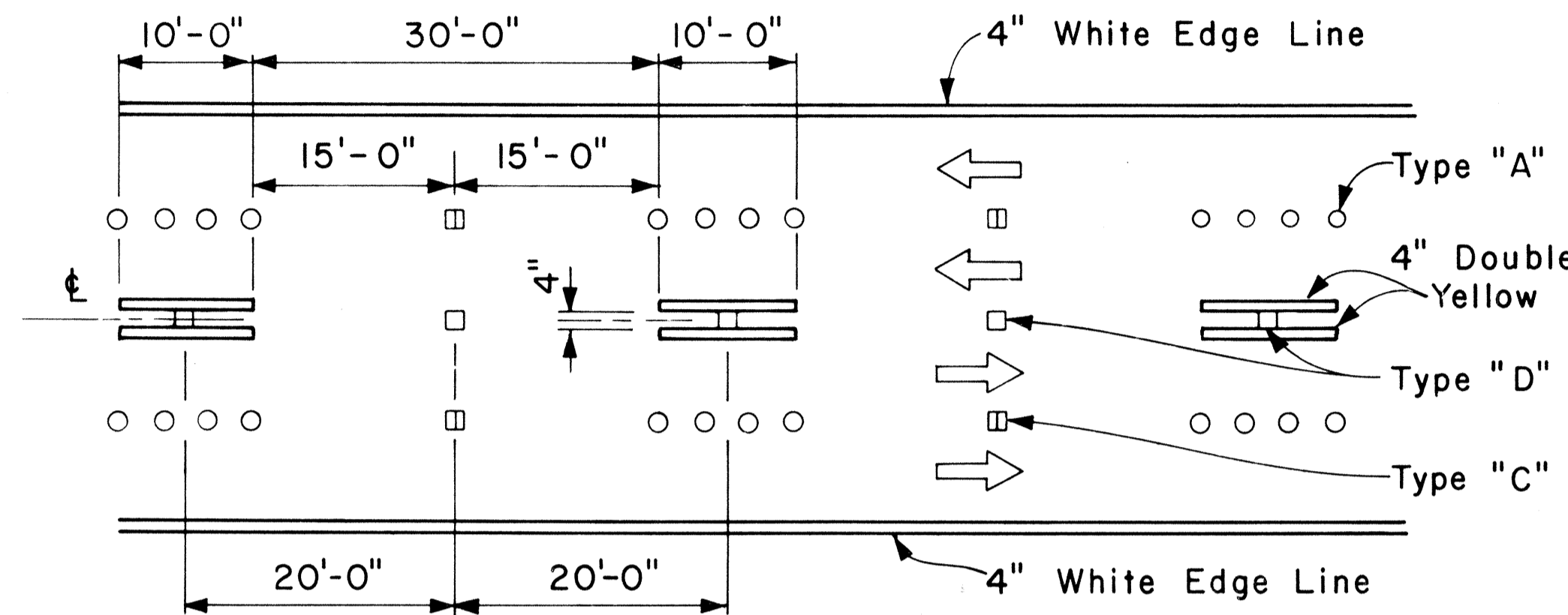
PAVEMENT DIAMOND

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.

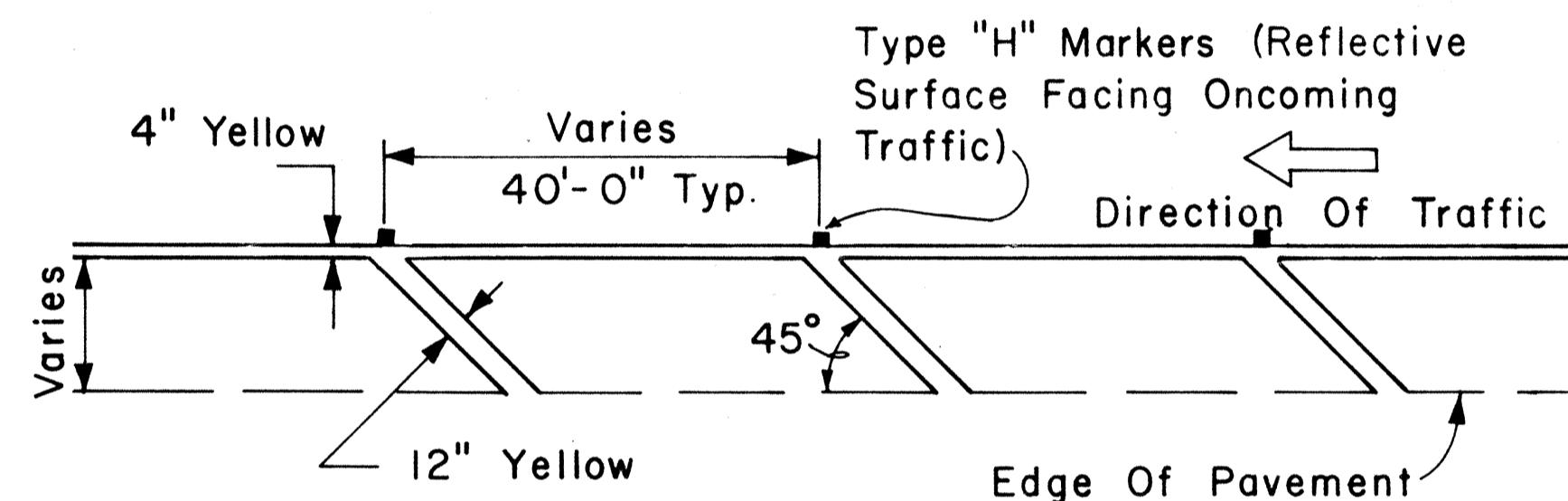


TRANSVERSE RIGHT SHOULDER MARKING

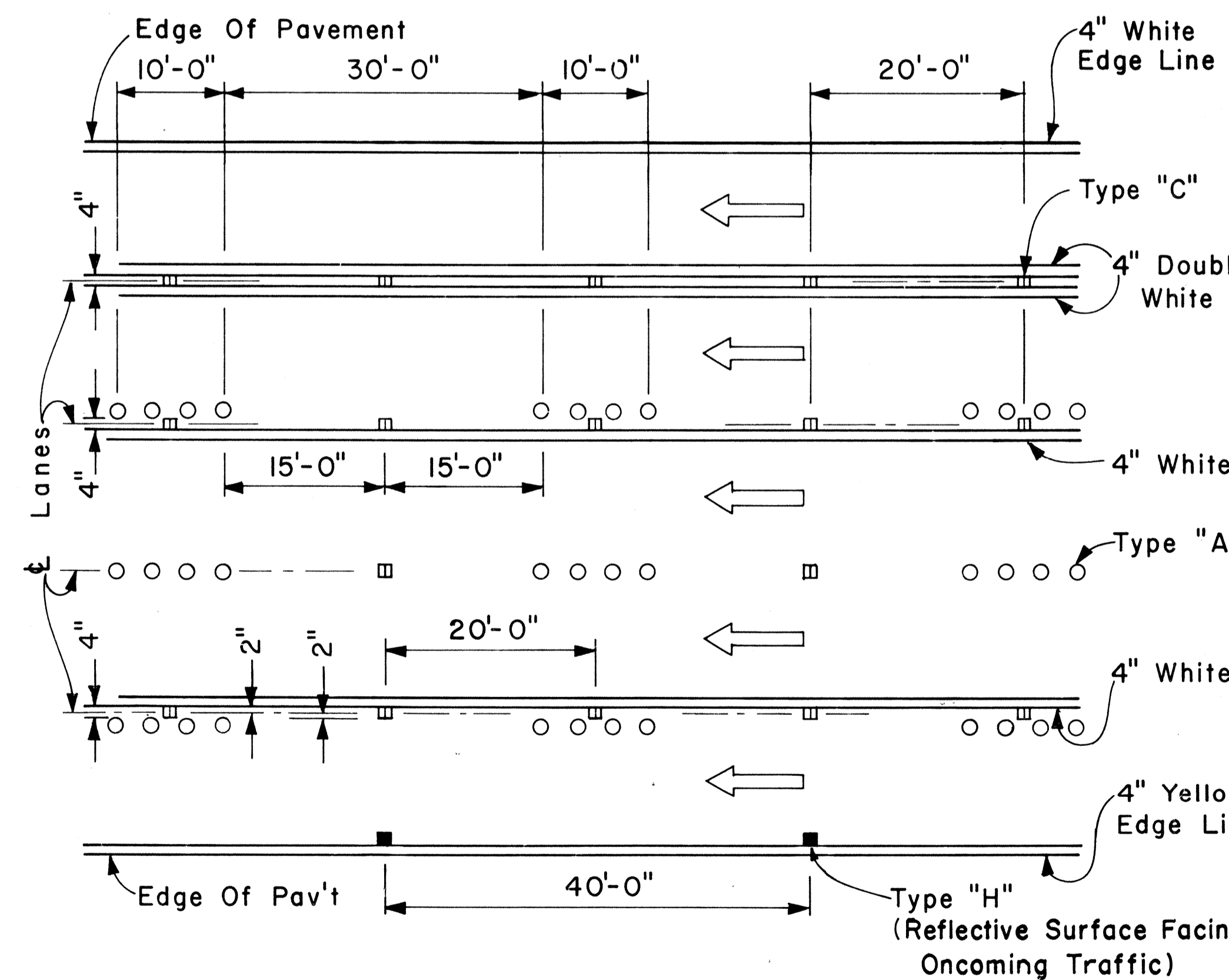


NOTE: Traffic Cone Usage Required.

MULTI-LANE REVERSIBLE LANES



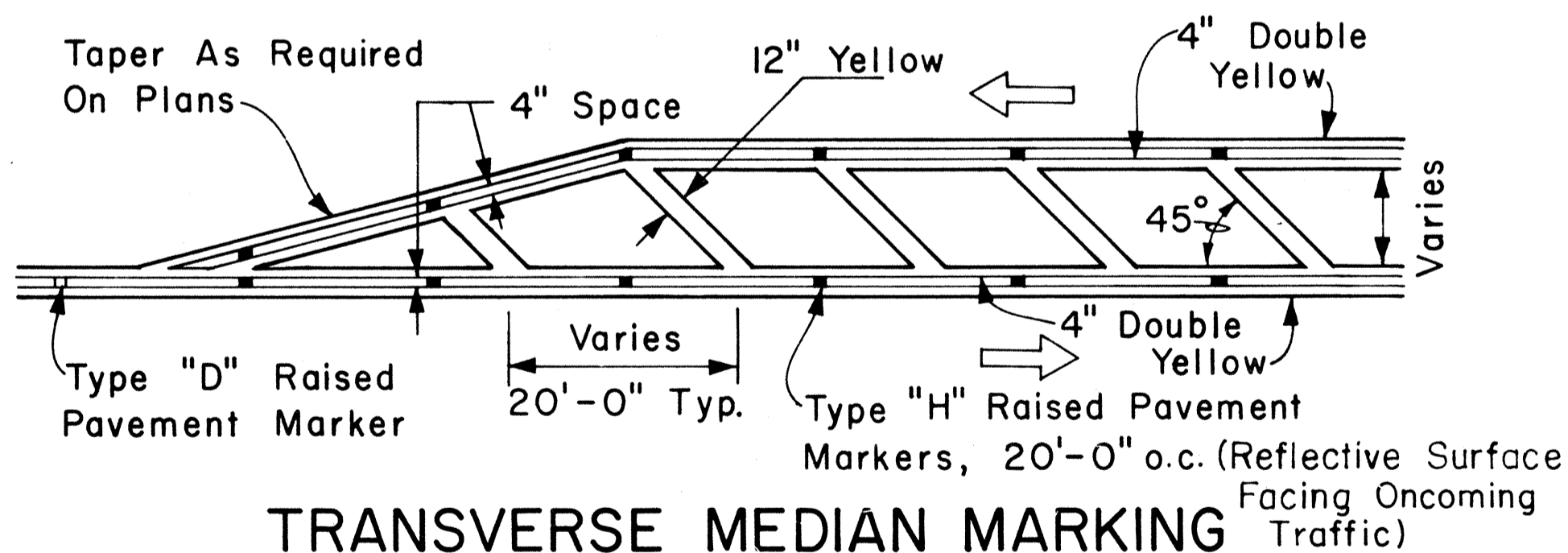
TRANSVERSE LEFT SHOULDER MARKING



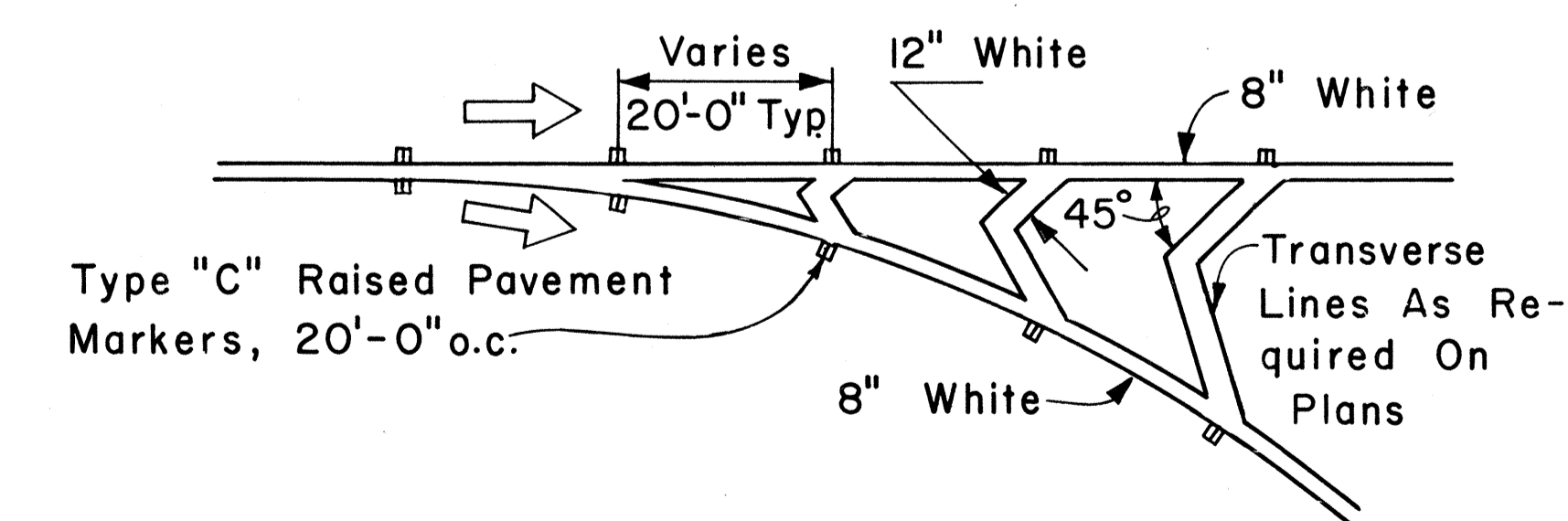
MULTI-LANE LANE CHANGE RESTRICTION ZONES

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

APPROVED:
Robert S. Sakaihi 5/3/78
 ASSISTANT CHIEF, ENGINEERING DATE



TRANSVERSE MEDIAN MARKING



CHANNELIZING ISLAND

NO.	REVISION	APPROVED BY	DATE
1	Revised Transverse left Shoulder Marking, Channelizing Island & Lane Change Restriction Zones.	<i>E.T.</i>	9/12/85

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS

MISCELLANEOUS
 PAVEMENT MARKINGS

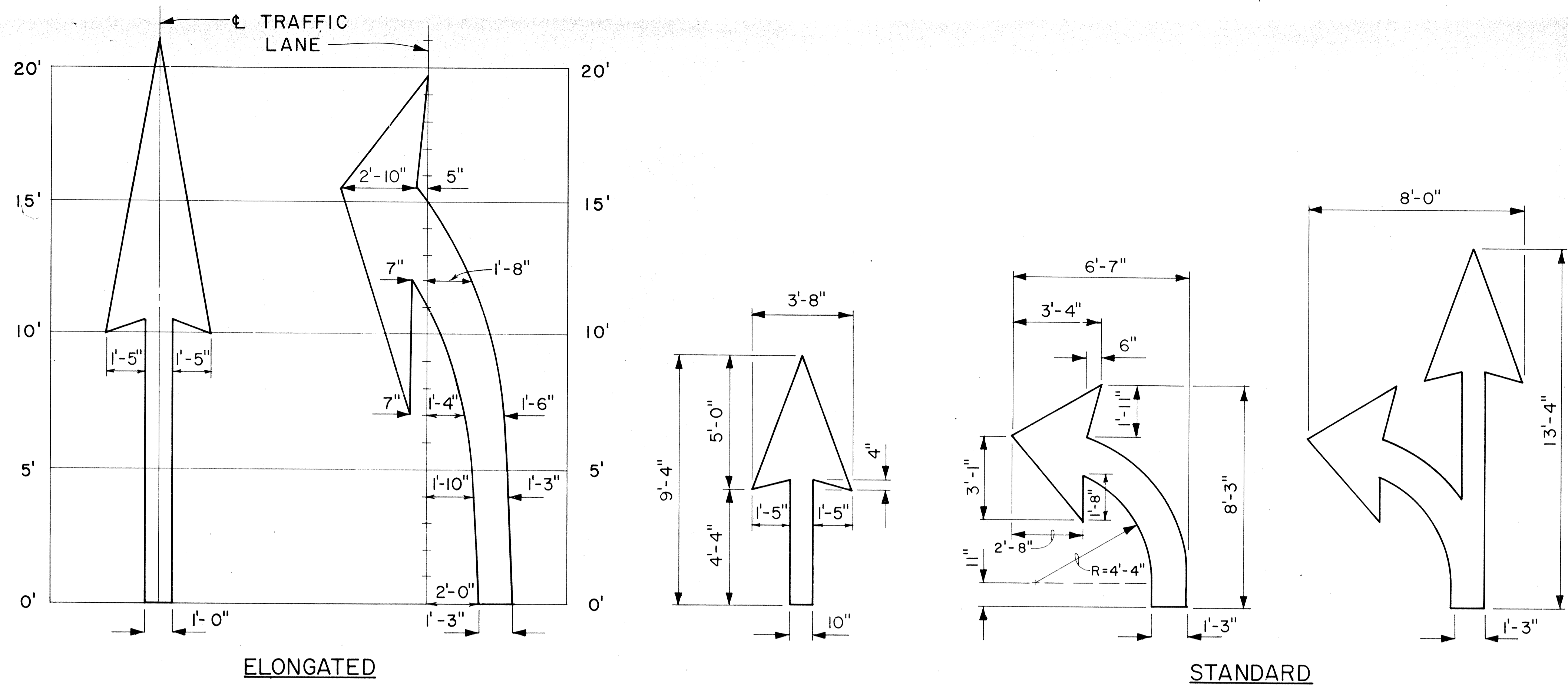
Scale: Not to Scale Date: April, 1978
 SHEET No. 11 OF 15 SHEETS DT 302

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	27	30

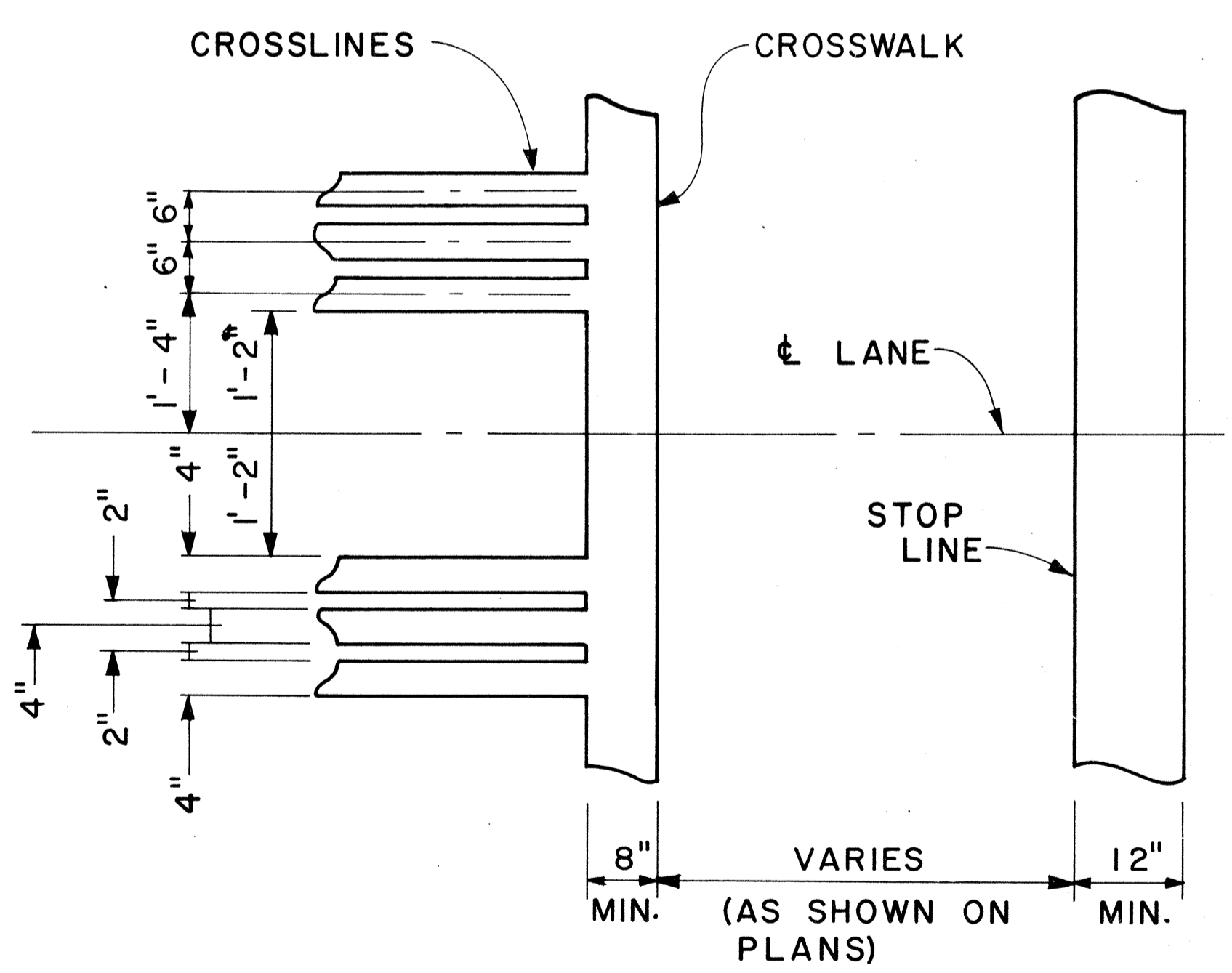
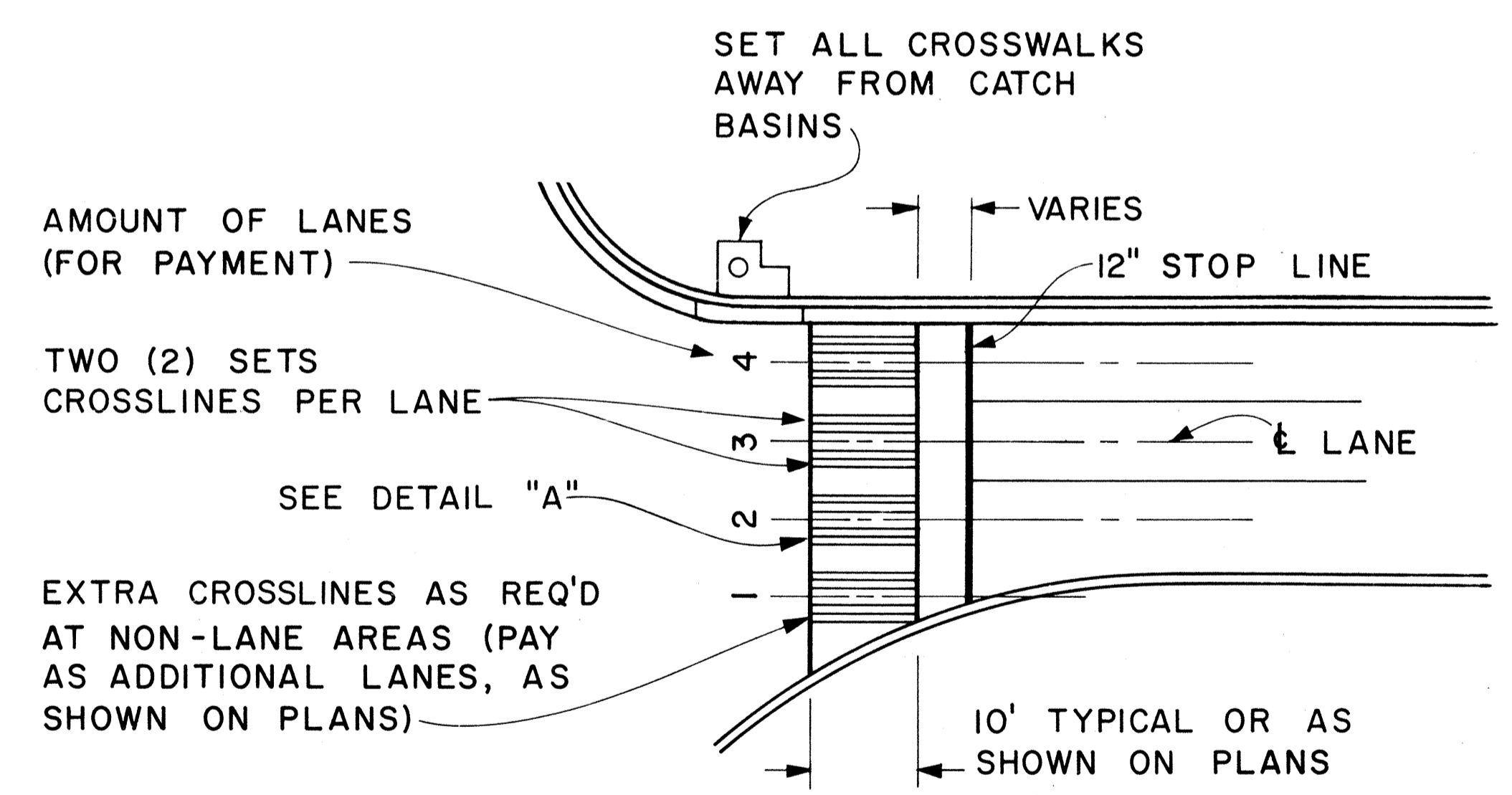
GENERAL NOTES:

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.



PAVEMENT ARROWS

Scale: 3/8" = 1'



CROSSWALK & STOP LINE

Scale: Not to Scale

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

APPROVED:
Harbert S. Zaleski 5/3/78
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION

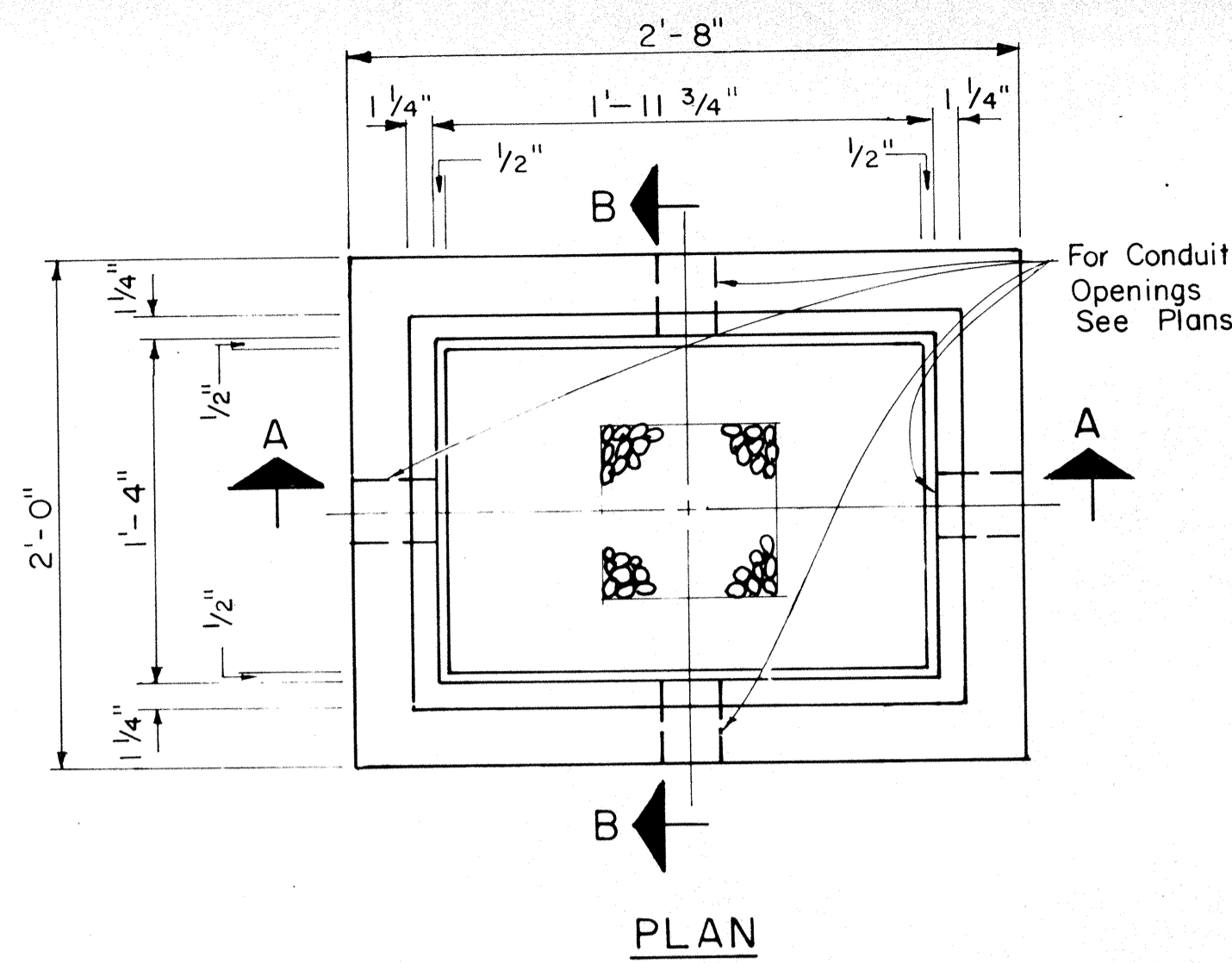
STANDARD DETAILS

MISCELLANEOUS
 PAVEMENT MARKINGS

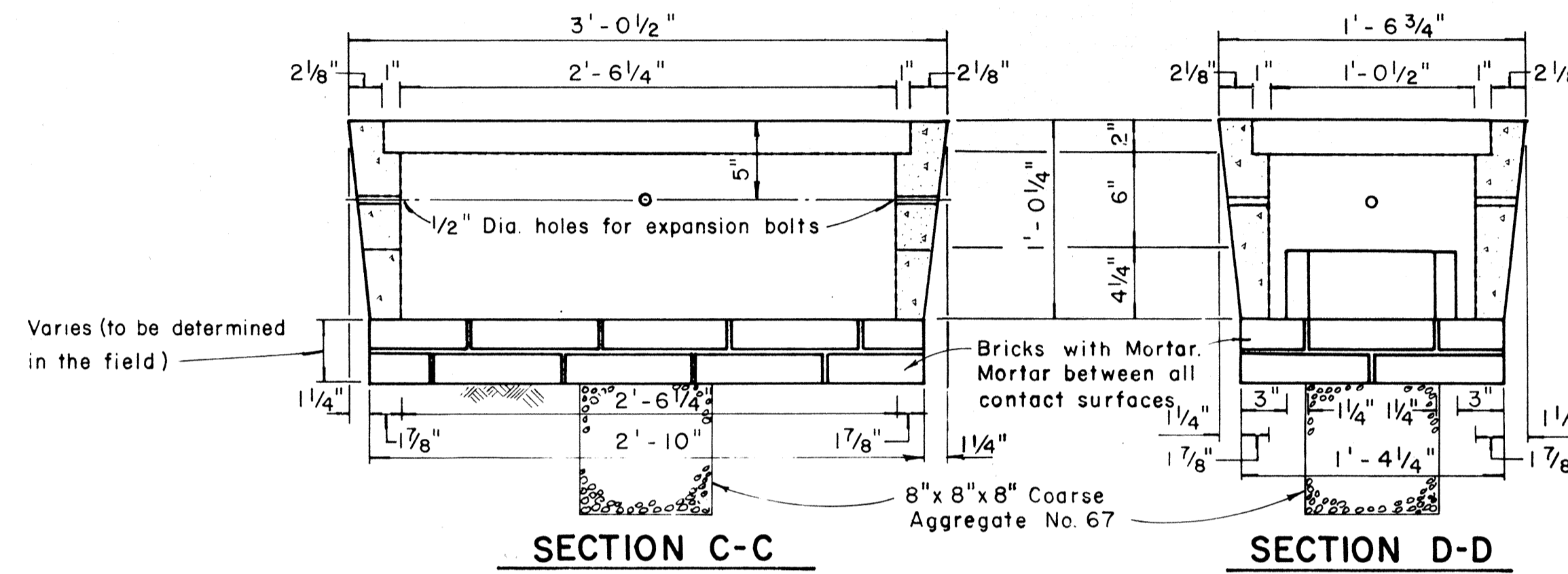
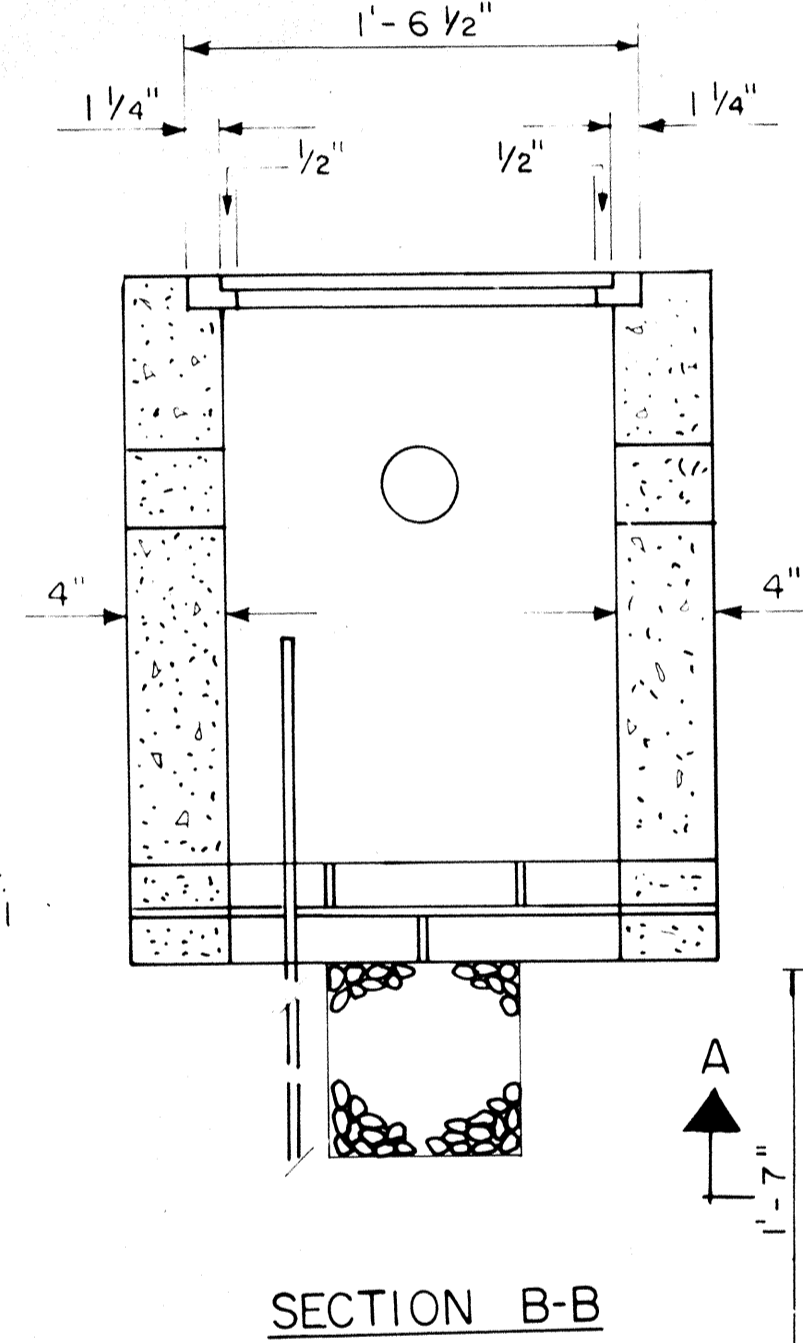
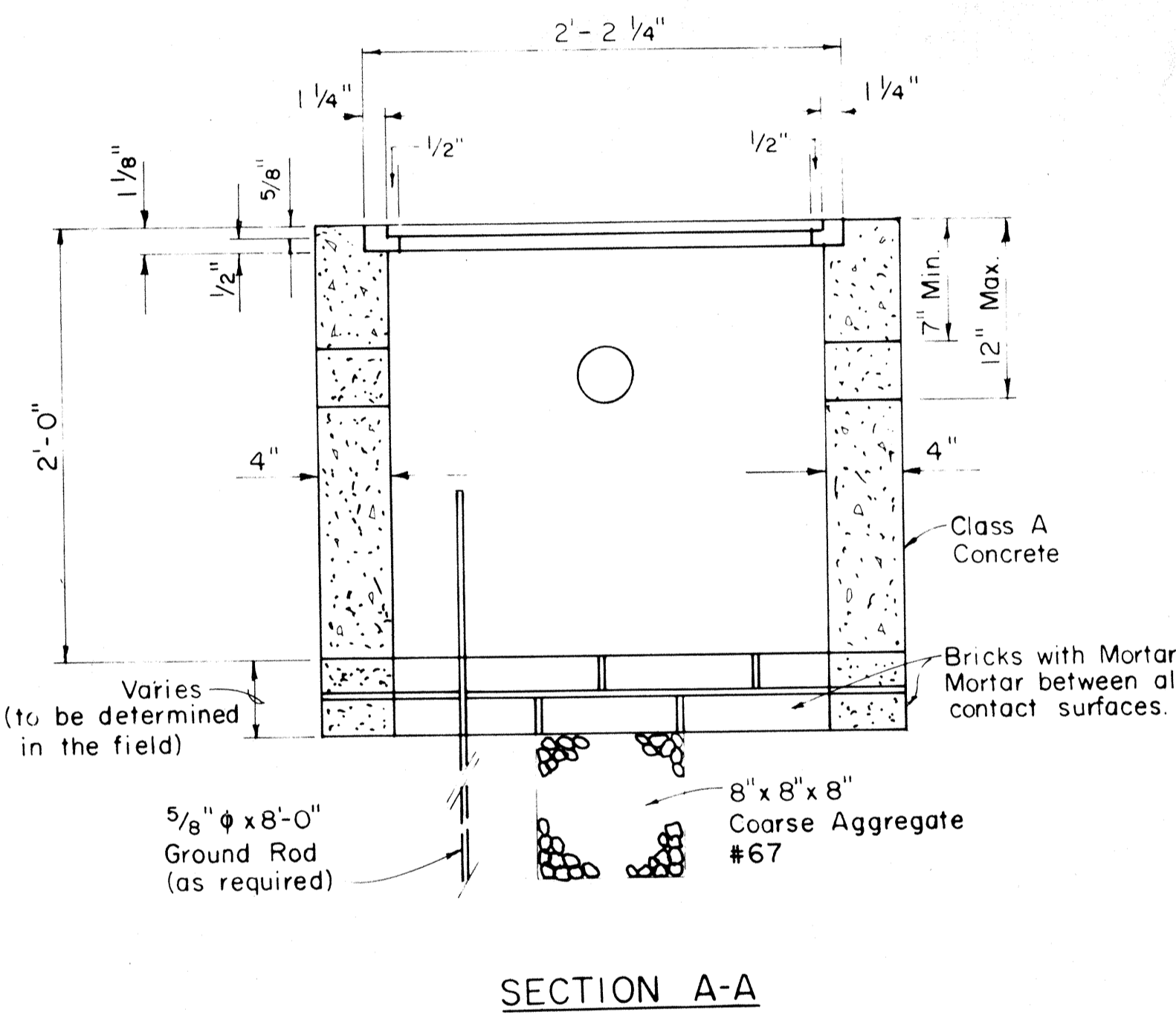
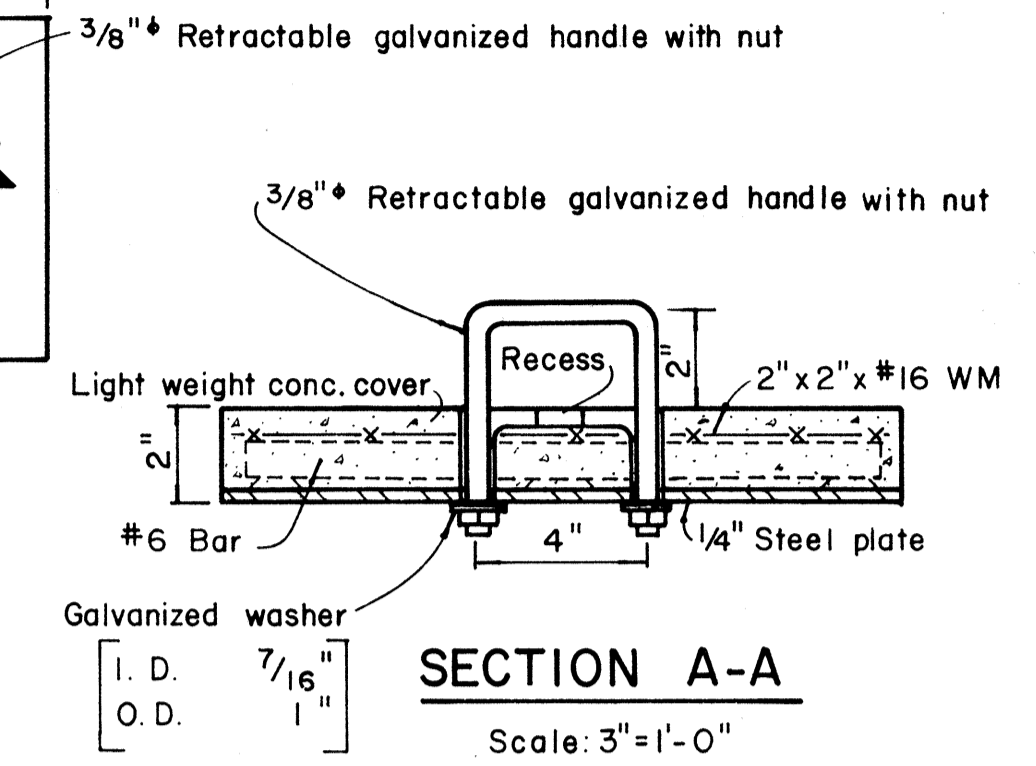
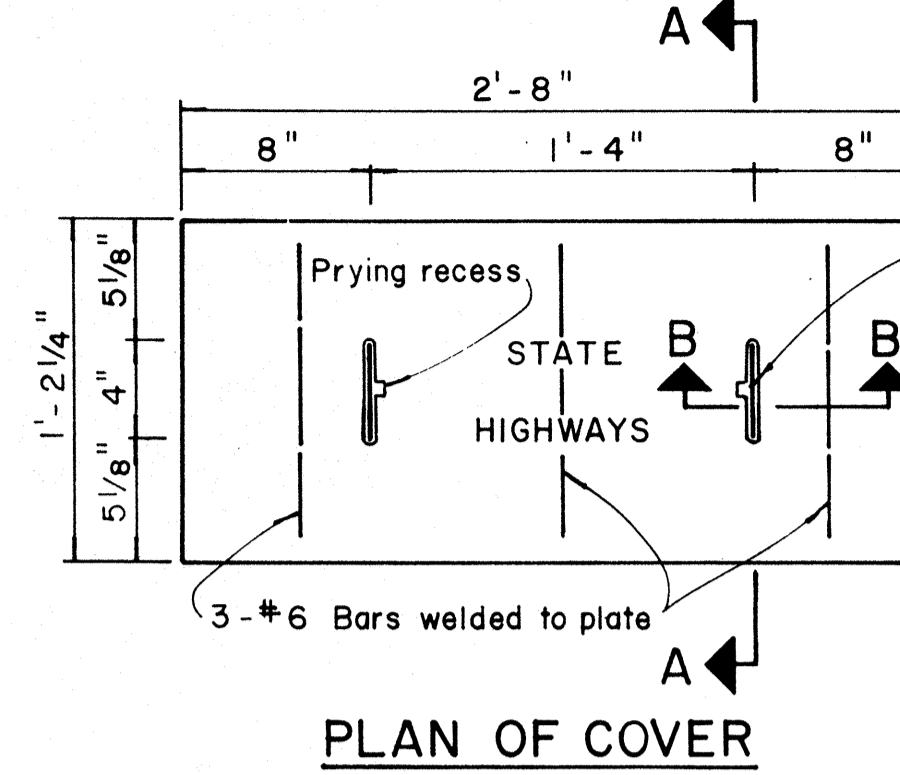
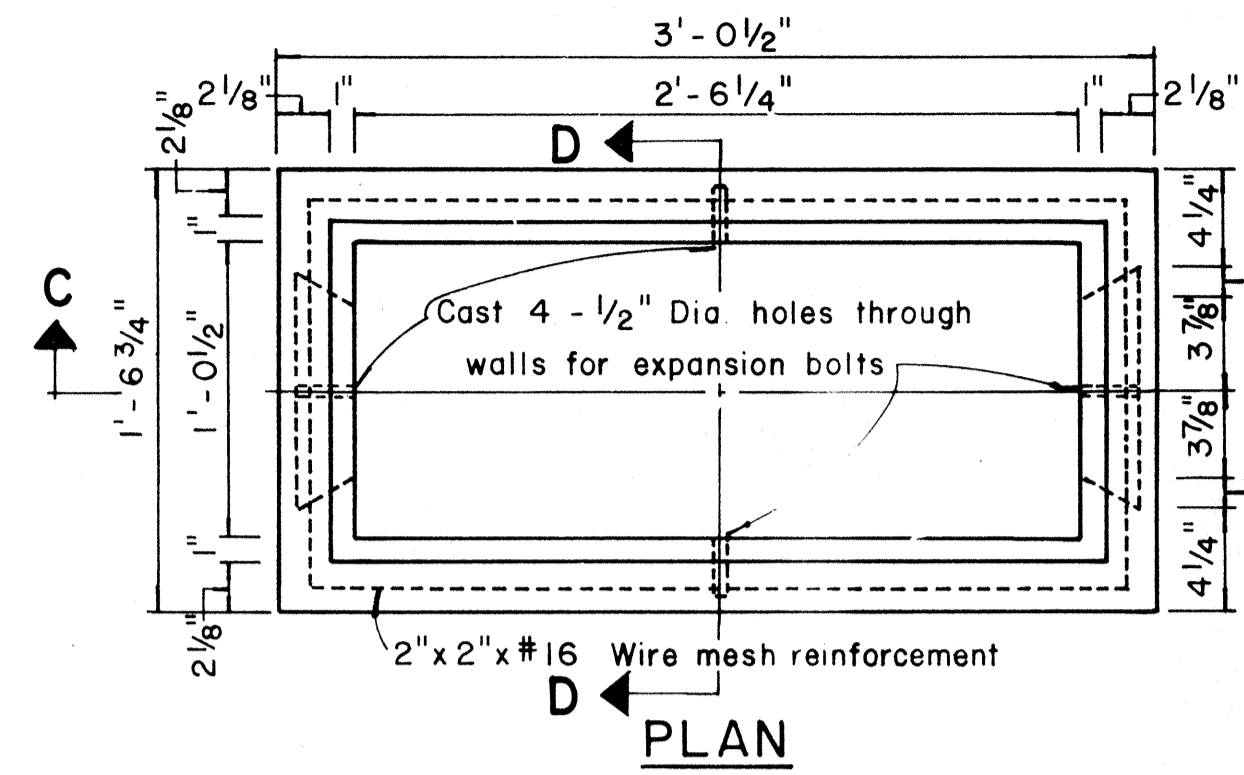
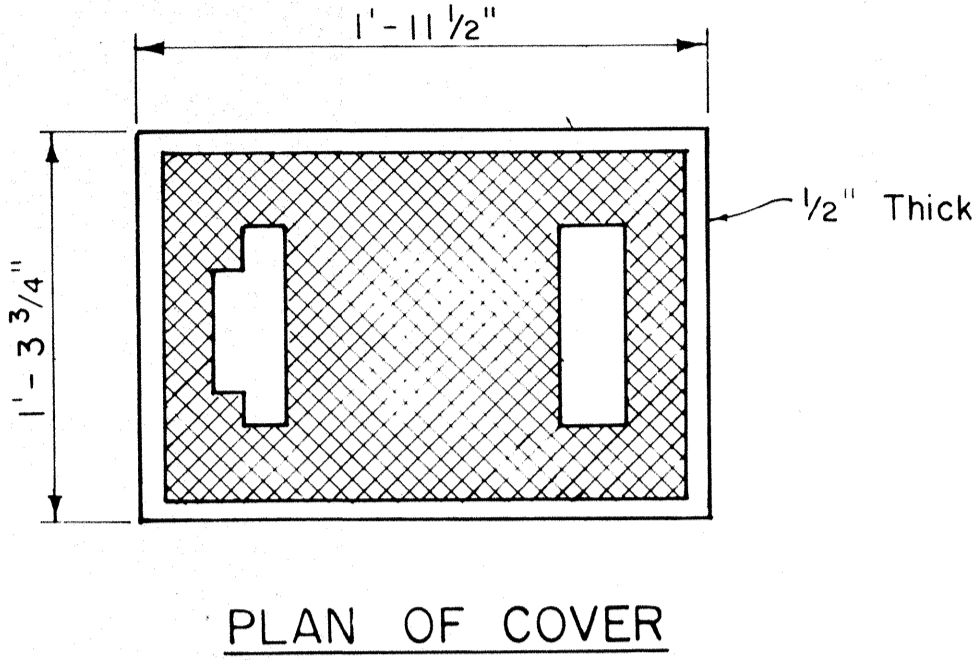
Scale: As Shown Date: March, 1978
 SHEET No. 12 OF 15 SHEETS DT 306

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

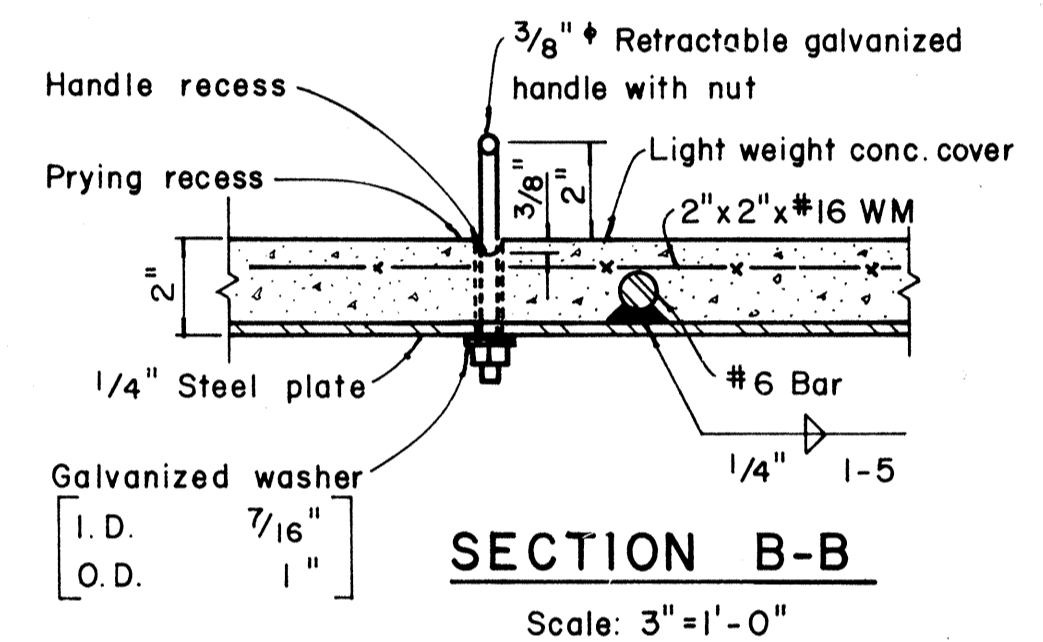
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	29	30



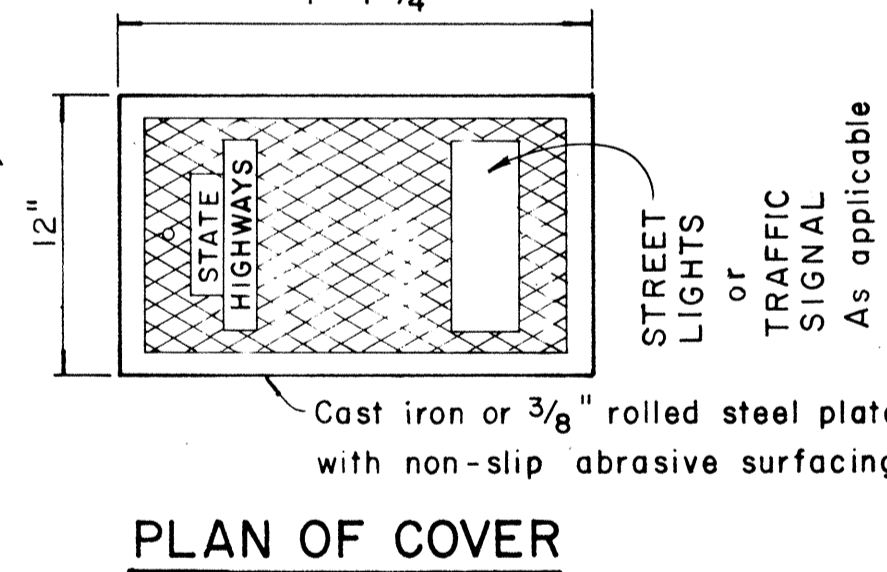
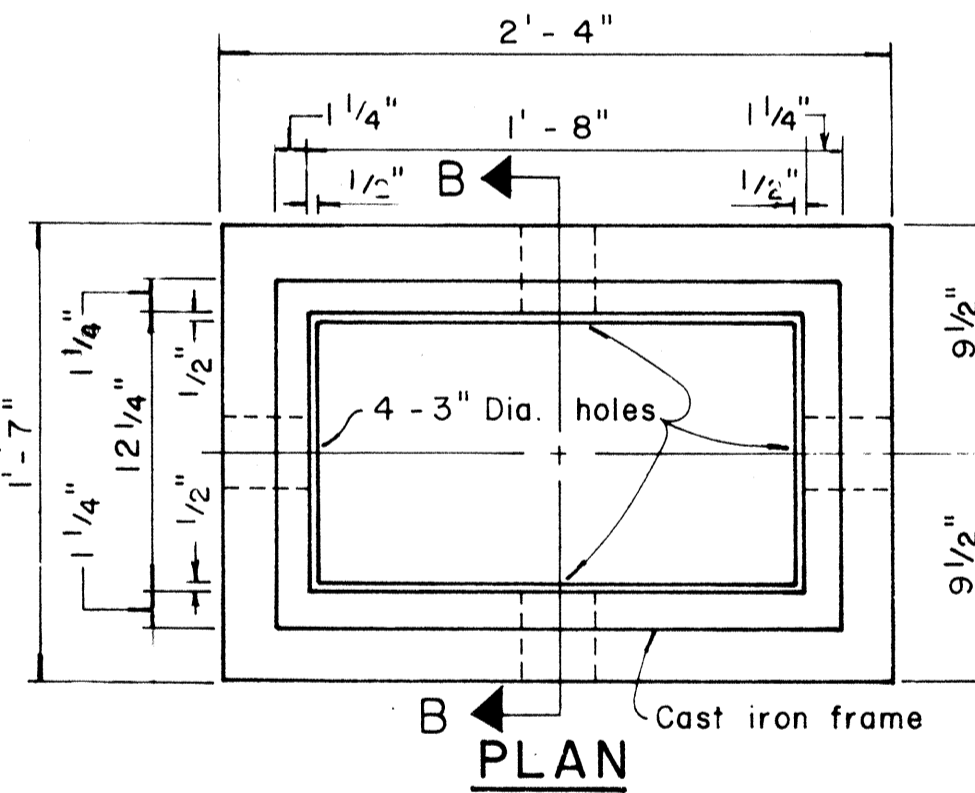
NOTE:
Except as noted, Cover Details shall conform to Type "B" Pullbox Cover.



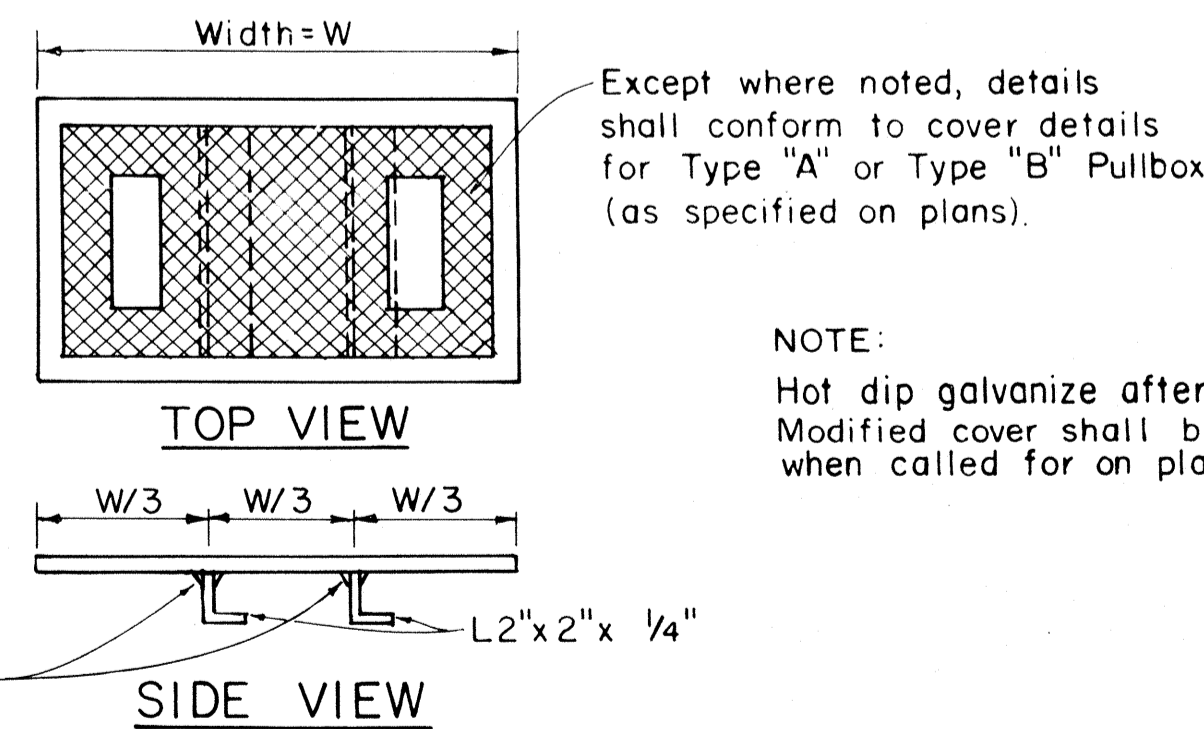
TYPE "C" PULLBOX
Scale: 1 1/2" = 1'-0"



NOTE:
Steel rim shall be welded to bottom of steel cover if necessary so that top of cover and frame are flush



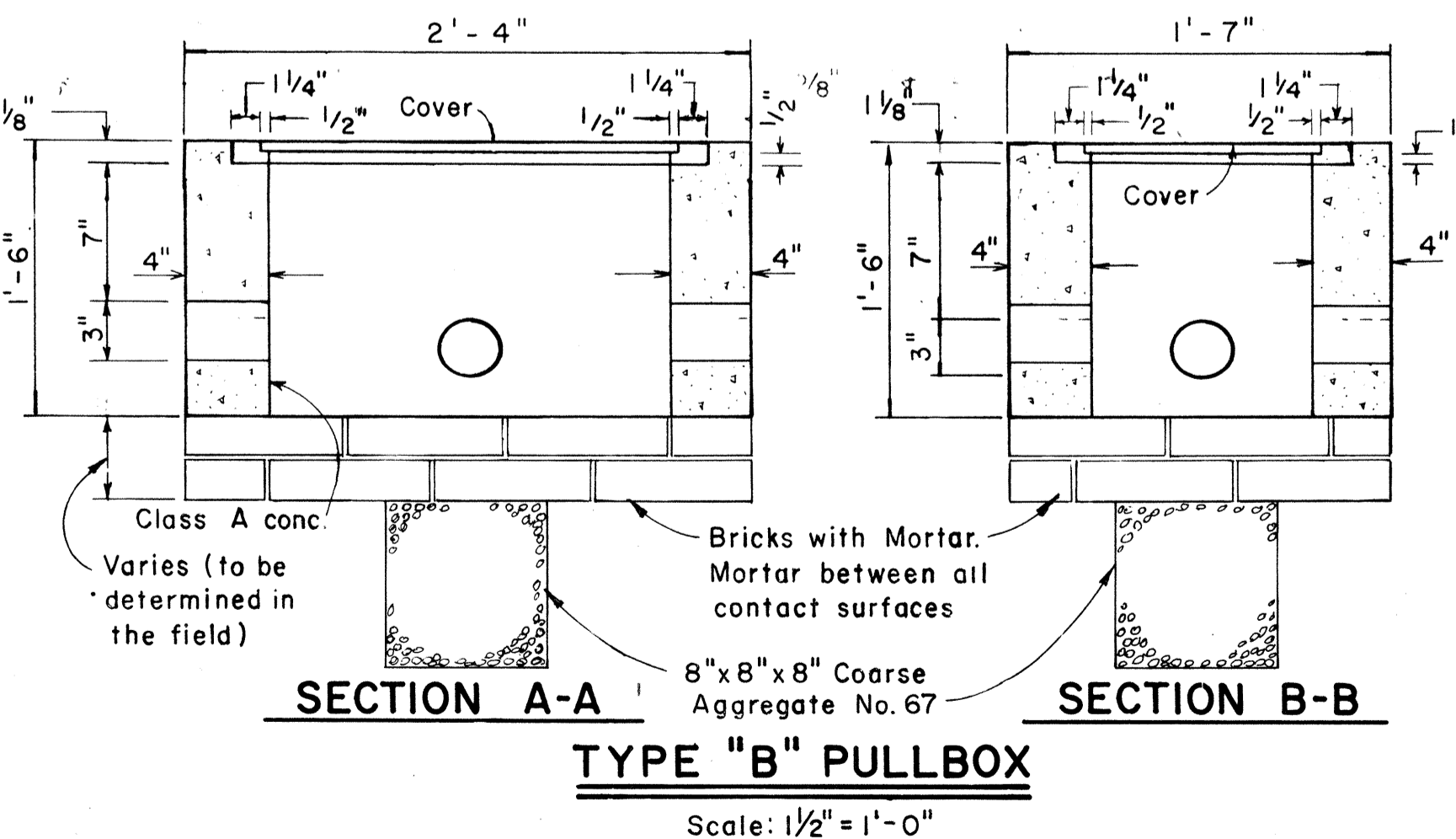
TYPE "A" PULLBOX
Scale: 1 1/2" = 1'-0"



NOTE:
Hot dip galvanize after fabrication. Modified cover shall be furnished when called for on plans.

APPROVAL RECOMMENDED:
[Signature] 12/29/62
TRAFFIC ENGINEER DATE

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



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

NO.	REVISION	APPROVED BY	DATE
1	Revised Type B & C Pullbox details	H.T.	3-5-66
2	Revised Type "A" Pullbox & Added Modified Cover.	H.T.	7-31-80
3	Revised Type B & C Pullbox details.	[Signature]	2-1-83

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
PULLBOXES

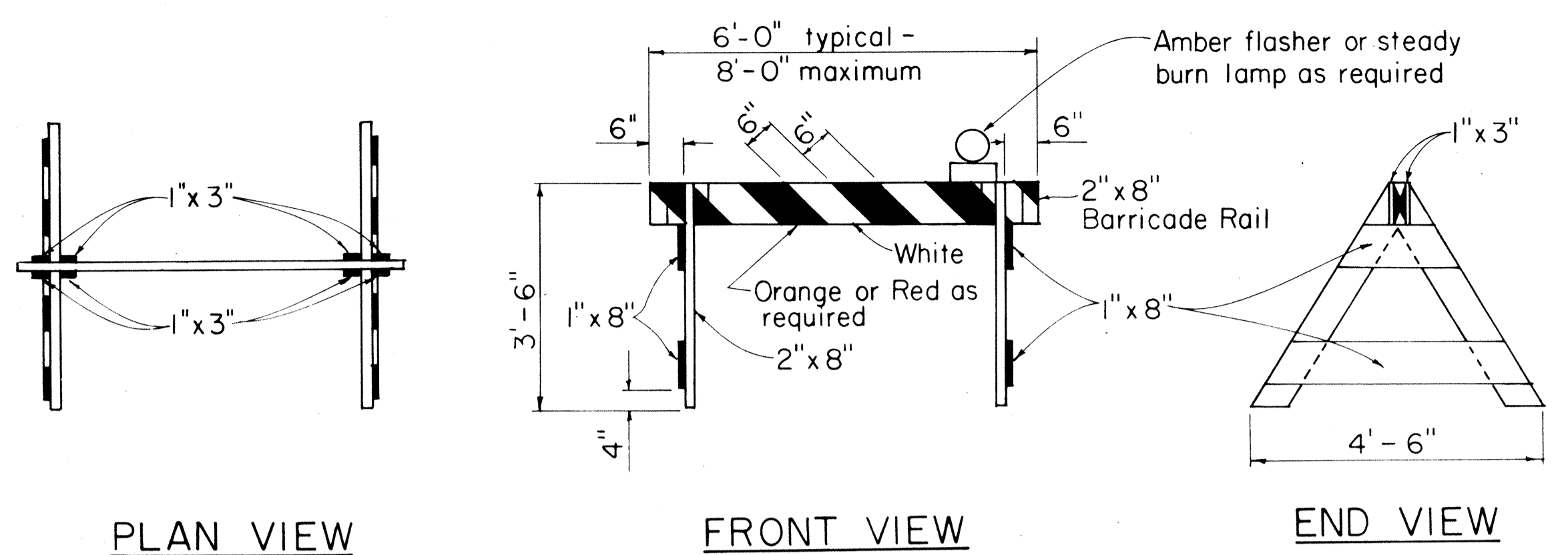
Scale as noted Date

SHEET No. 14 OF 15 SHEETS DT 401

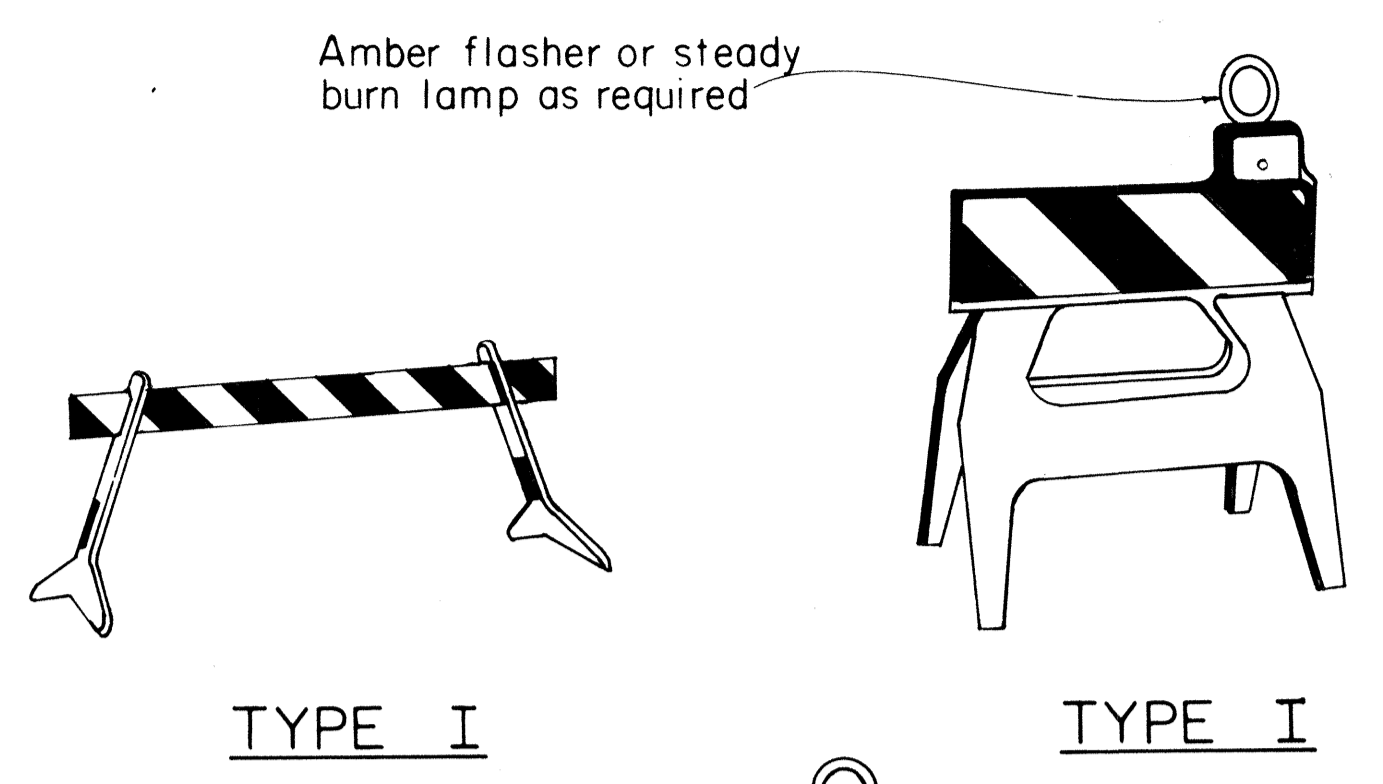
DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
DESIGNED BY: _____
NOTE BOOK QUANTITIES BY: _____
CHECKED BY: _____

MODIFIED COVER DETAIL
Not to Scale

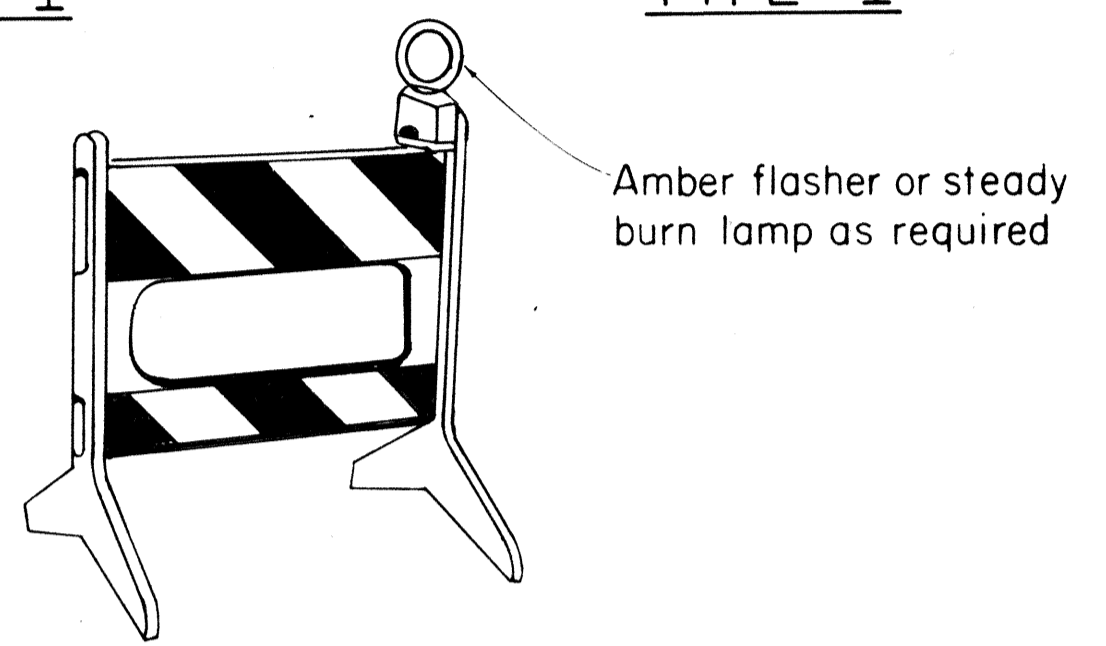
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	804A-01-87M	1987	30	30



TYPE I BARRICADE
Scale: 1/2" = 1'-0"



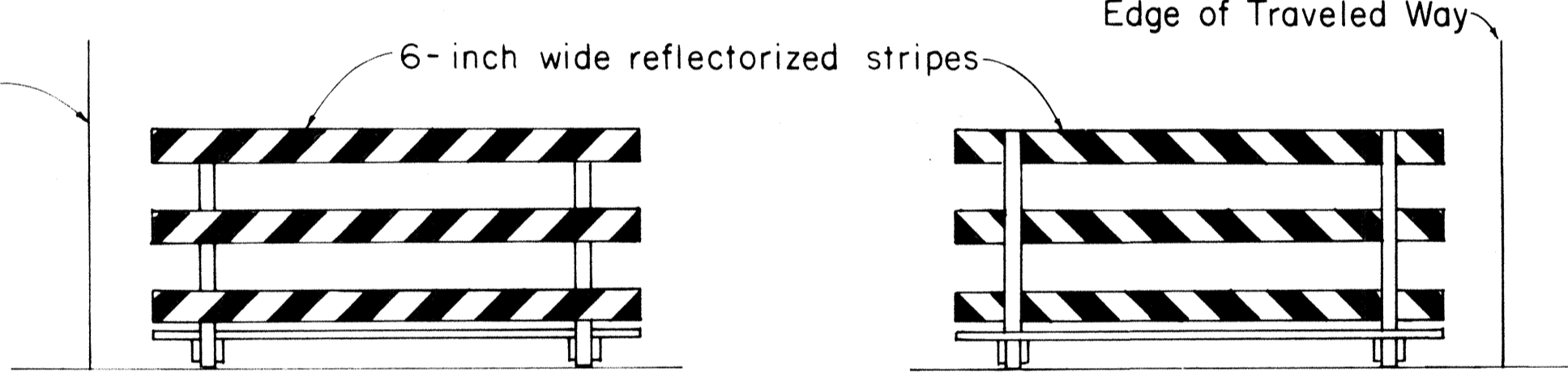
TYPE I



TYPE II

PLASTIC MOLDED BARRICADE OPTIONS*

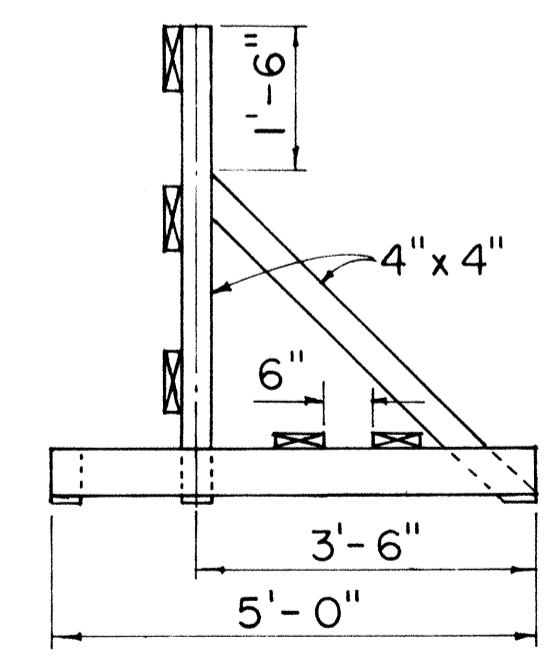
Not to Scale
* Shop Drawings must be submitted for approval.



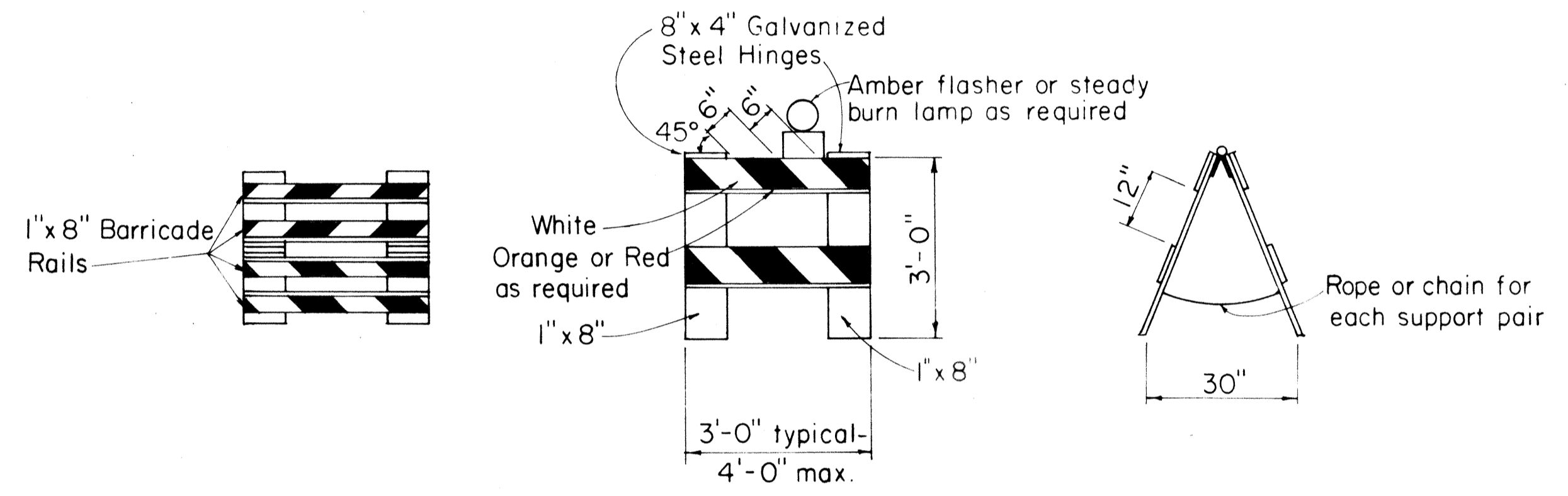
FRONT FACE BACK FACE

TYPICAL BARRICADE STRIPING DETAILS**

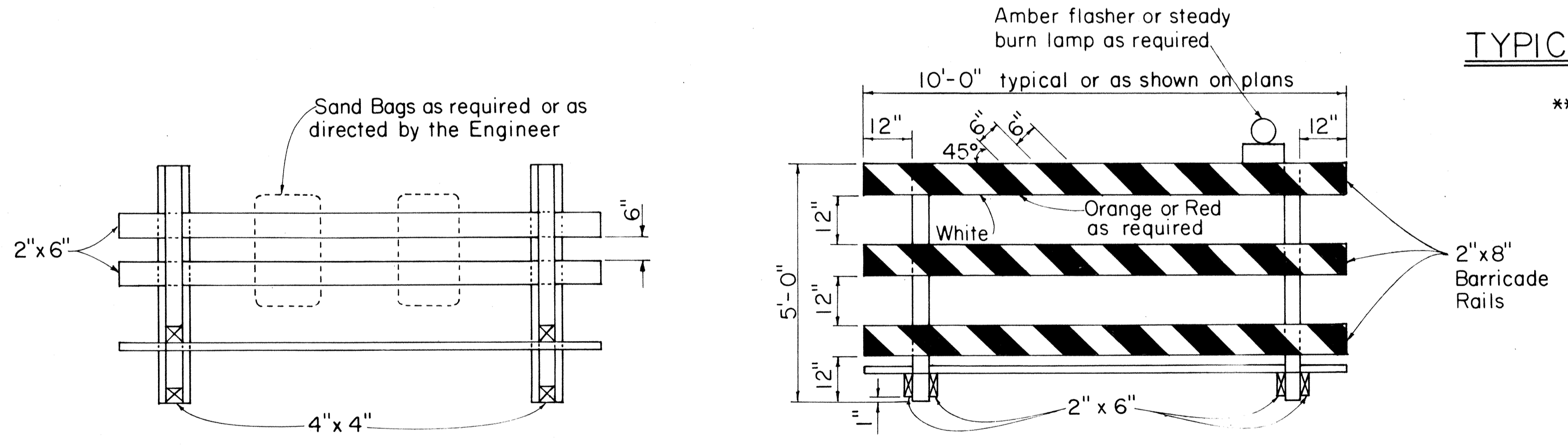
Not to Scale
** Similar for Types I & II



END VIEW



TYPE II BARRICADE
Scale: 1/2" = 1'-0"



TYPE III BARRICADE
Scale: 1/2" = 1'-0"

GENERAL NOTES

1. The front and back faces of each barricade rail shall be reflectorized with stripes sloping downward toward the same side (traveled way) of each barricade.
2. Contractor may submit alternate barricade designs for approval.
3. Sandbags or other approved weights shall not be placed on top of any striped rail.
4. The Contractor is directed to Section 626.

ORIGINAL SURVEY PLOTTED BY: DATE: _____
DRAWN BY: _____
DESIGNED BY: _____
CHECKED BY: _____
No. _____

APPROVAL RECOMMENDED:
Eiichi Tanaka 10/21/81
TRAFFIC ENGINEER DATE

APPROVED:
Hubert S. S. S. S. 10/23/81
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supercedes DT 800 Approved 12/30/69	H.T.	10/23/81

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

BARRICADES

SCALE: As Shown
SHEET NO. 15 OF 15 SHEETS DT 800