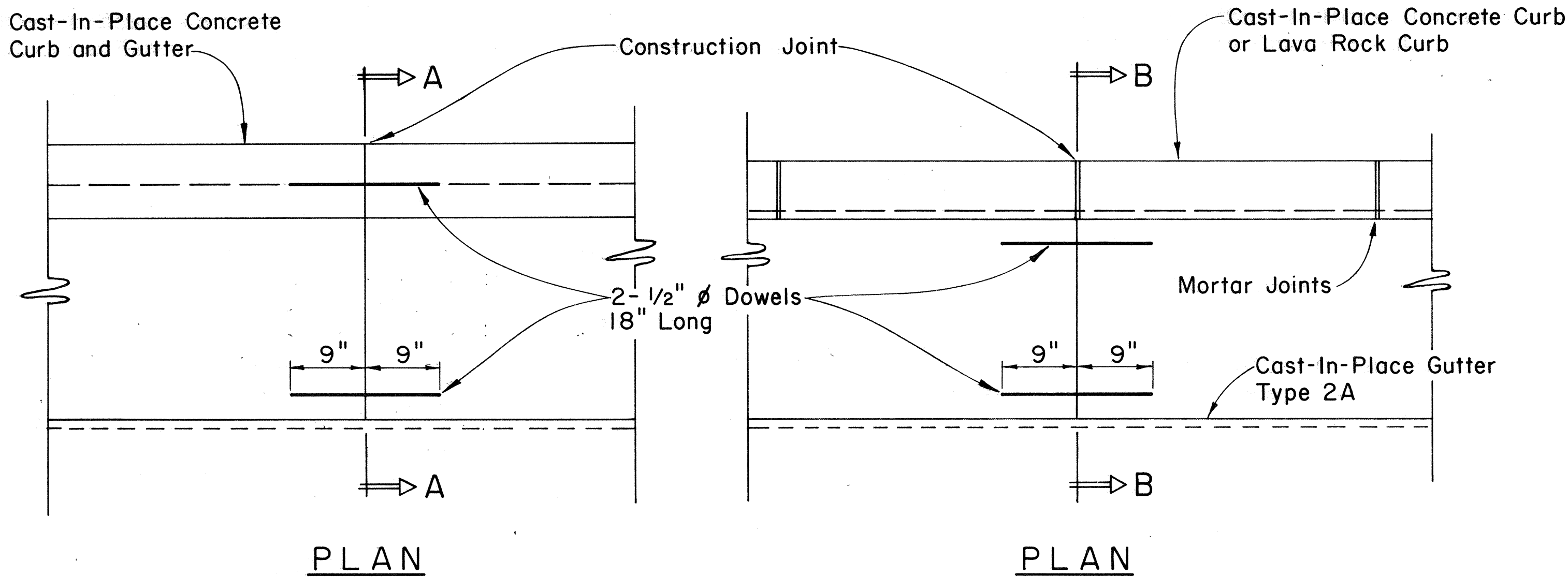
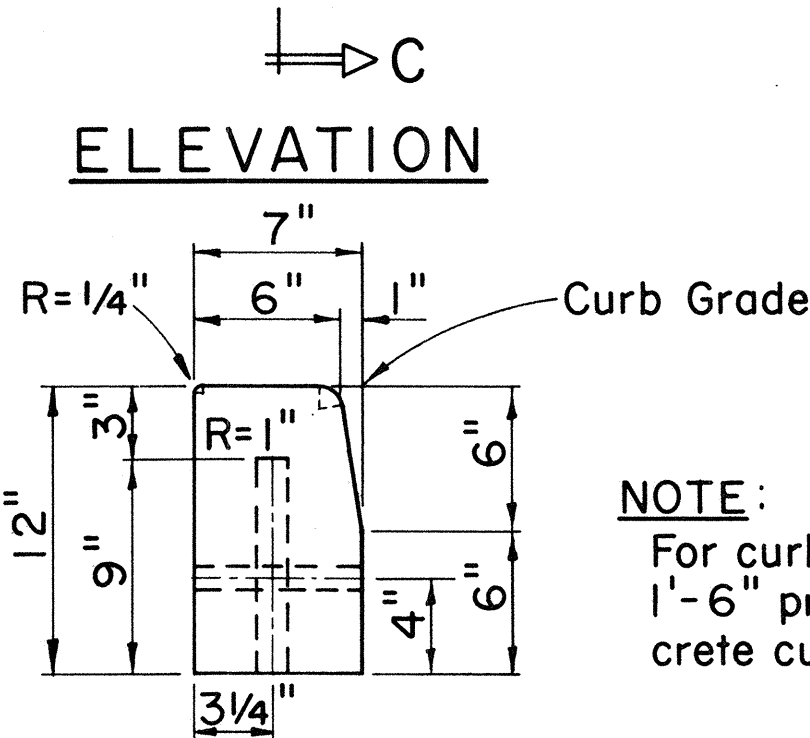
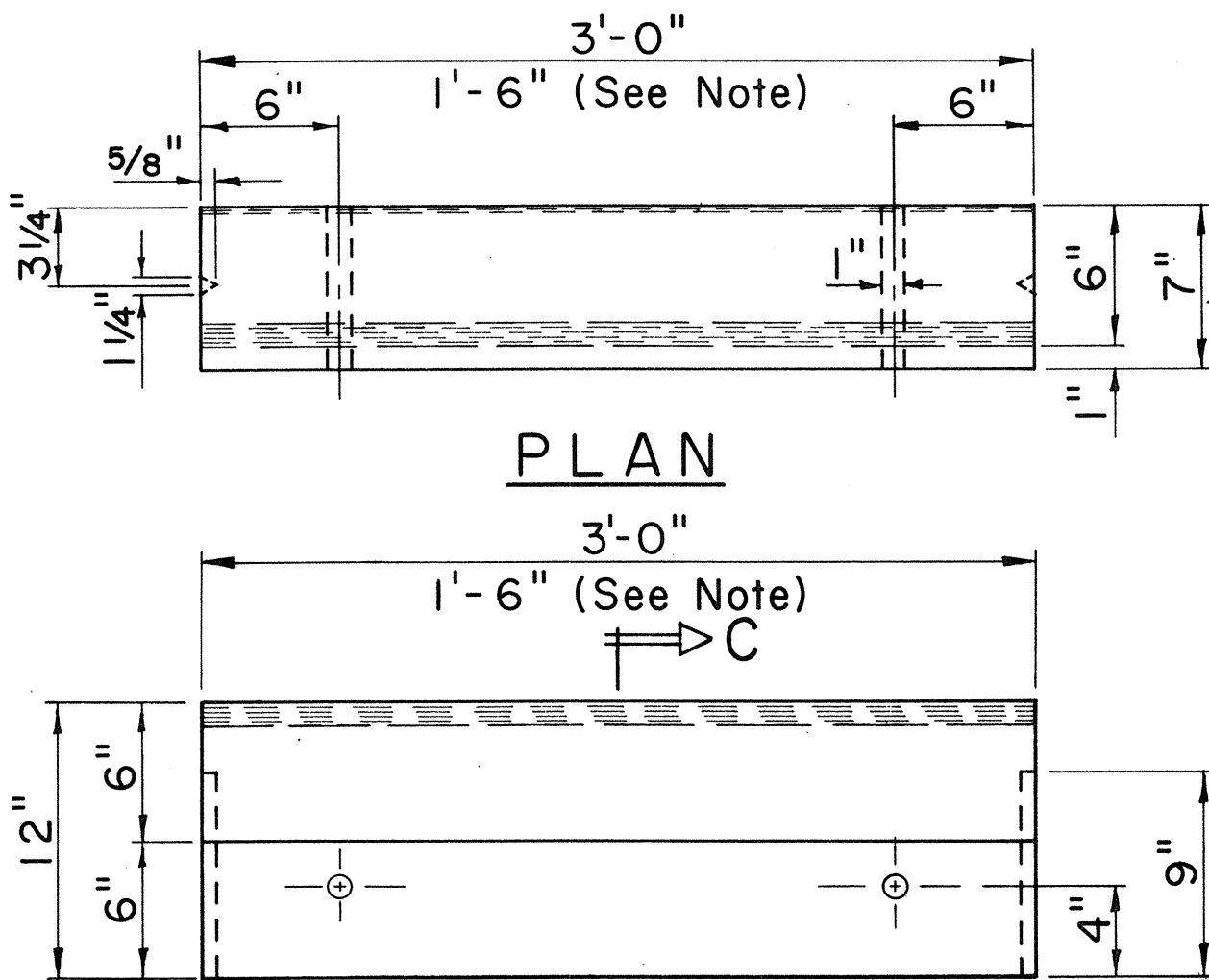


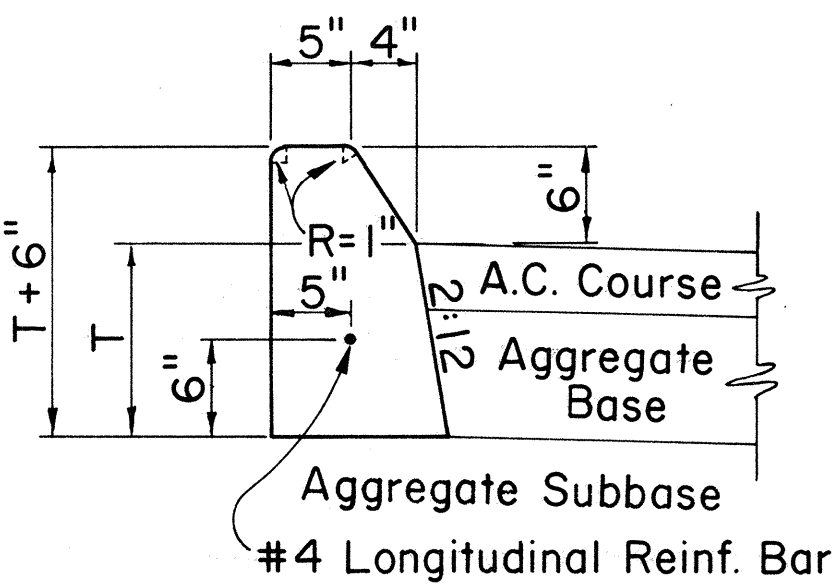
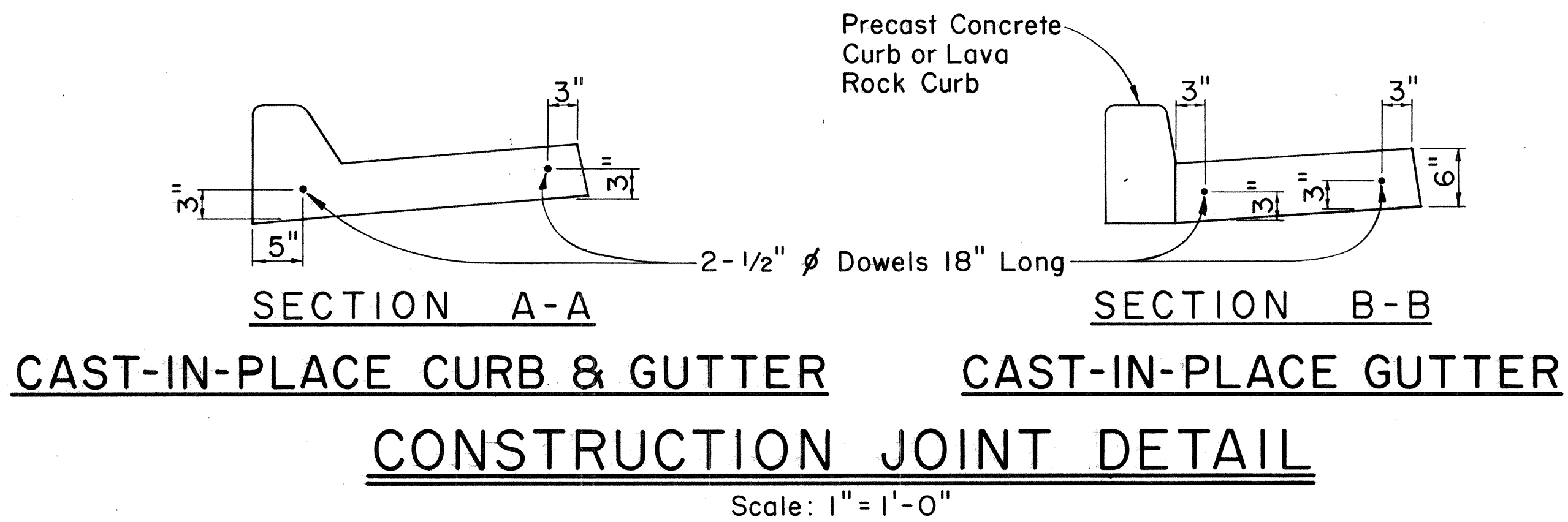
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-82	1983	7	19



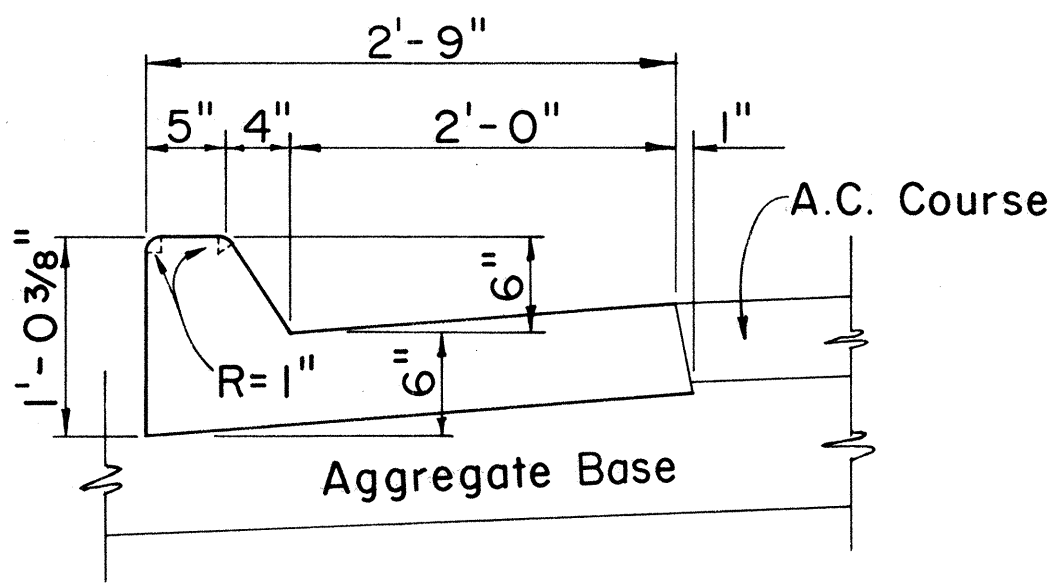
CURB, TYPE 6
BITUMINOUS CURB
 Scale: 1 1/2" = 1'-0"



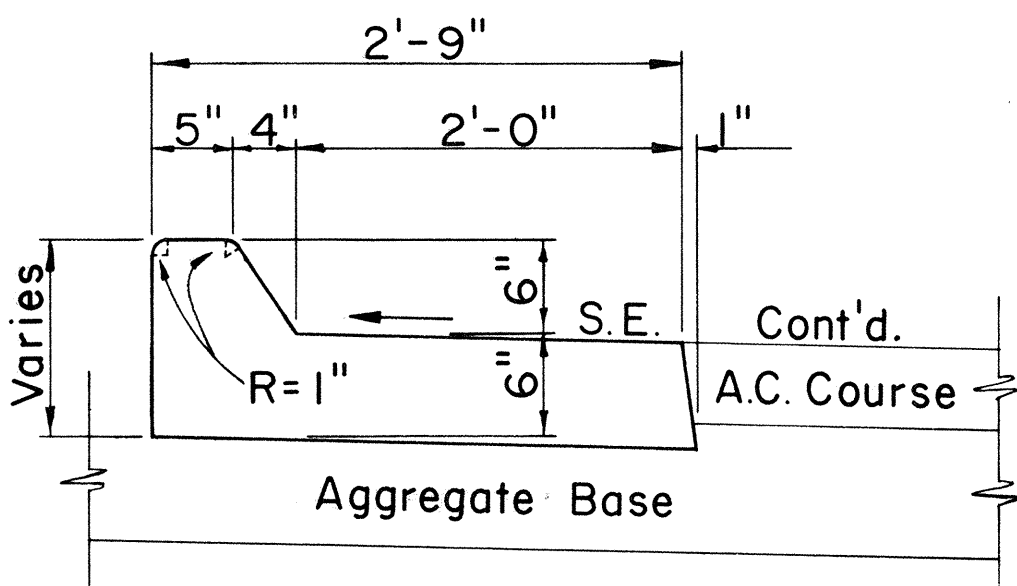
SECTION C-C
CURB, TYPE 3D
PRE-CAST CONC. CURB
 Scale: 1 1/2" = 1'-0"



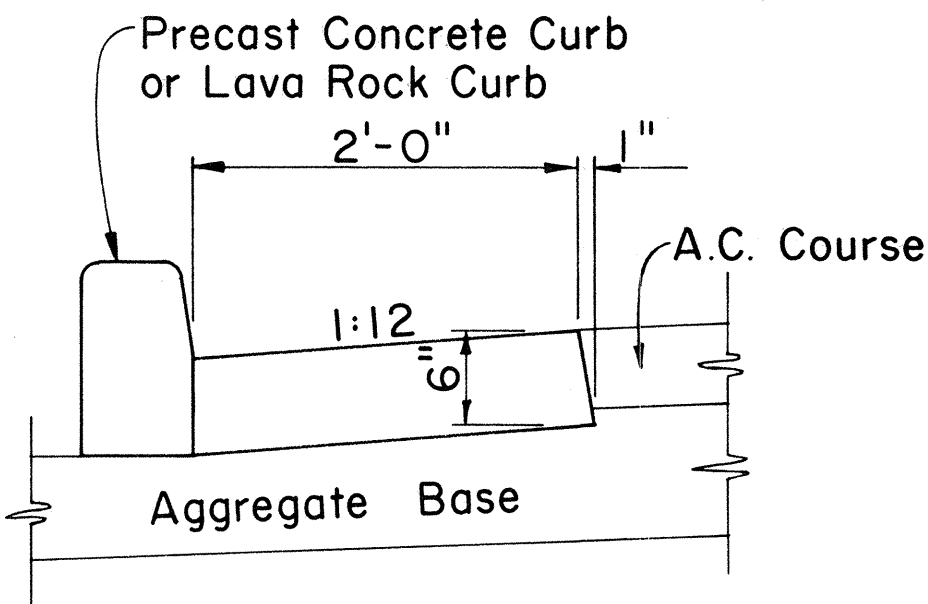
CURB, TYPE 2A



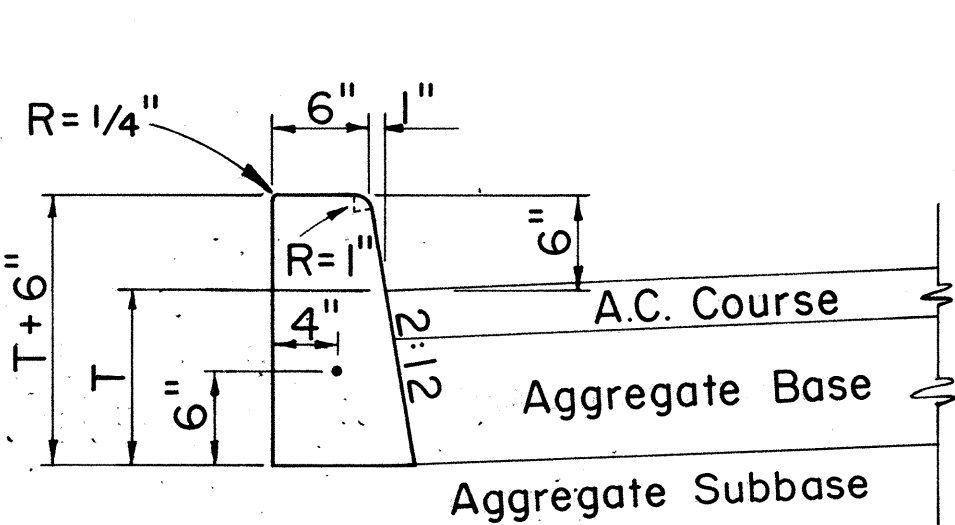
CURB & GUTTER, TYPE 2AG



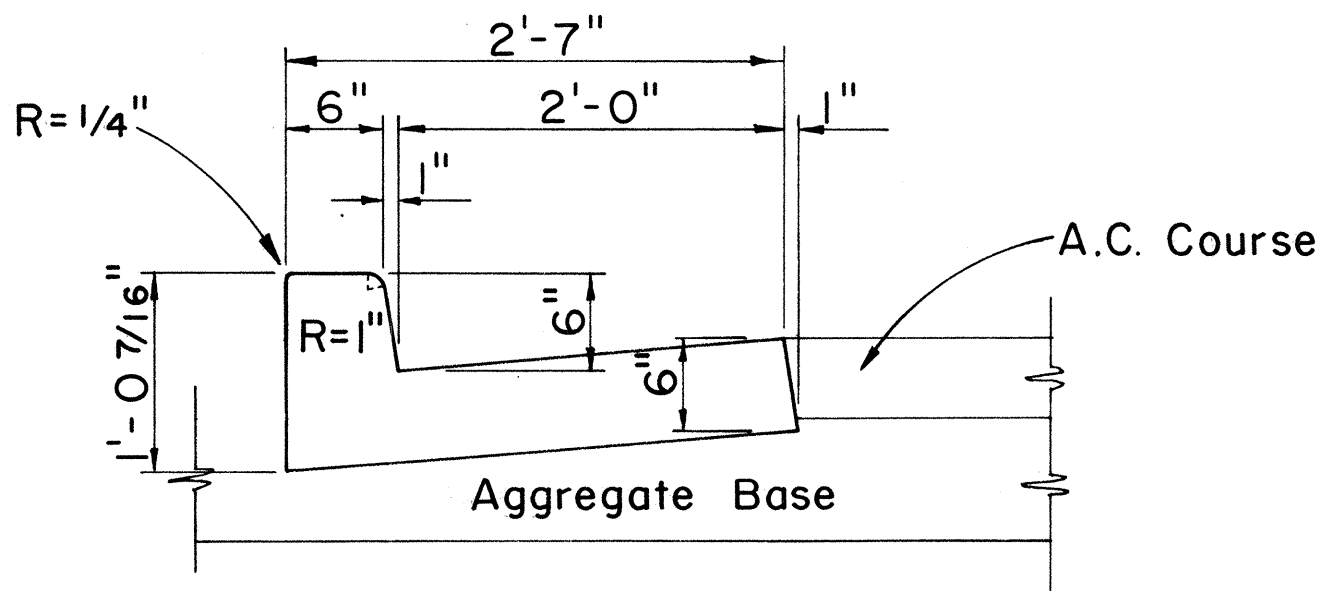
CURB & GUTTER, TYPE 2AGM



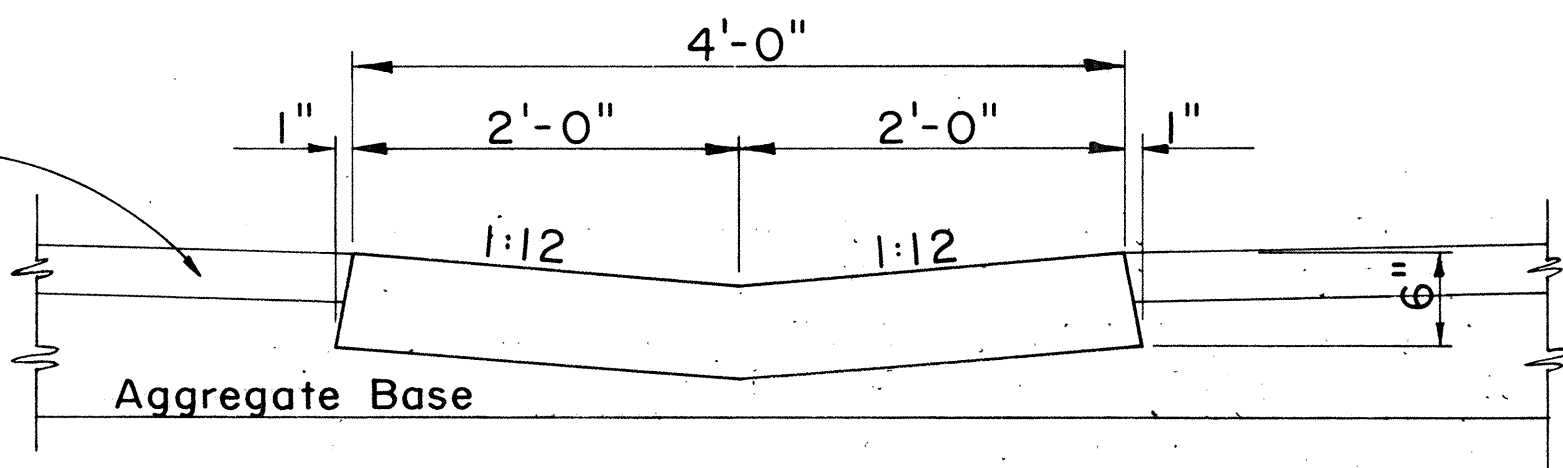
GUTTER, TYPE 2A



CURB, TYPE 2D



CURB & GUTTER, TYPE 2DG



GUTTER, TYPE 2G

CAST-IN-PLACE CONCRETE CURBS AND/OR GUTTERS
 Scale: 1" = 1'-0"

APPROVAL RECOMMENDED:
M. J. Jones 12-4-69
 HIGHWAY DESIGN ENGINEER DATE

APPROVED:
Robert S. Soder 12-10-59
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STANDARD DETAILS
TYPICAL DETAILS OF CURB
AND/OR GUTTERS

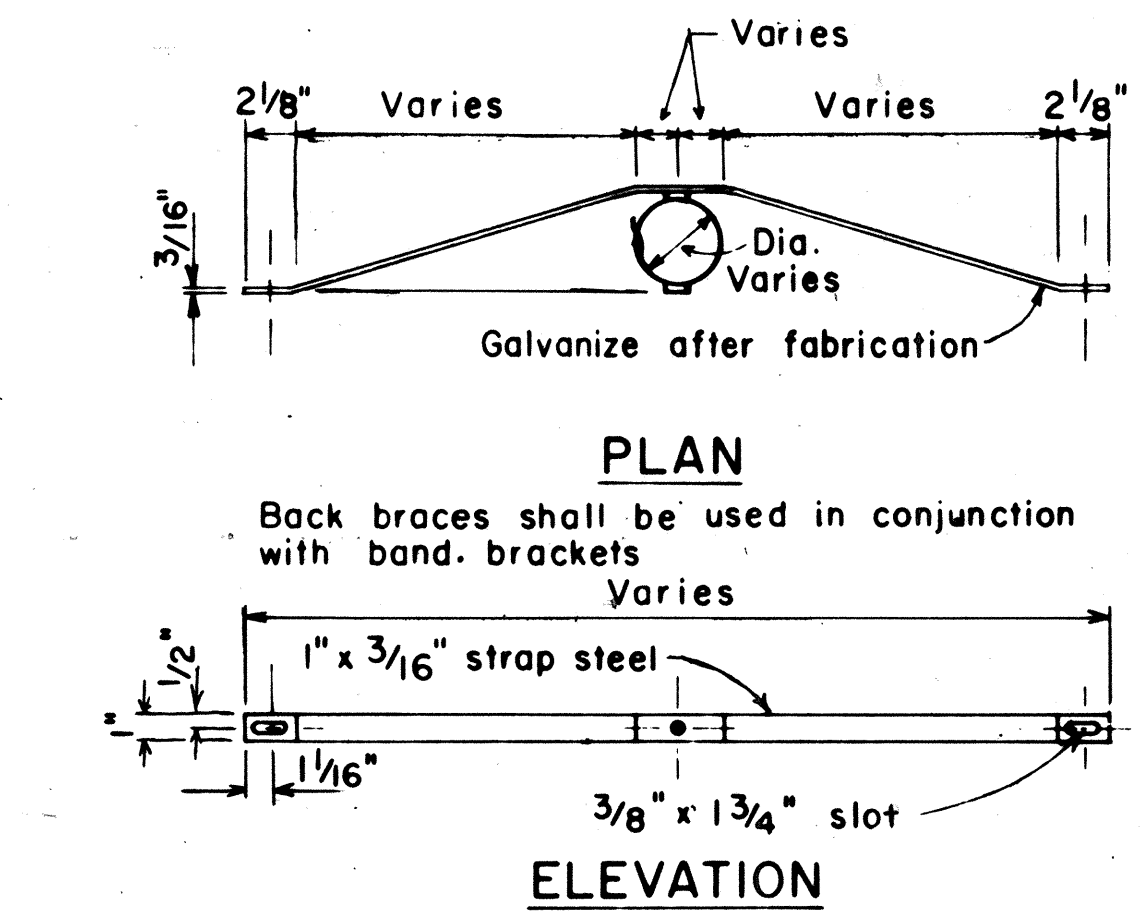
Scale: As Shown
 SHEET No. 1 OF 13 SHEETS DD 609.1

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

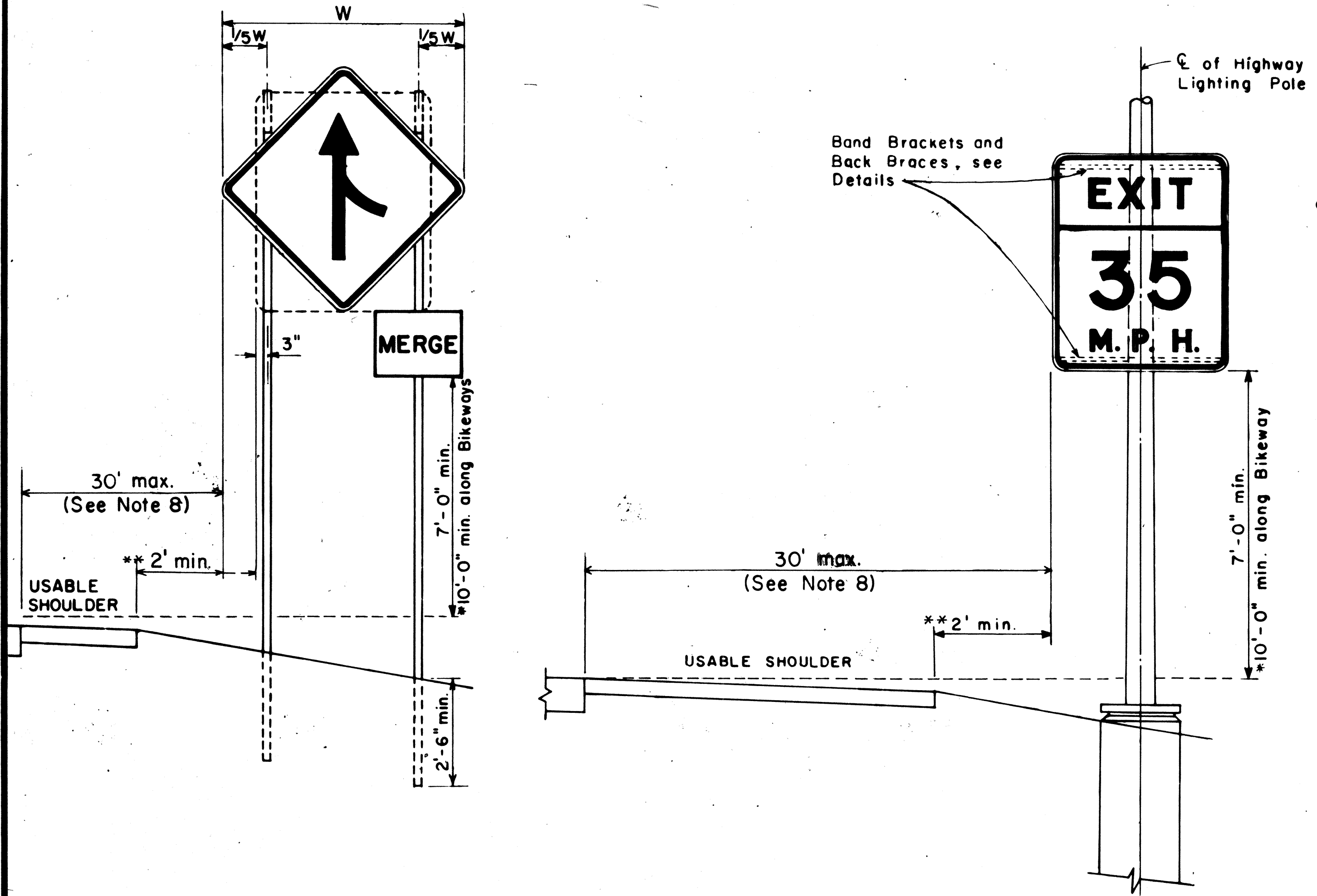
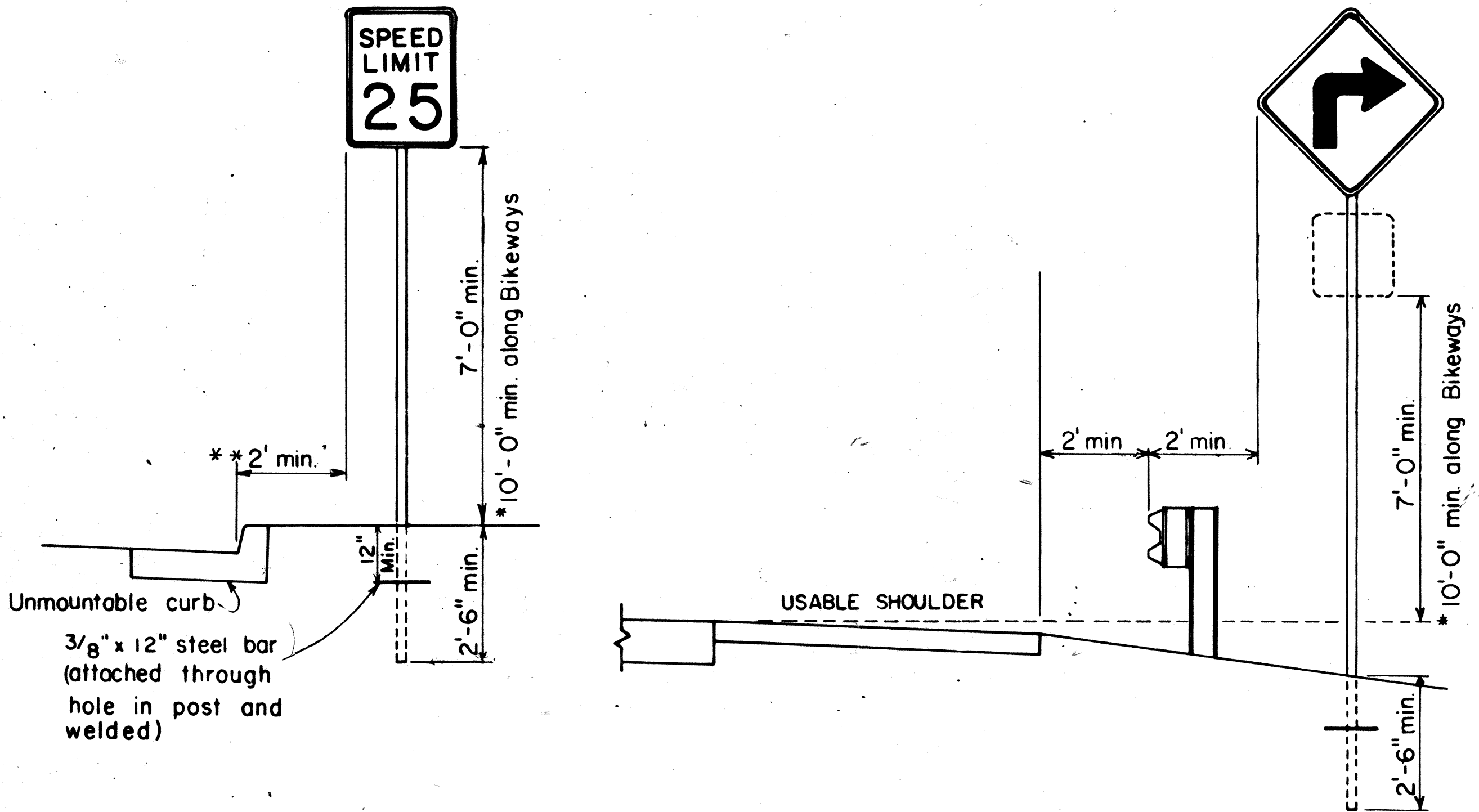
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-82	1983	8	19

GENERAL NOTES

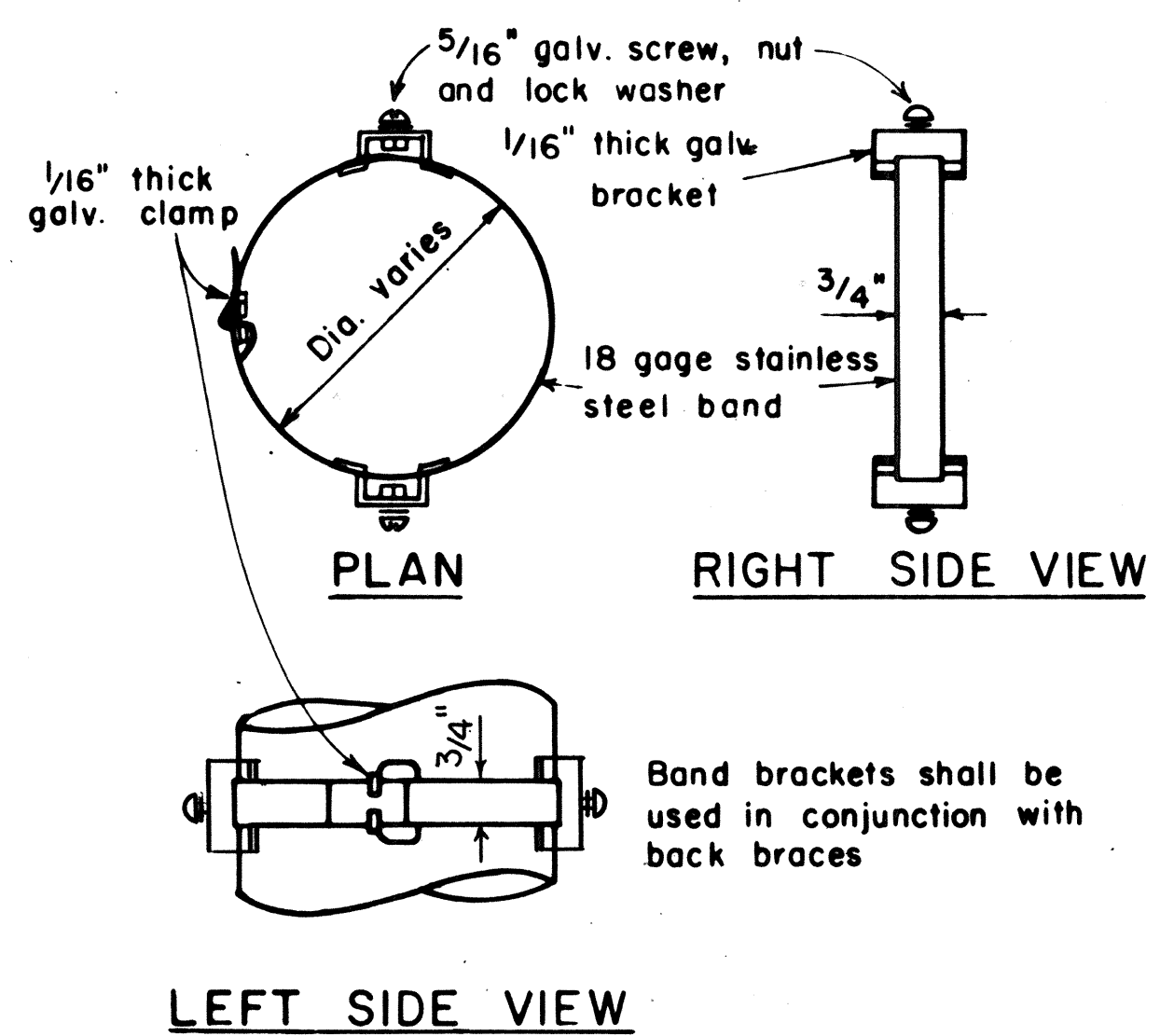
- Signs shall be placed in conformance with positions shown and described in the "Manual on Uniform Traffic Control Devices for Streets and Highways", 1978, Part II, Section 2A-21, as amended, and as supplemented herein.
- Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two sign posts except as noted below.
- Signs 48" and wider or larger than 10 sq. ft. in area may be mounted on other than two sign posts (i.e. on highway lighting poles).
 - 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 brackets 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 shall be shown on the plans.
- See plans for special details.
- 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.



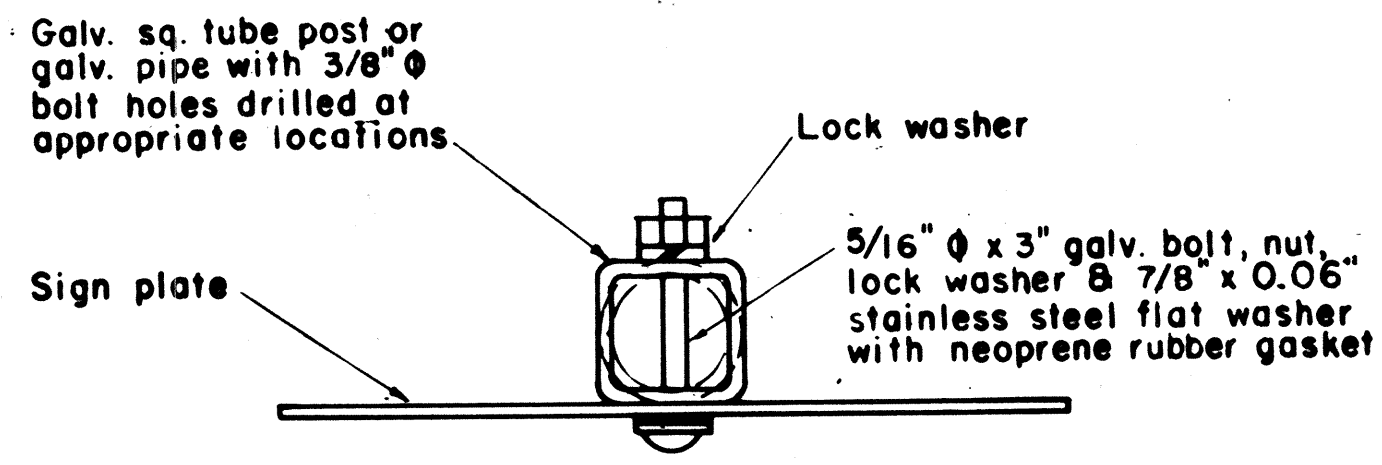
BACK BRACE DETAILS
FOR BALANCED SIGN INSTALLATION



HEIGHT AND LATERAL LOCATION OF SIGNS
TYPICAL INSTALLATION



BAND BRACKET



GALVANIZED SQUARE TUBE POST
(OR GALVANIZED PIPE)

TYPICAL MOUNTING DETAILS

NOT TO SCALE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT-100 approved 12/30/69	H.T.	11/15/11
2	Revised depth of signpost	H.T.	5/8/19
3	Added Notes No. 8 & No. 9	H.T.	5/15/19
4	Revised Gen. Note #4 & Mounting Details	H.T.	4/23/20
5	Revised General Notes, Lateral Sign Locations and Mounting Details	H.T.	5/15/21

APPROVAL RECOMMENDED:
Erich Tanaka
TRAFFIC ENGINEER
11/10/11
DATE

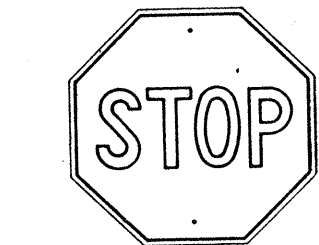
APPROVED:
Harbert S. Nakai
ASSISTANT CHIEF, ENGINEERING
11/15/11
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS SIGN DETAILS

Not to scale
June, 1977

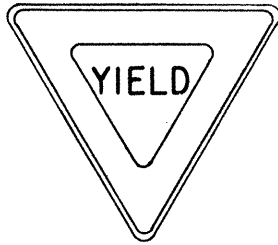
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-82	1983	9	19



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

4-WAY

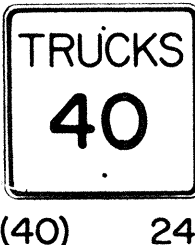
R1-3 12" x 6"
R1-3-A 18" x 9"



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



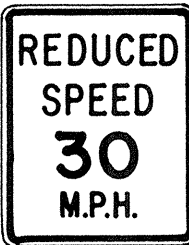
R2-1(50) 24" x 30"
R2-1(50)-A 48" x 60"



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"



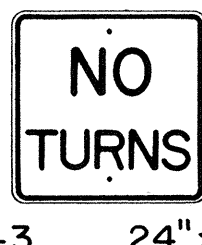
R2-5b(30) 24" x 30"
R2-5b(30)-A 48" x 60"



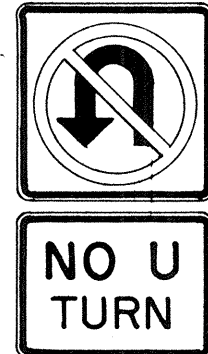
R3-1 24"x24"
24"x18"
R3-1-A 48"x48"
48"x36"



R3-2 24"x24"
24"x18"
R3-2-A 48"x48"
48"x36"



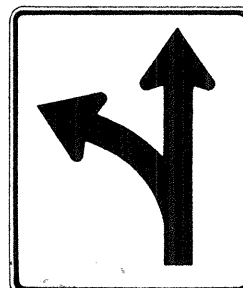
R3-3 24" x 24"
R3-3-A 48" x 48"



R3-4 24"x24"
24"x18"
R3-4-A 48"x48"
48"x36"



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



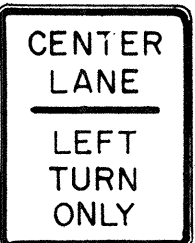
R3-6(L) 30" x 36"
R3-6(L)-A 48" x 60"



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



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



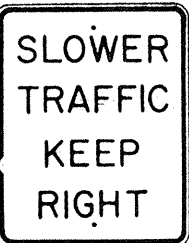
R3-9 24" x 30"



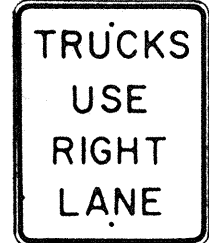
R4-1 24" x 30"



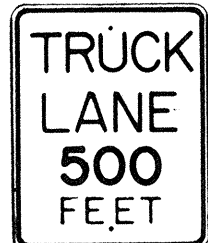
R4-2 24" x 30"



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



R4-5 24" x 30"



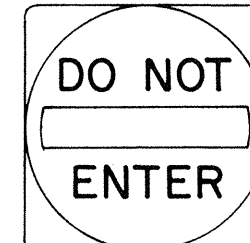
R4-6(500) 24" x 30"



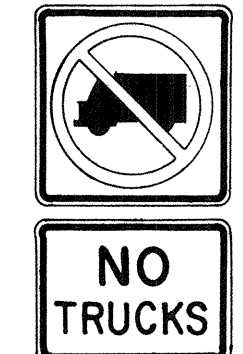
R4-7 24" x 30"
24" x 18"



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



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



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



R5-4 24" x 30"



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



R5-9 36" x 24"



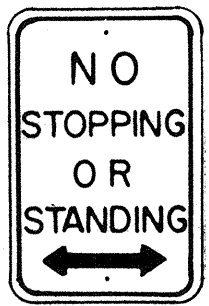
R6-1(R) 36" x 12"



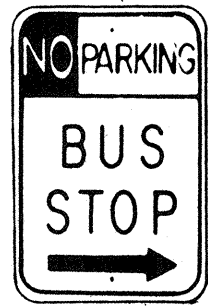
R6-2(R) 18" x 24"



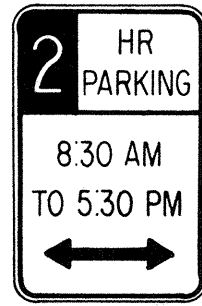
R7-1 12" x 18"
R7-1-A 24" x 30"



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



R7-107(R) 12" x 18"



R7-108 12" x 18"



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



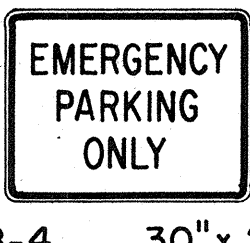
R8-1 24" x 30"



R8-2 24" x 30"



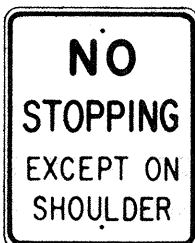
R8-3 24" x 30"



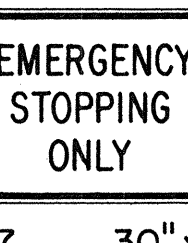
R8-4 30" x 24"
R8-4-A 48" x 36"



R8-5 24" x 30"



R8-6 24" x 30"



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



R9-1 18" x 24"



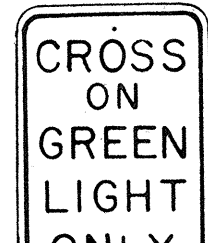
R9-2 12" x 18"



R9-3 12" x 18"



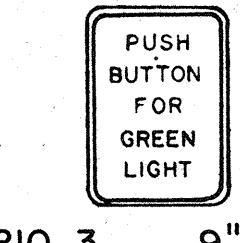
R9-4 18" x 24"



R10-1 12" x 18"



R10-2 12" x 18"



R10-3 9" x 12"



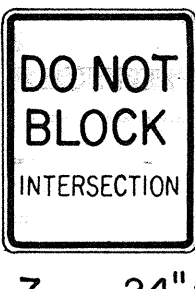
R10-4 9" x 12"



R10-5 24" x 30"



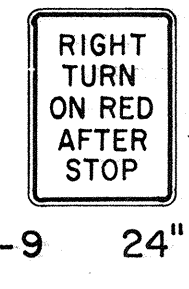
R10-6 24" x 36"



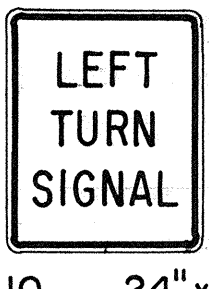
R10-7 24" x 30"



R10-8 24" x 30"



R10-9 24" x 30"



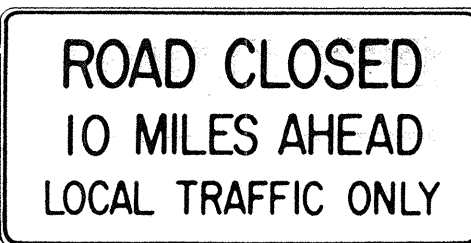
R10-10 24" x 30"



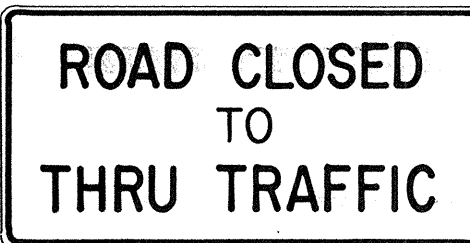
R11-1 24" x 30"



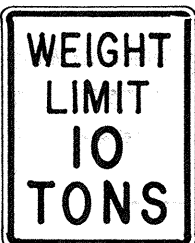
R11-2 48" x 30"



R11-3(10) 60" x 30"



R11-4 60" x 30"



R12-1(10) 24" x 30"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 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:
TRAFFIC ENGINEER

3/17/72
DATE

APPROVED:
ASSISTANT CHIEF, ENGINEERING

3-20-72
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H.I.	3/20/72
2	Revised General Note 1.	H.I.	10/10/74
3	Added General Note 5	H.I.	8/27/77

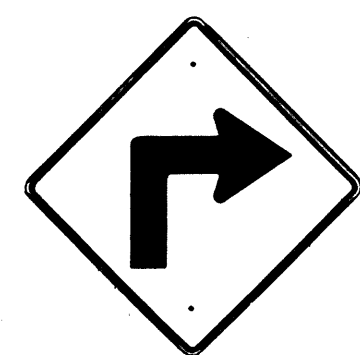
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS REGULATORY SIGNS

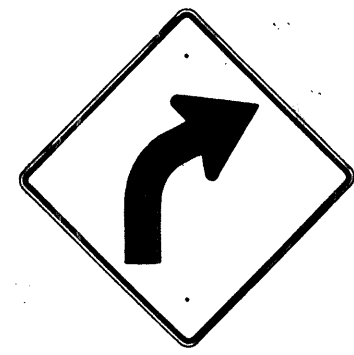
NOT TO SCALE

SHEET No. 3 OF 13 SHEETS DT 101

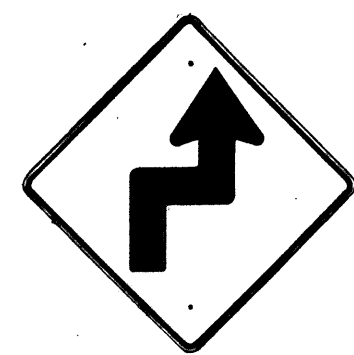
DATE	***
SURVEY PLOTTED BY	***
DRAWN BY	***
TRACED BY	***
DESIGNED BY	***
CHECKED BY	***
ORIGINAL PLAN	***
NOTE BOOK	***
No.	***



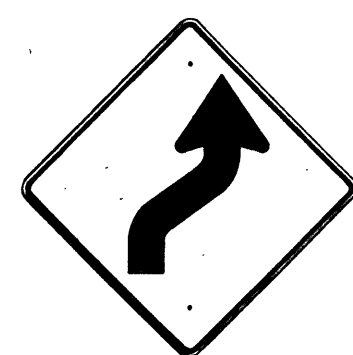
W1-1(R) 30"x30"
W1-1(R)-A 48"x48"



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



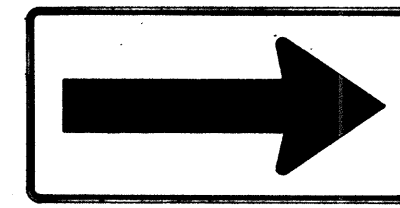
W1-3(R) 30"x30"
W1-3(R)-A 48"x48"



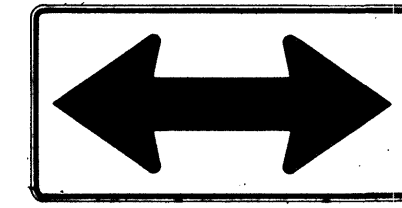
W1-4(R) 30"x30"
W1-4(R)-A 48"x48"



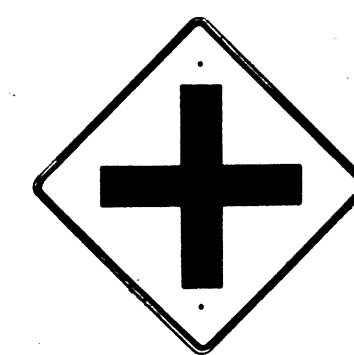
W1-5(R) 30"x30"
W1-5(R)-A 48"x48"



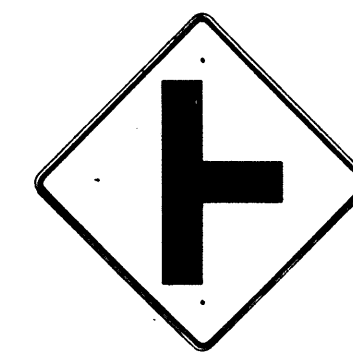
W1-6 48"x24"



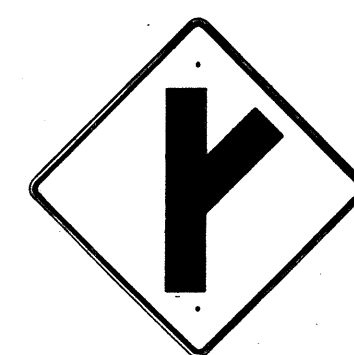
W1-7 48"x24"



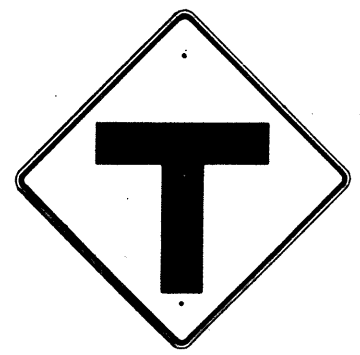
W2-1 30"x30"
W2-1-A 48"x48"



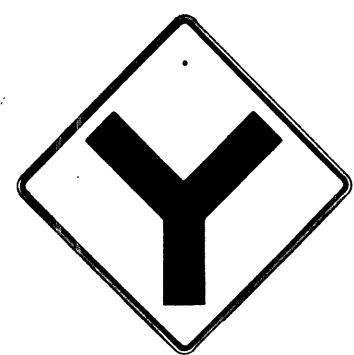
W2-2 30"x30"
W2-2-A 48"x48"



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



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



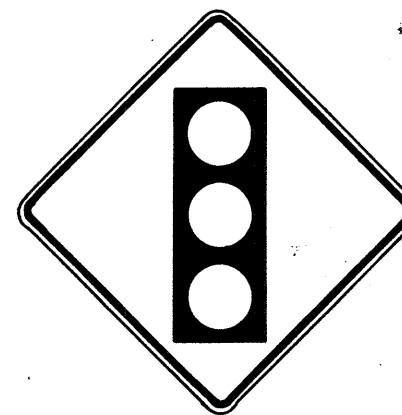
W2-5 30"x30"
W2-5-A 48"x48"



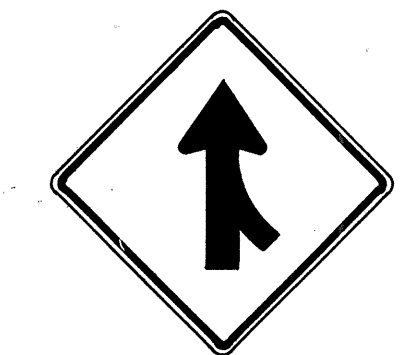
W3-1 30"x30"
W3-1-A 36"x36"



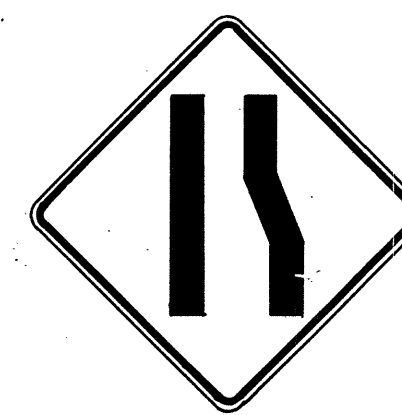
W3-2 30"x30"
W3-2-A 36"x36"



W3-3 36"x36"
24"x18"



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



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



W5-1 36"x36"



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



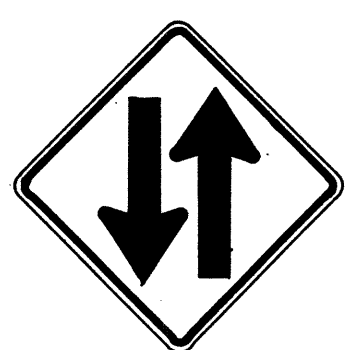
W5-3 36"x36"



W6-1 36"x36"
24"x18"



W6-2 36"x36"
24"x18"



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



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



W7-2 24"x18"



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



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



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



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



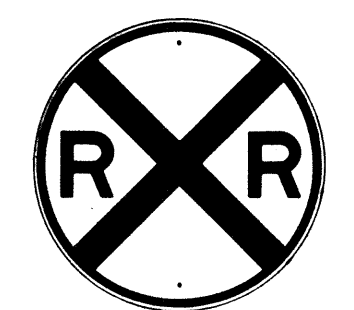
W8-5 30"x30"
24"x18"
W8-5-A 36"x36"
24"x18"



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



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



W10-1 36" Diameter



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



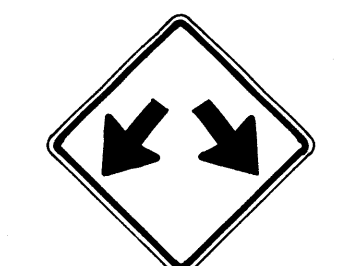
W11-2 30"x30"
24"x18"
W11-2-A 36"x36"
24"x18"



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



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



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



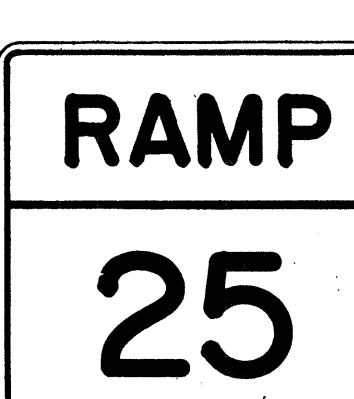
W12-2(12'-6") 36"x36"
24"x18"



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



W13-2(25) 48"x60"



W13-3(25) 48"x60"



W14-1 30"x30"



W14-3 36"x48"x48"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 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:
TRAFFIC ENGINEER

3/17/12
DATE

APPROVED:
ASSISTANT CHIEF, ENGINEERING

3-20-12
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 102 Approved 12-30-69	H.T.	3/20/12
2	Revised General Note 1	H.T.	10/16/14
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. 4 OF 13 SHEETS DT-102

DATE	*****
SURVEY PLATTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-82	1983	11	19



CW20-1a 48" x 48"



CW20-2d 48" x 48"



CW20-3b 48" x 48"



CW20-4d 48" x 48"



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



CW20-7c 48" x 48"



CW21-1 30" x 30"



CW21-2 30" x 30"



CW21-3 36" x 36"



CW21-4 36" x 36"



CW21-5 30" x 30"



CW21-6 30" x 30"



CW22-1b 48" x 48"



CW22-2 42" x 36"



CW22-3 42" x 36"



CG20-1(5) 60" x 36"



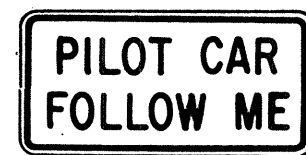
CG20-2 60" x 24"



CM4-9(R) 30" x 24"



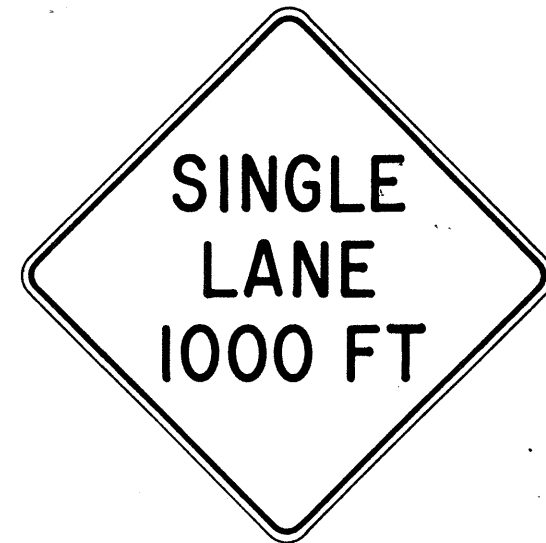
CM4-10(R) 48" x 18"



CG20-4 36" x 18"



CW23-1 36" x 36"



CW23-2b 48" x 48"



CW23-3(R) 48" x 48"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 1972, and as amended.
- All construction signs shall be reflectorized.
- All construction signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations.
- Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
- For "CW" series signs, suffixes a, b, c and d are as follows:
a-1500 FT, b-1000 FT, c-500 FT and d-AHEAD.

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	H.T.	3/25/72
2	Revised General Note 1	H.T.	10/16/74
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

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

APPROVED:
William S. S. S. 3/23/72
ASSISTANT CHIEF, ENGINEERING DATE

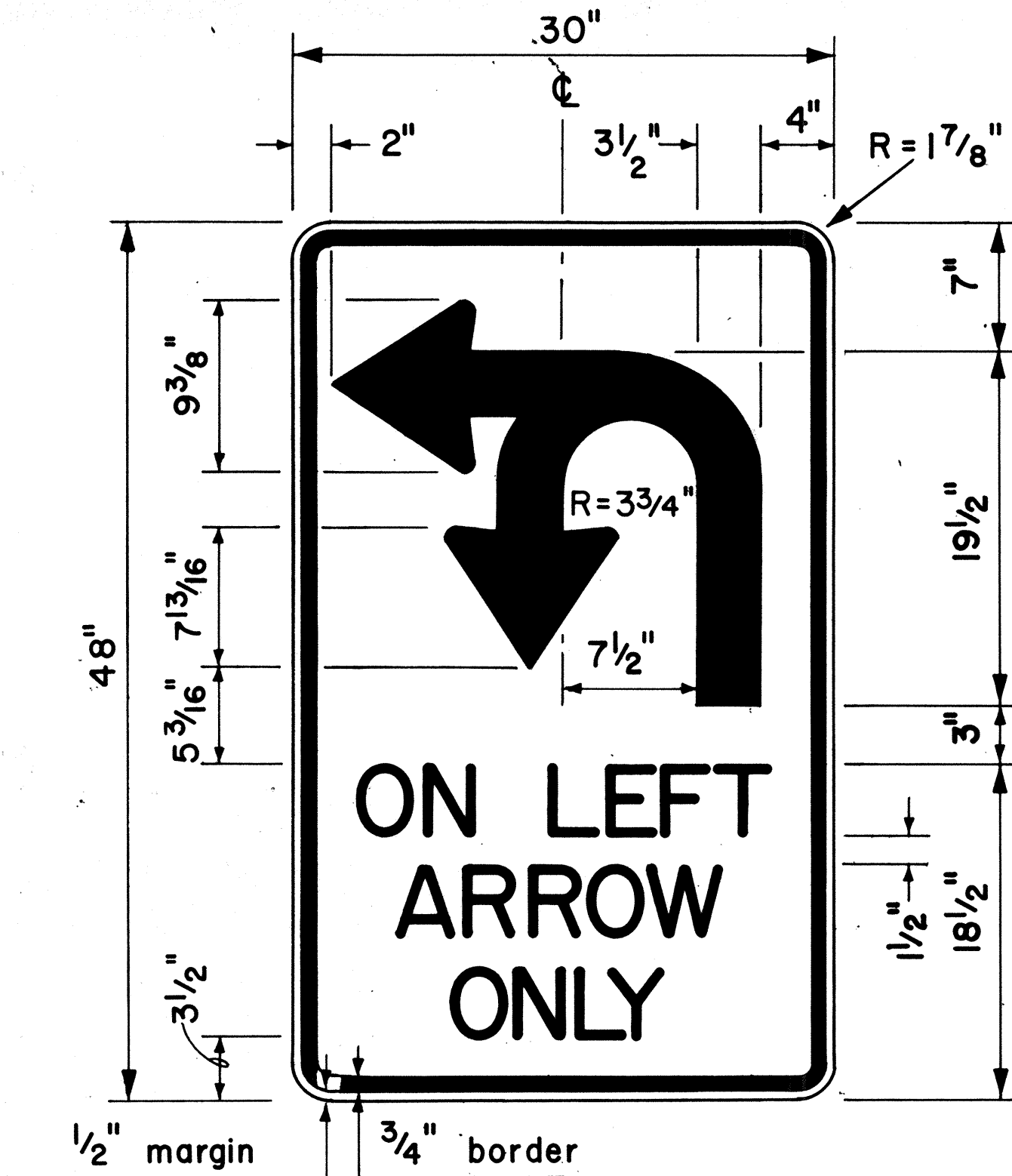
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
STANDARD DETAILS
CONSTRUCTION SIGNS
NOT TO SCALE
SHEET No. 5 OF 13 SHEETS DT 104

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

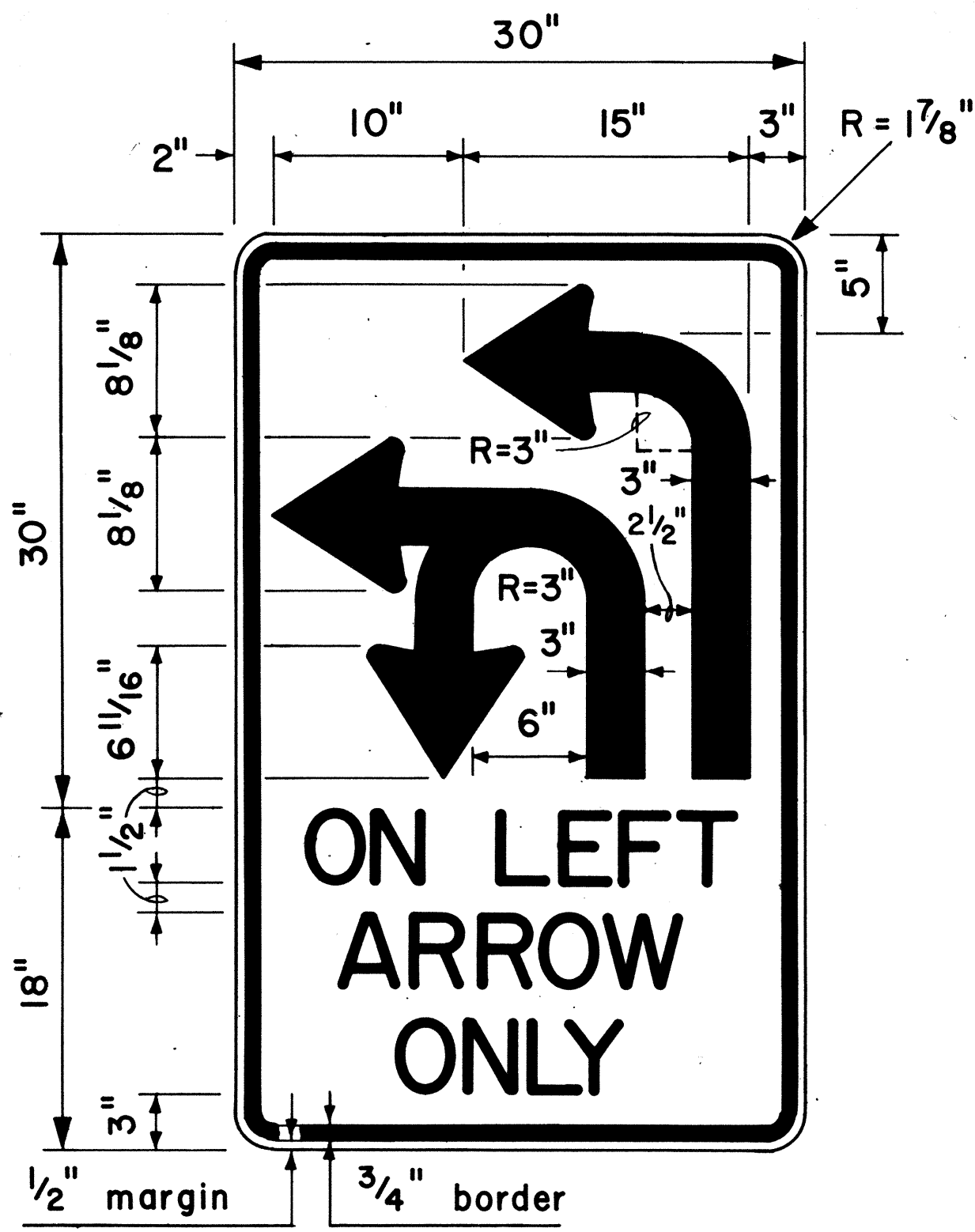
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-82	1983	12	19

GENERAL NOTES

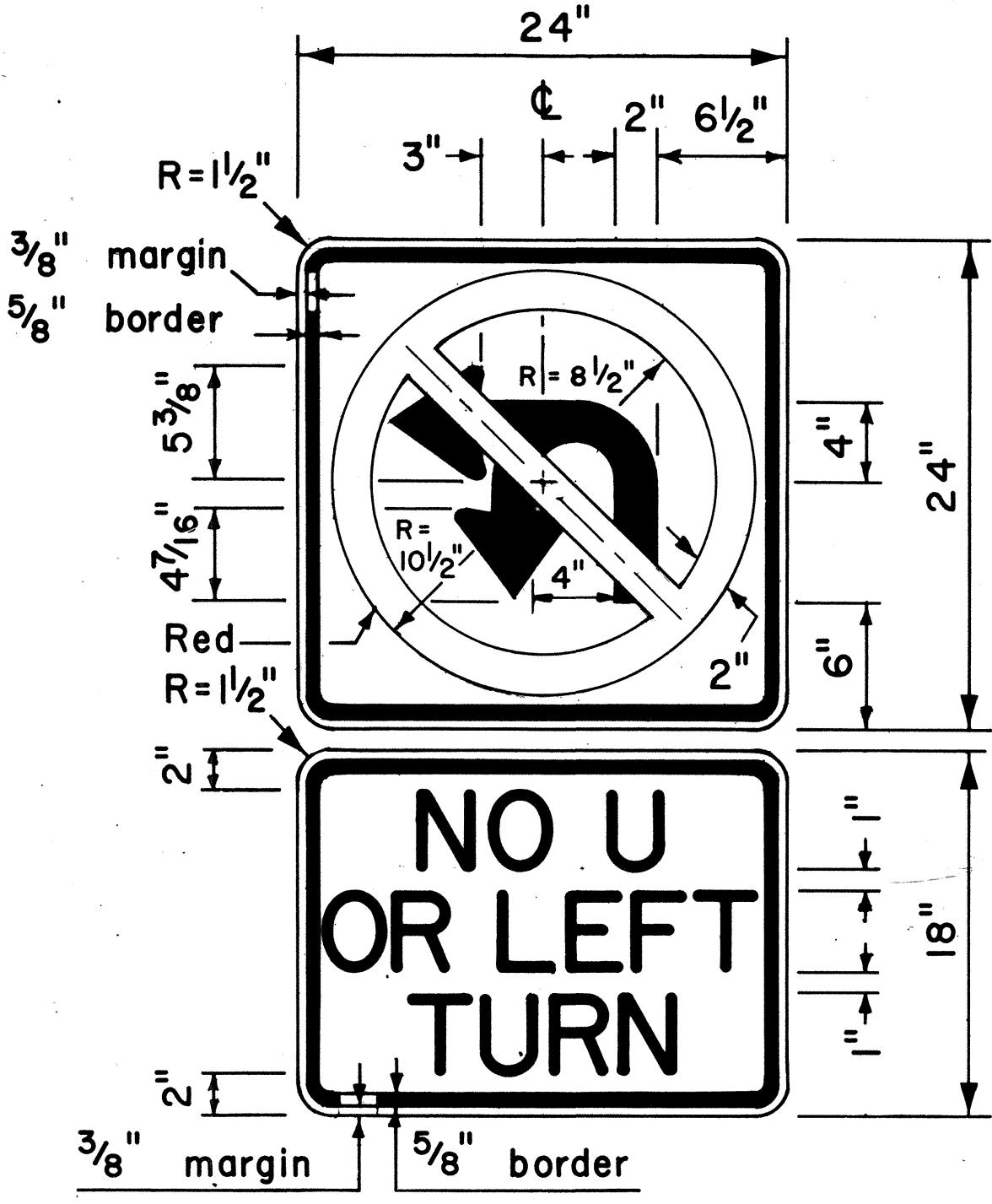
1. Sign details shall conform to the latest editions of the following FHWA publications: "Manual on Uniform Traffic Control Devices for Streets and Highways," and "Standard Highway Signs," and as amended.
2. All regulatory signs shall be reflectorized unless otherwise specified.
3. All regulatory signs shall have 3/8" bolt holes drilled at appropriate locations.



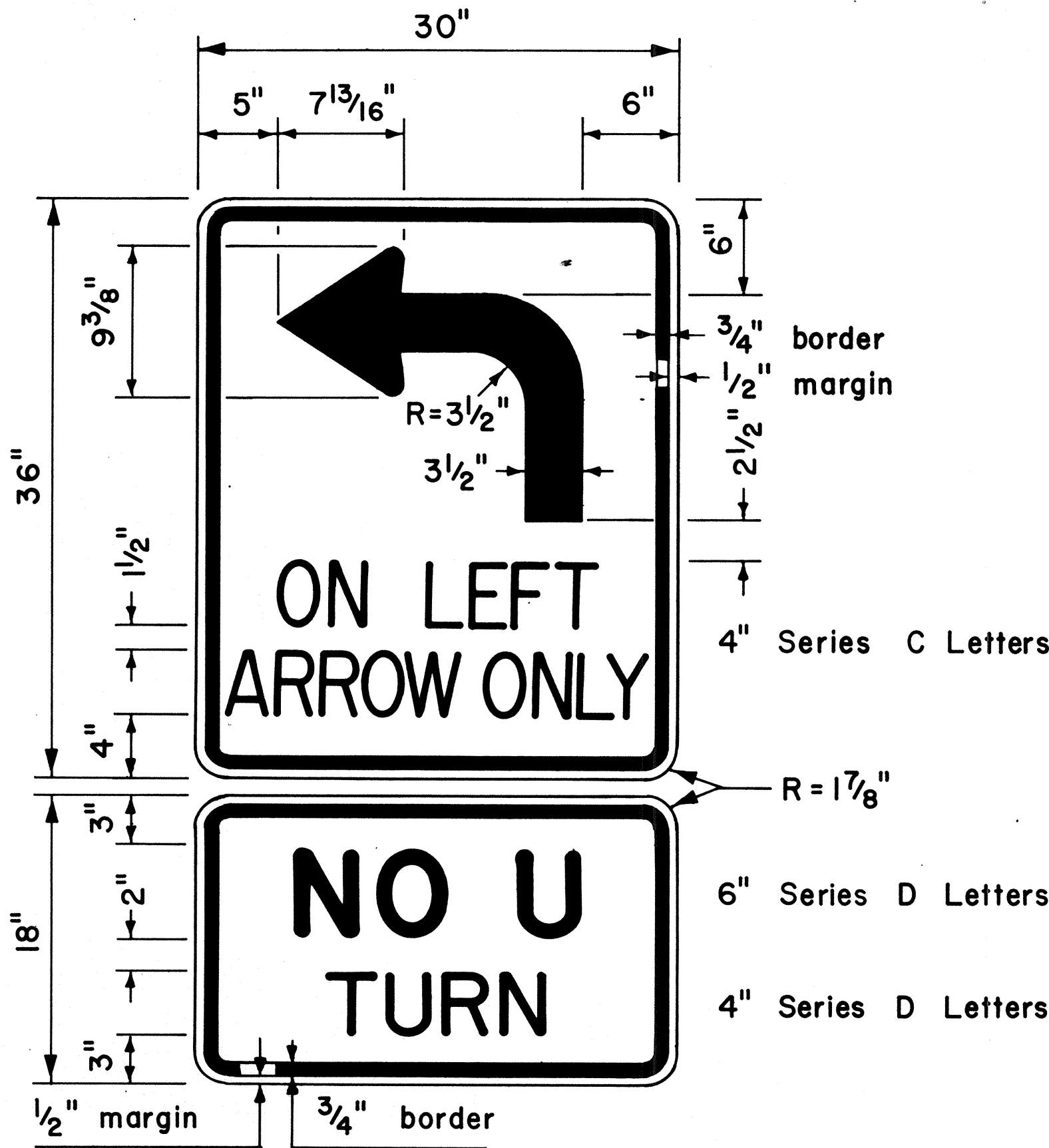
4" Series D Letters
R17-1



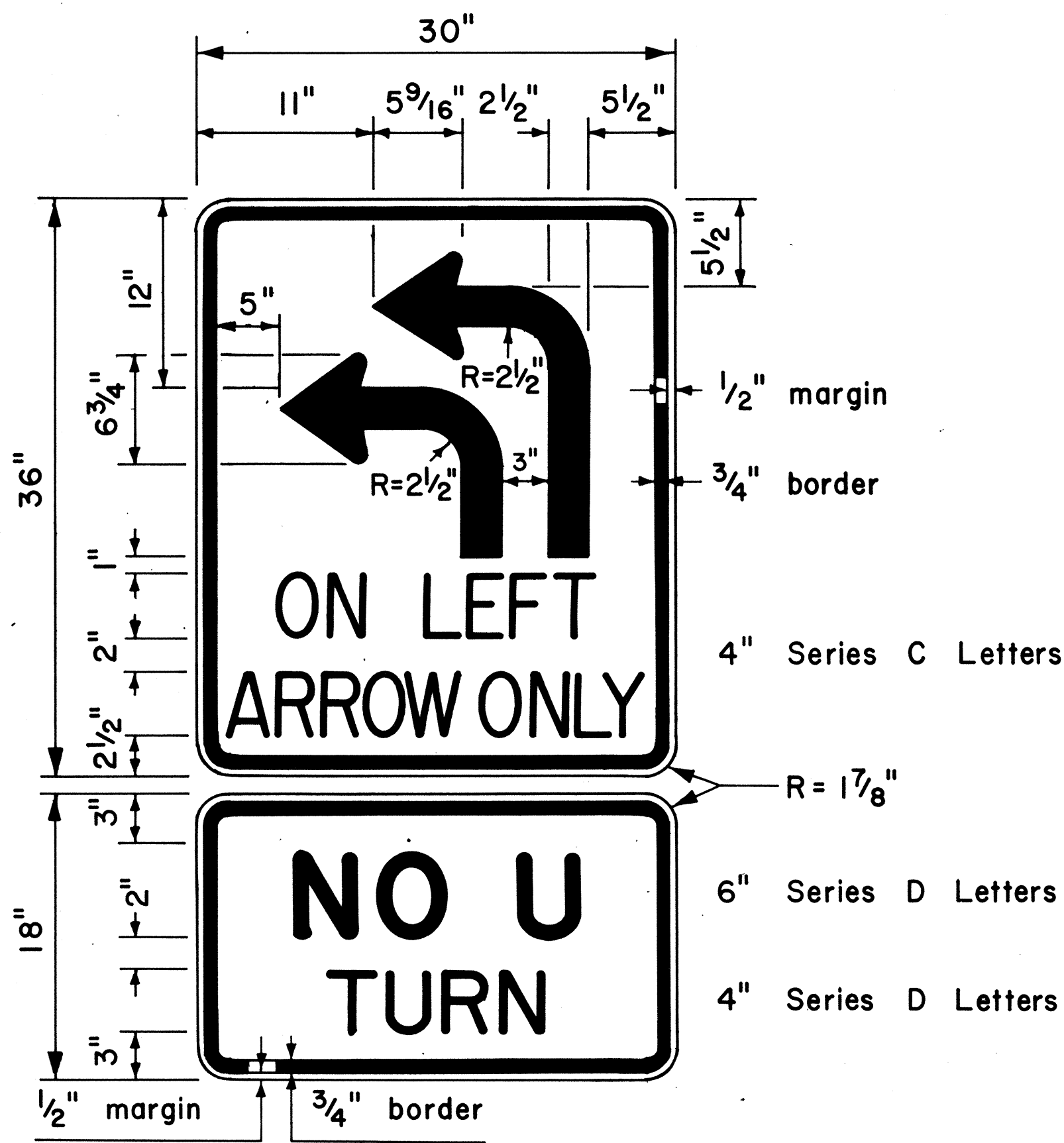
4" Series D Letters
R17-2



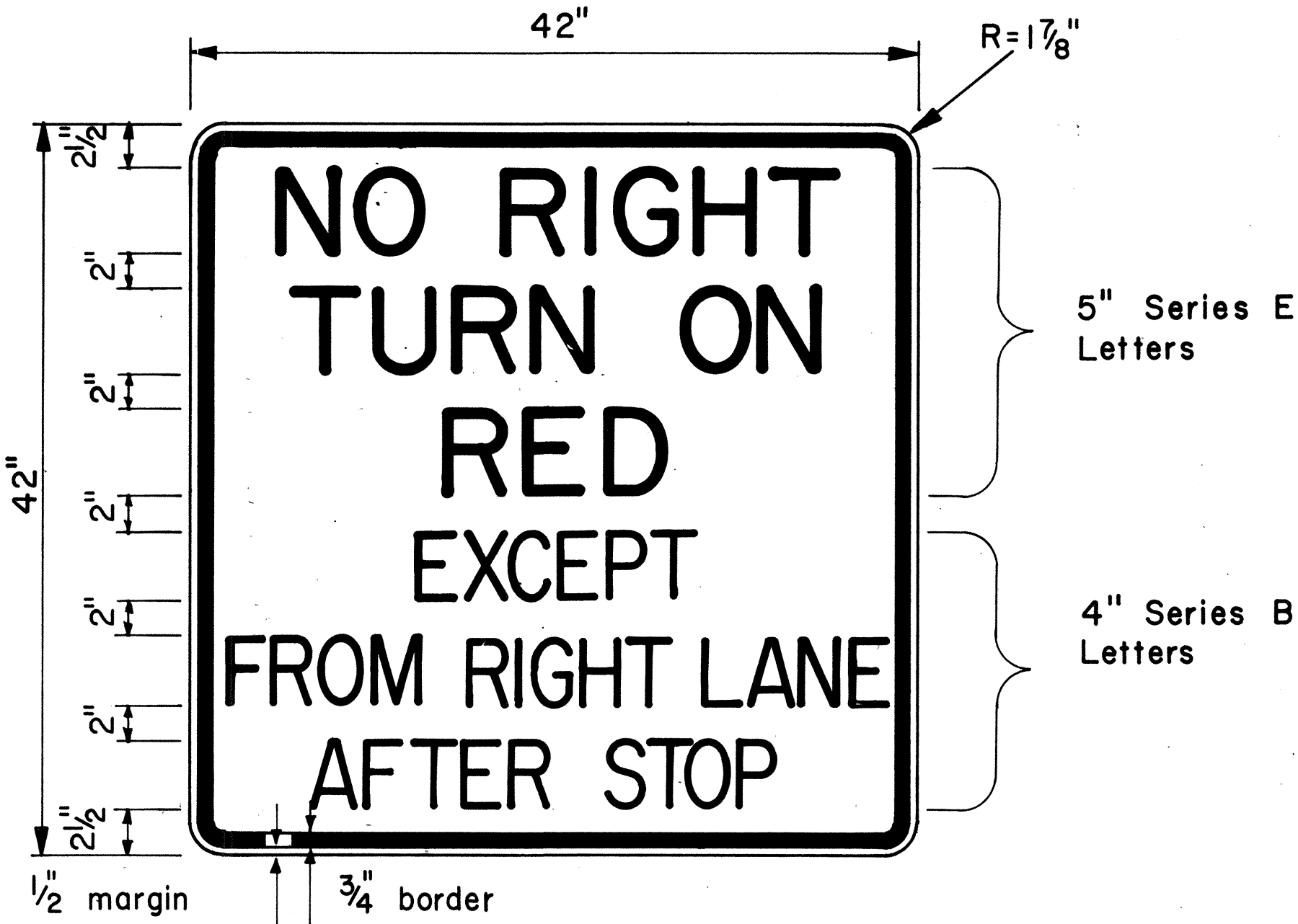
4" Series D Letters
R3-4b



R17-3



R17-4



RIO-11d

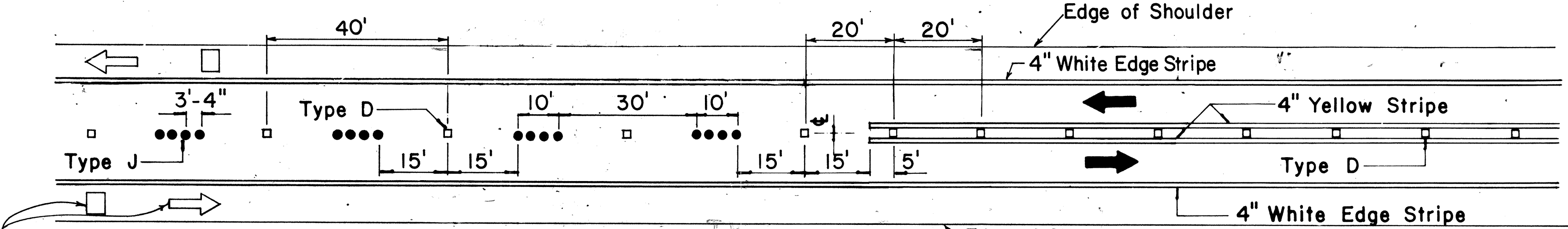
NO.	REVISION	APPROVED BY	DATE

APPROVAL RECOMMENDED:
Eishi Tanaka 8/1/77
 TRAFFIC ENGINEER DATE
 APPROVED:
Harbert Sakai 8/16/77
 ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAILS
MISCELLANEOUS
INTERSECTION SIGNS
 Scale: 1/2" = 1'-0" Date: Aug., 1977
 SHEET NO. 6 OF 13 SHEETS DT 112

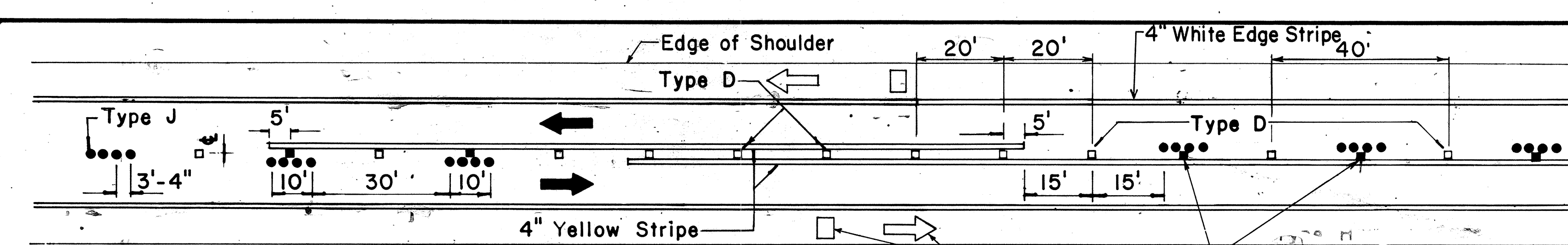
ORIGINAL	DATE
PLAN	
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
No.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-82	1983	13	19



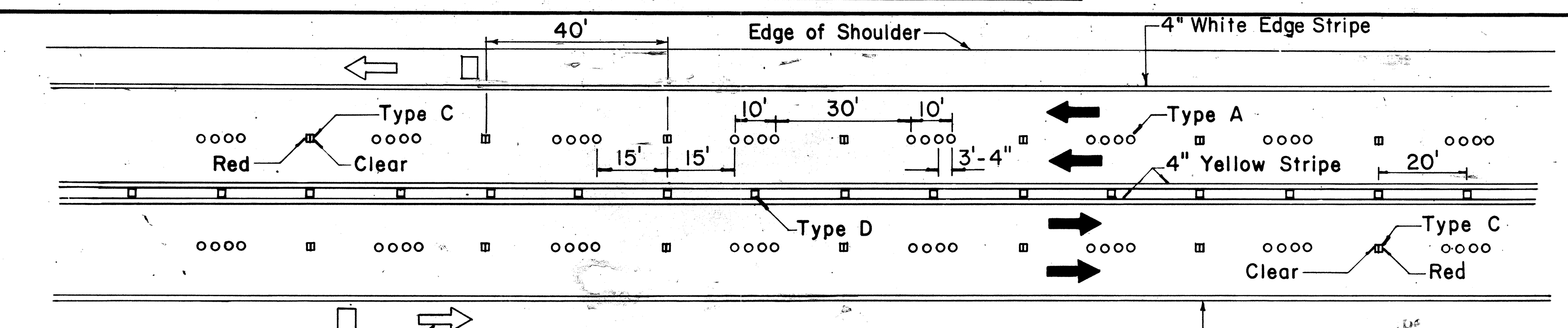
Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

PASSING PERMITTED AND PASSING PROHIBITED

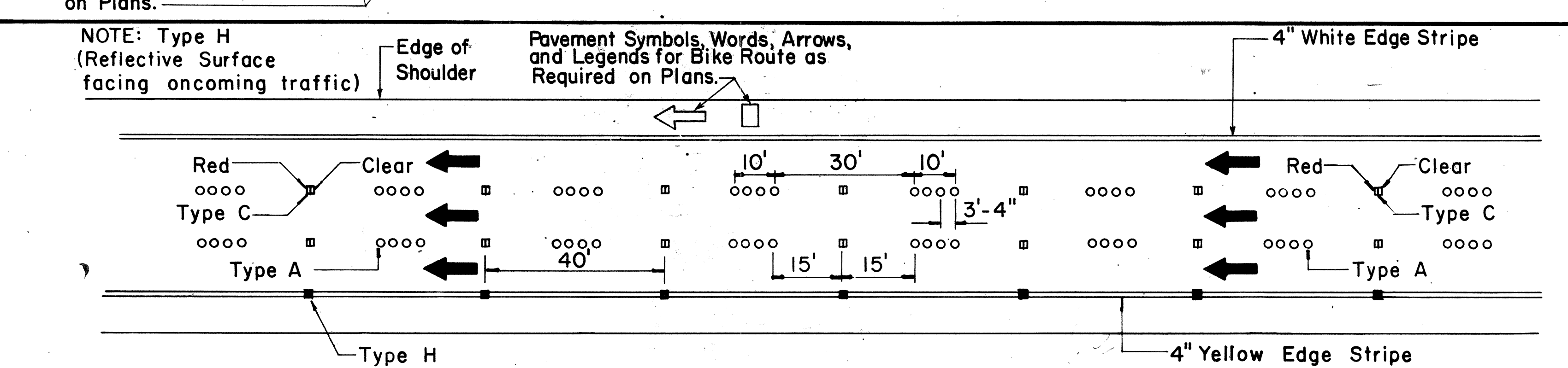


Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

PASSING PROHIBITED ZONES

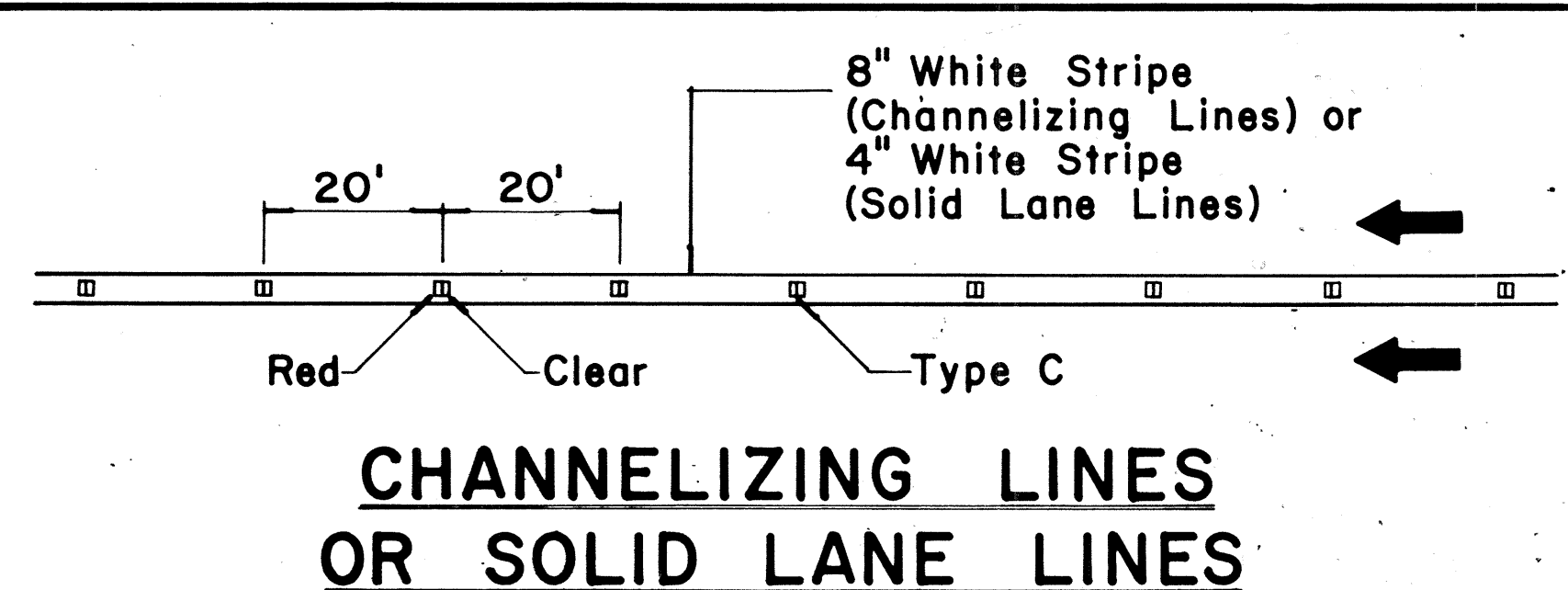


Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

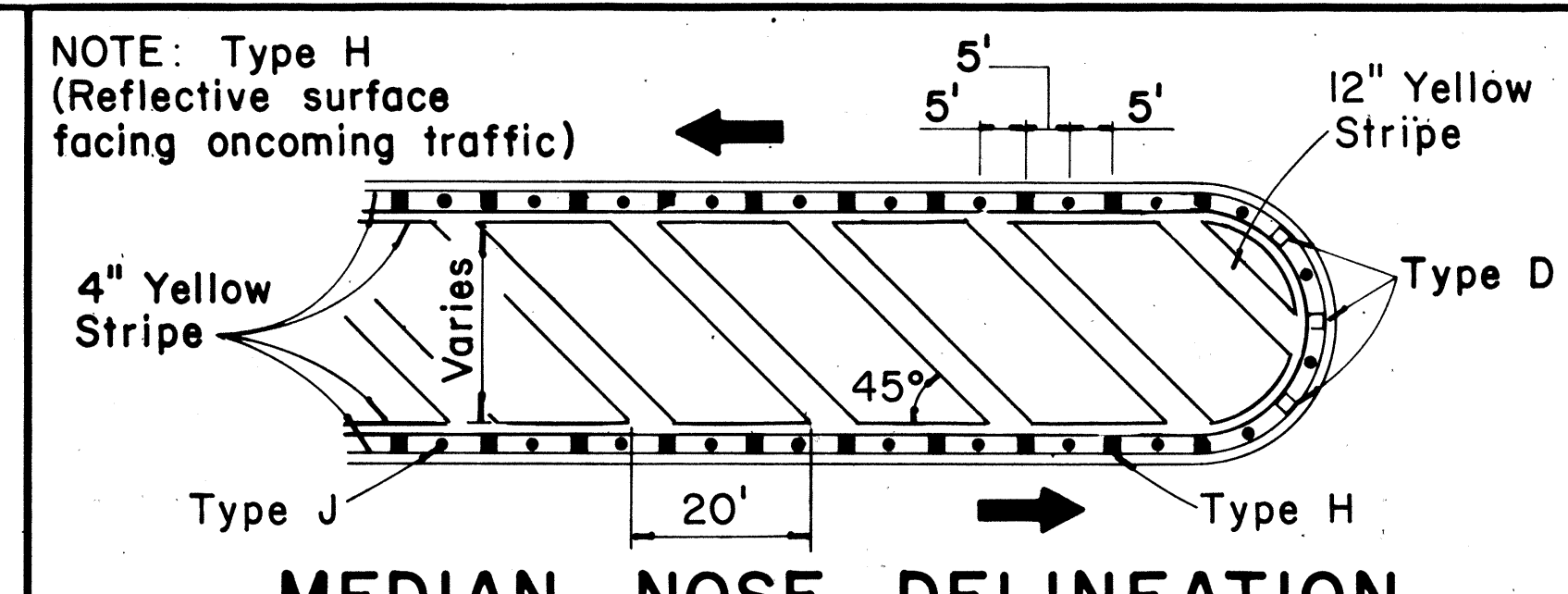


NOTE: Type H (Reflective Surface facing oncoming traffic)

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



CHANNELIZING LINES OR SOLID LANE LINES



NOTE: Type H (Reflective surface facing oncoming traffic)

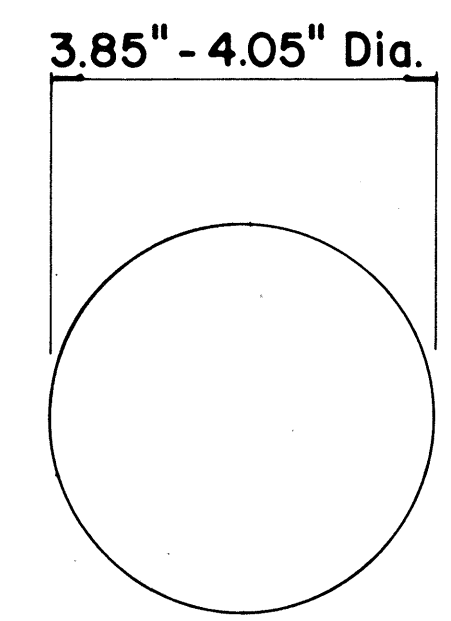
MEDIAN NOSE DELINEATION

TWO - LANE

MULTI - LANE

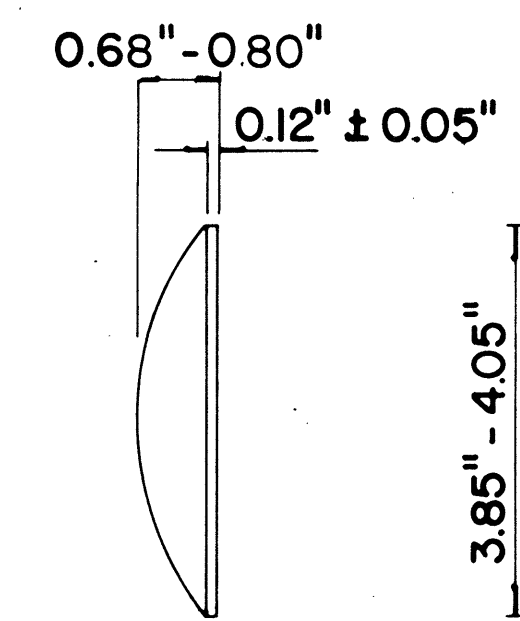
DIVIDED HIGHWAY AND FREEWAY

MISCELLANEOUS



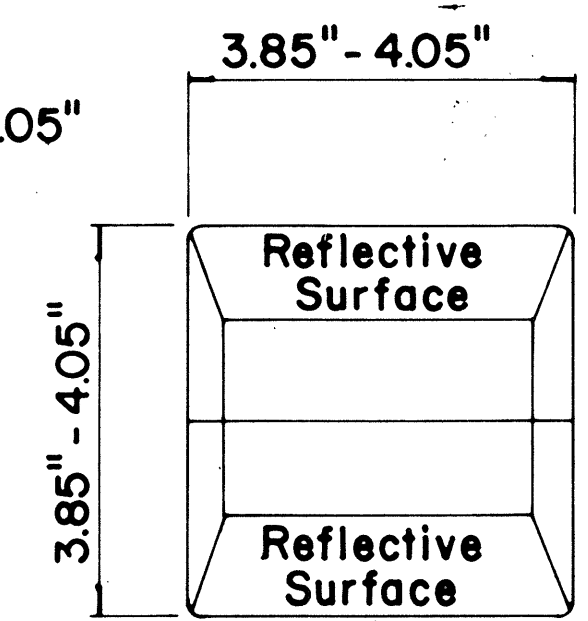
TYPE A

NON-REFLECTIVE WHITE MARKER



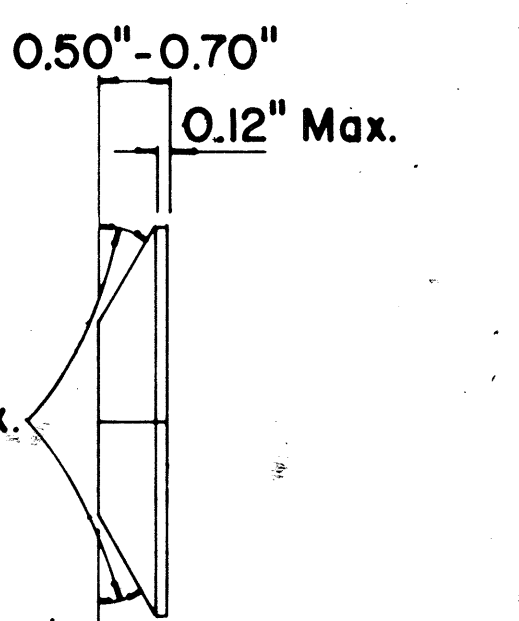
TYPE J

NON-REFLECTIVE YELLOW MARKER



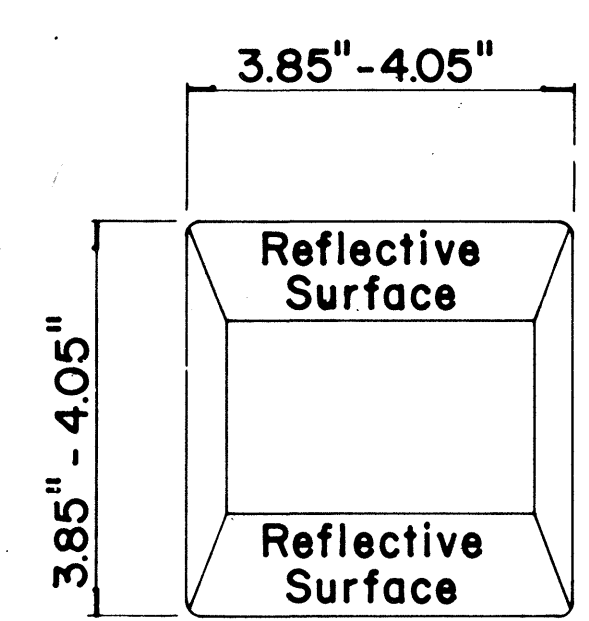
TYPE C

RED-CLEAR REFLECTIVE MARKER



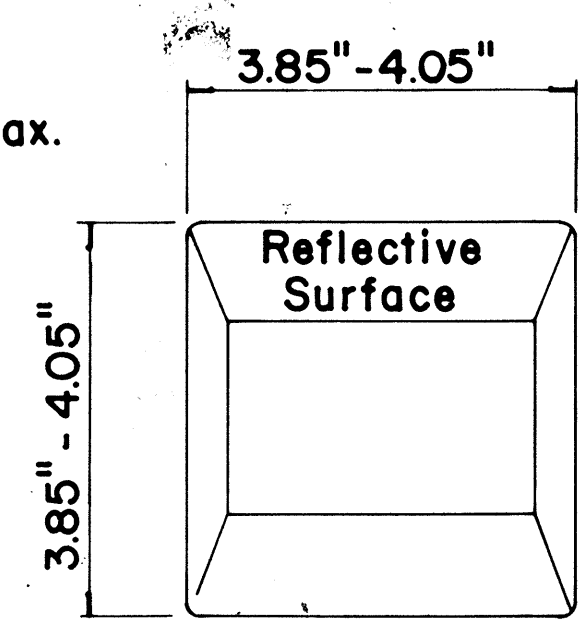
TYPE H

ONE-WAY YELLOW REFLECTIVE MARKER



TYPE D

TWO-WAY YELLOW REFLECTIVE MARKER



TYPE 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.

LEGEND

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

APPROVAL RECOMMENDED:

Eric Tanaka
TRAFFIC ENGINEER

7/21/78
DATE

APPROVED:

Robert J. Zalewski
ASSISTANT CHIEF, ENGINEERING

1/24/78
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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**STANDARD DETAILS
RAISED PAVEMENT MARKERS
AND STRIPING**

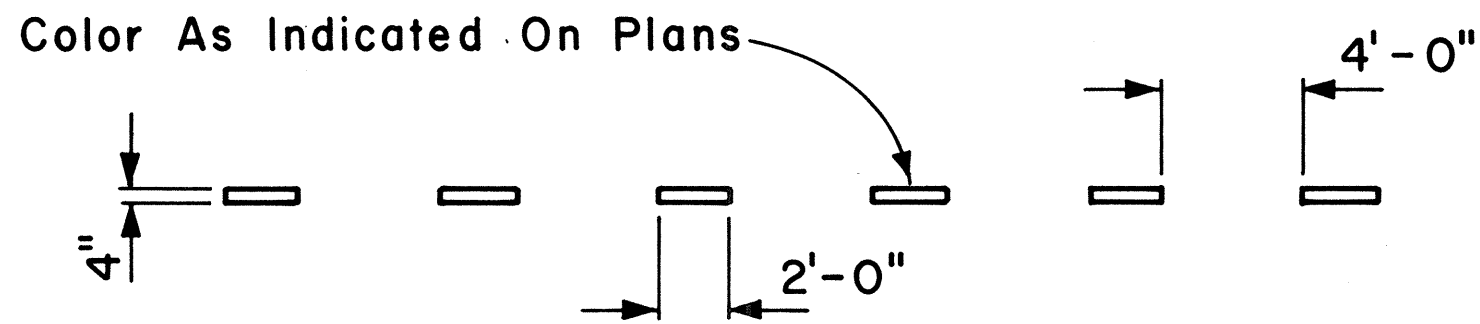
Not to Scale July 1978

SHEET No. 7 OF 13 SHEETS DT 300

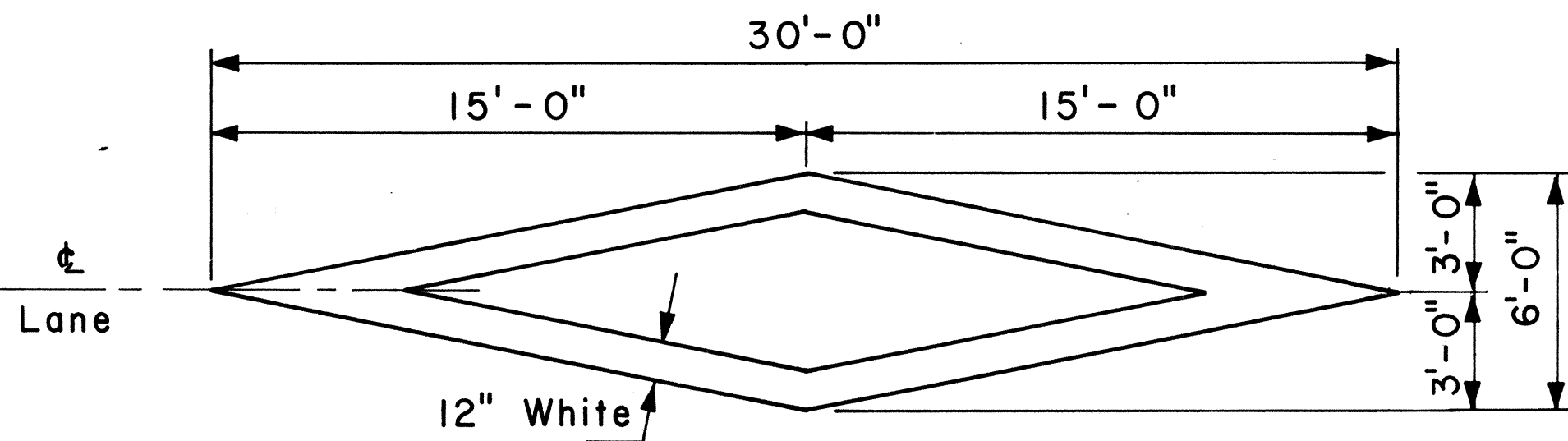
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	22D-01-82	1983	14	19

GENERAL NOTES:

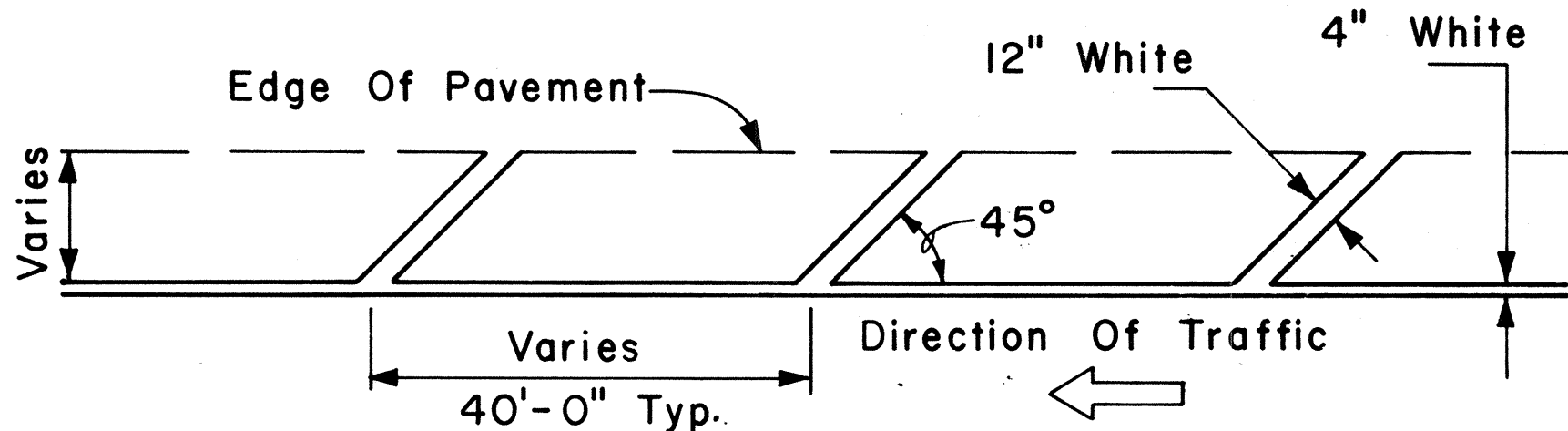
1. Pavement marking and striping shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," by the FHWA, and as amended.
2. Layout of pavement markings and striping shall be done by the Contractor. The Contractor shall check layout of markings and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



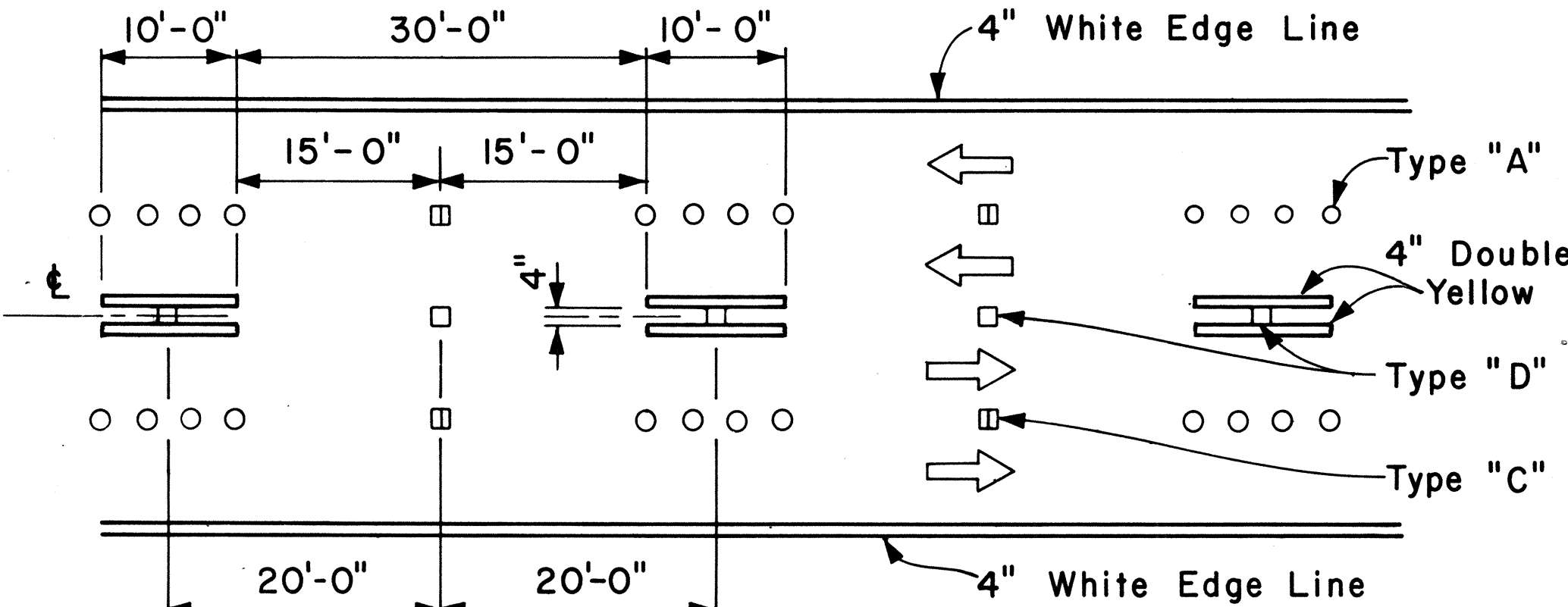
4" GUIDE LINE



PAVEMENT DIAMOND

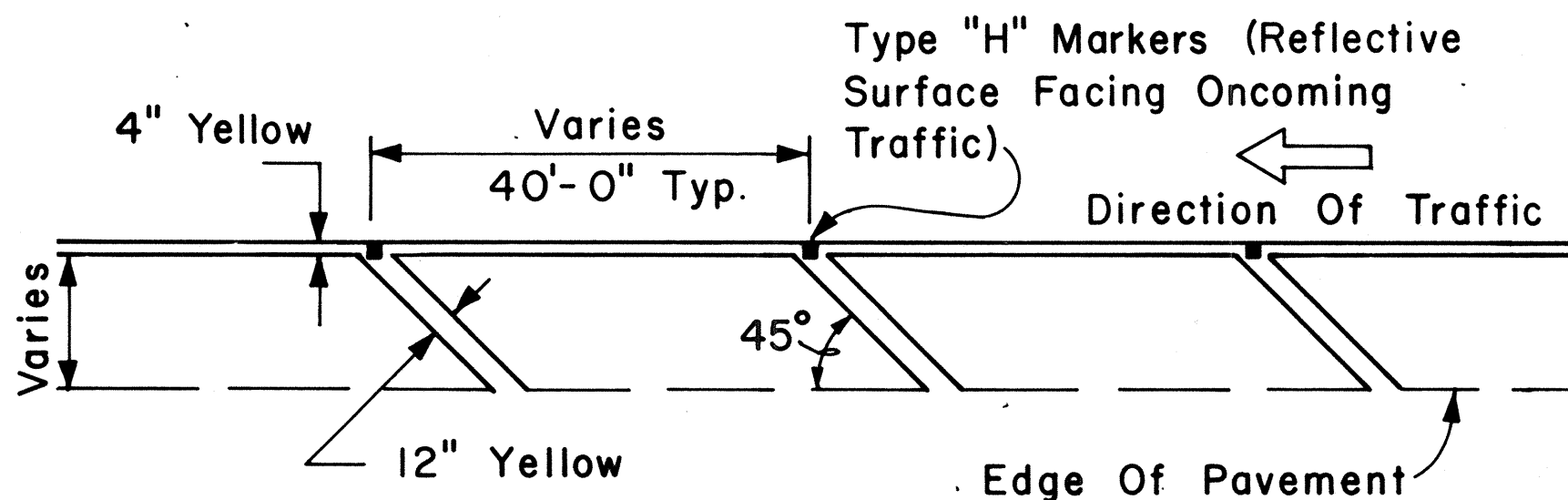


TRANSVERSE RIGHT SHOULDER MARKING

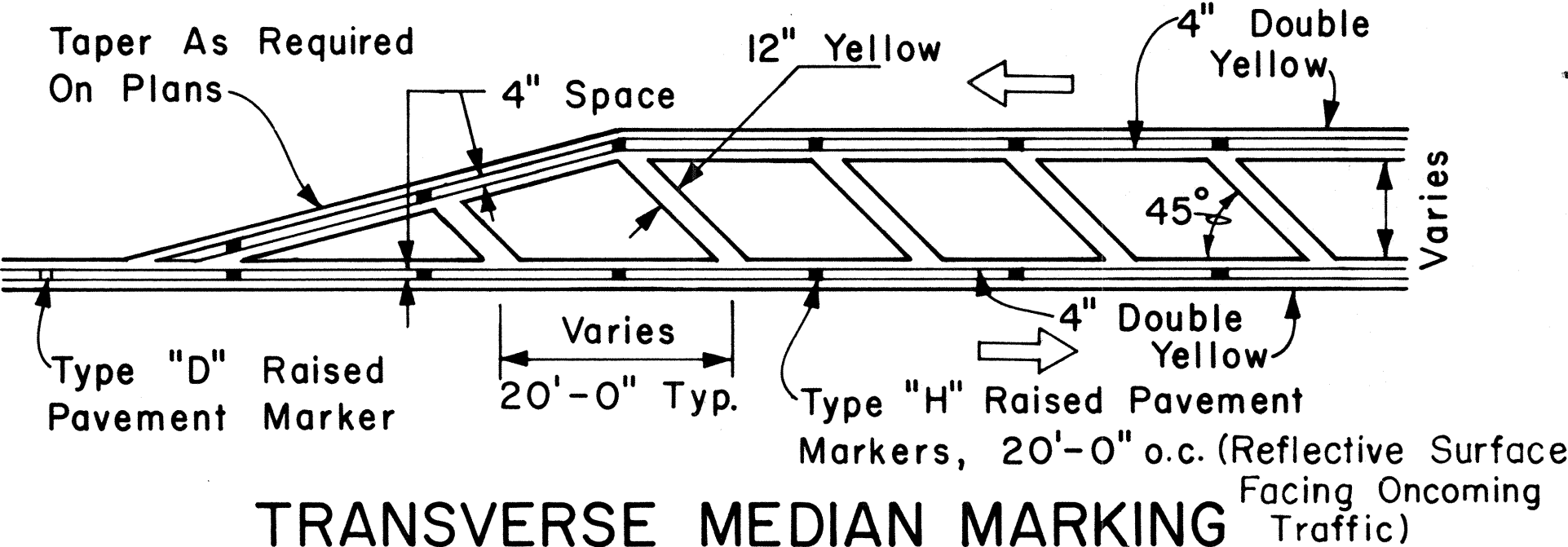


NOTE: Traffic Cone Usage Required.

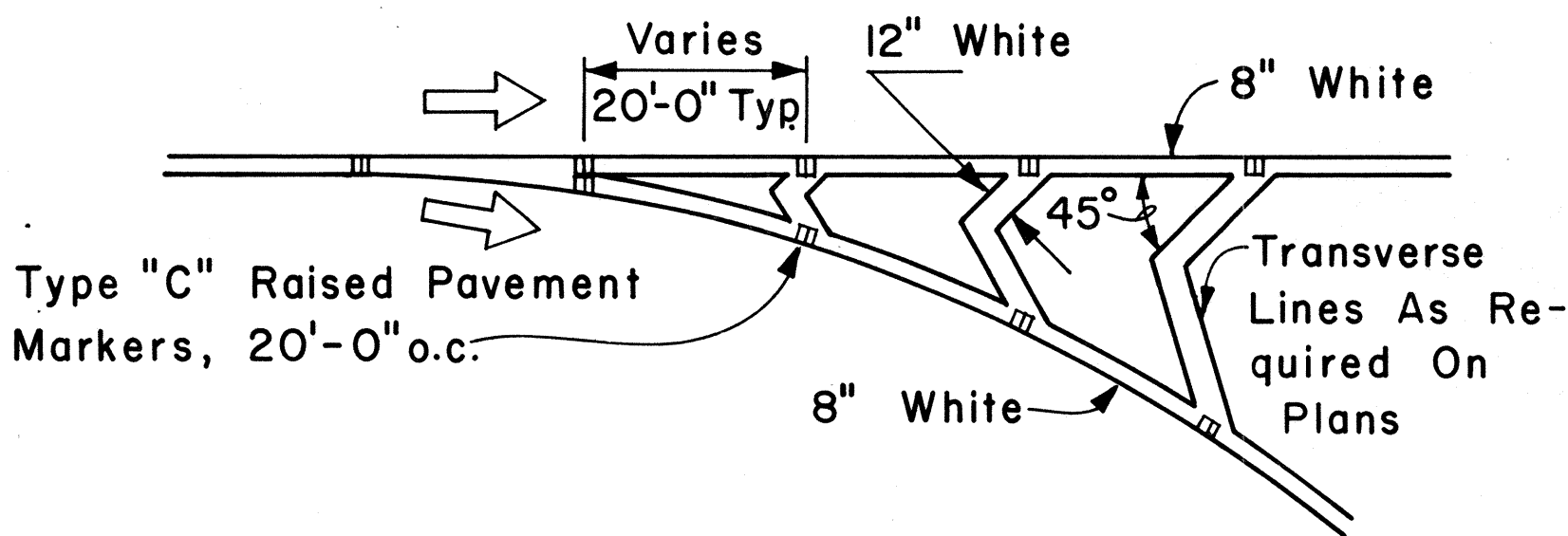
MULTI-LANE REVERSIBLE LANES



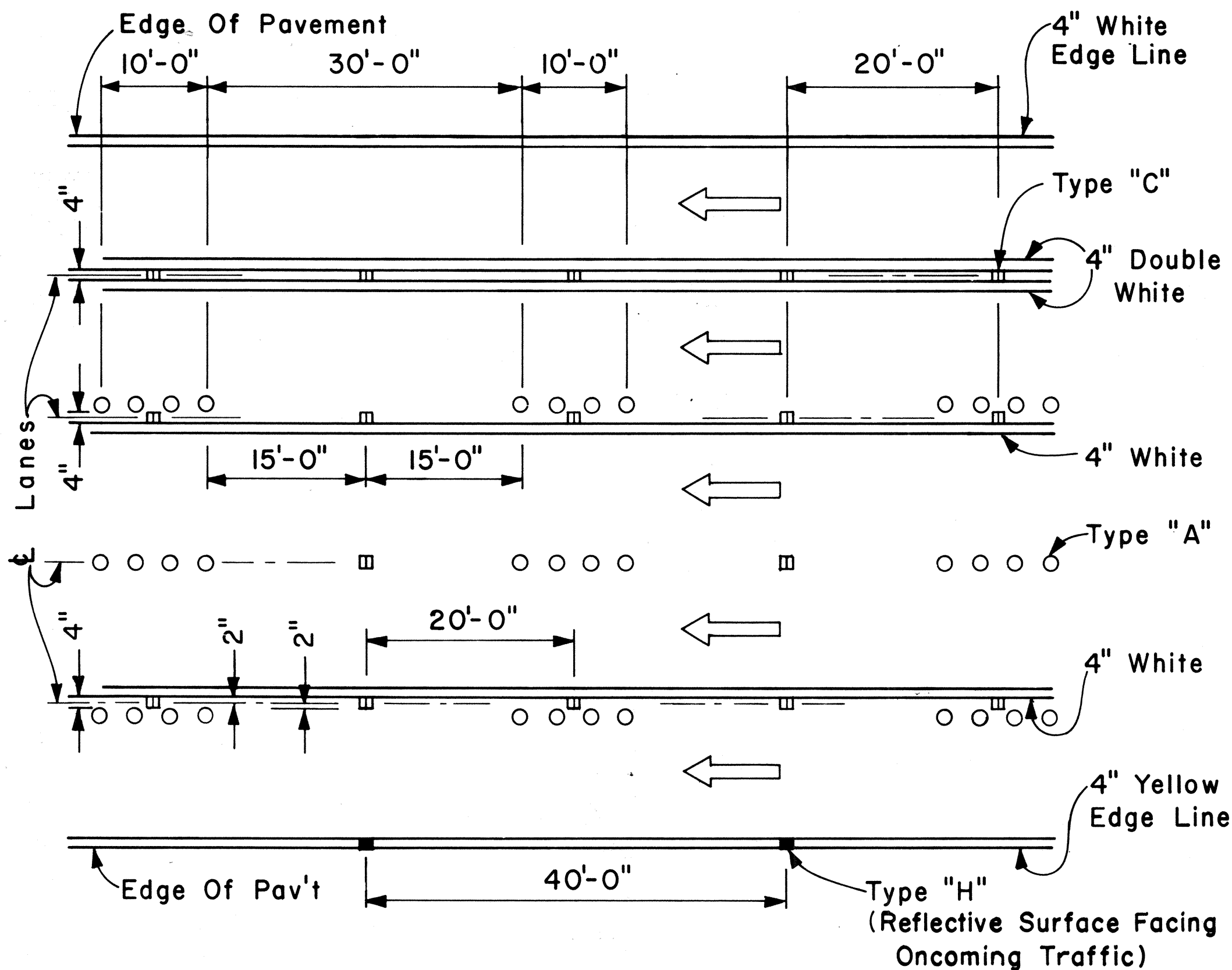
TRANSVERSE LEFT SHOULDER MARKING



TRANSVERSE MEDIAN MARKING



CHANNELIZING ISLAND



MULTI-LANE LANE CHANGE RESTRICTION ZONES

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

APPROVED: *Herbert Z. Zakei* 5/3/78
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAILS
MISCELLANEOUS
PAVEMENT MARKINGS

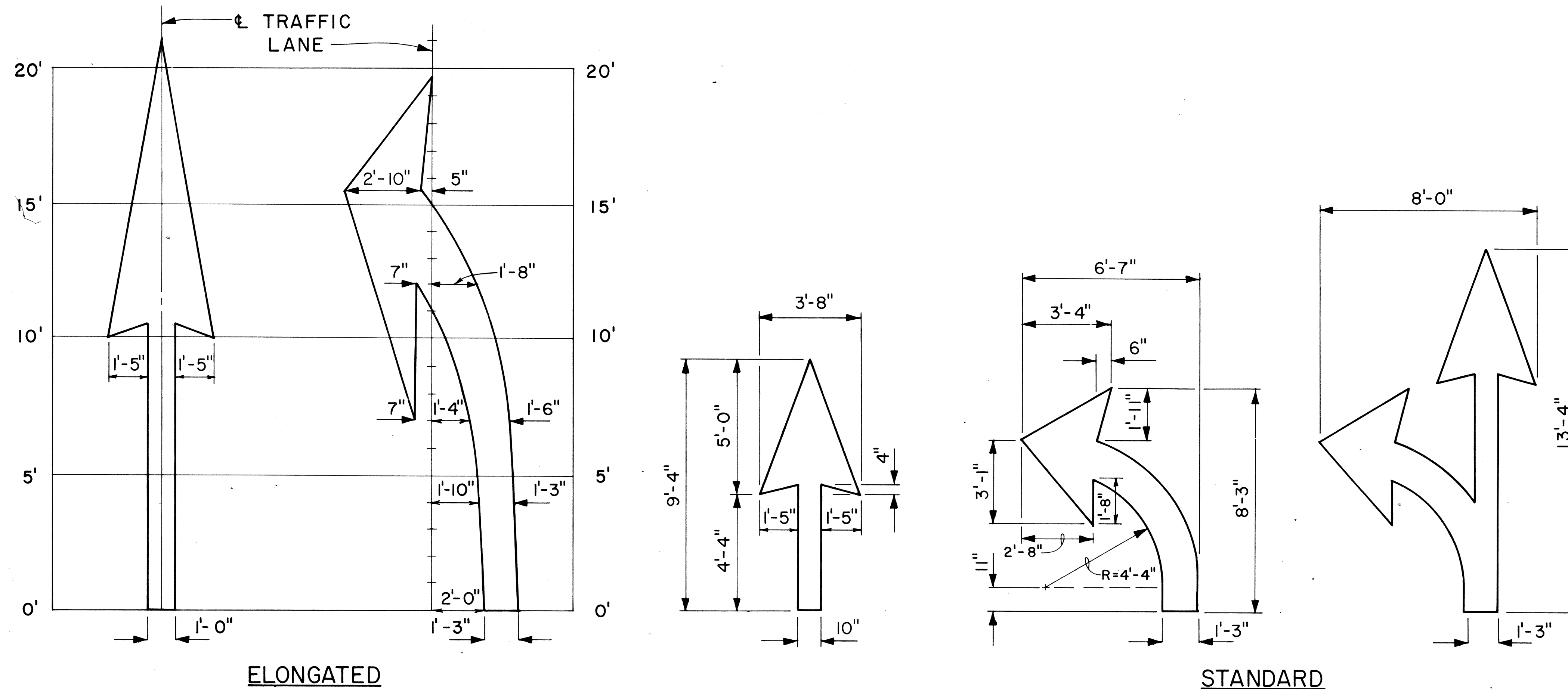
Scale: Not to Scale Date: April, 1978

SHEET NO. 8 OF 13 SHEETS DT 302

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-82	1983	15	19

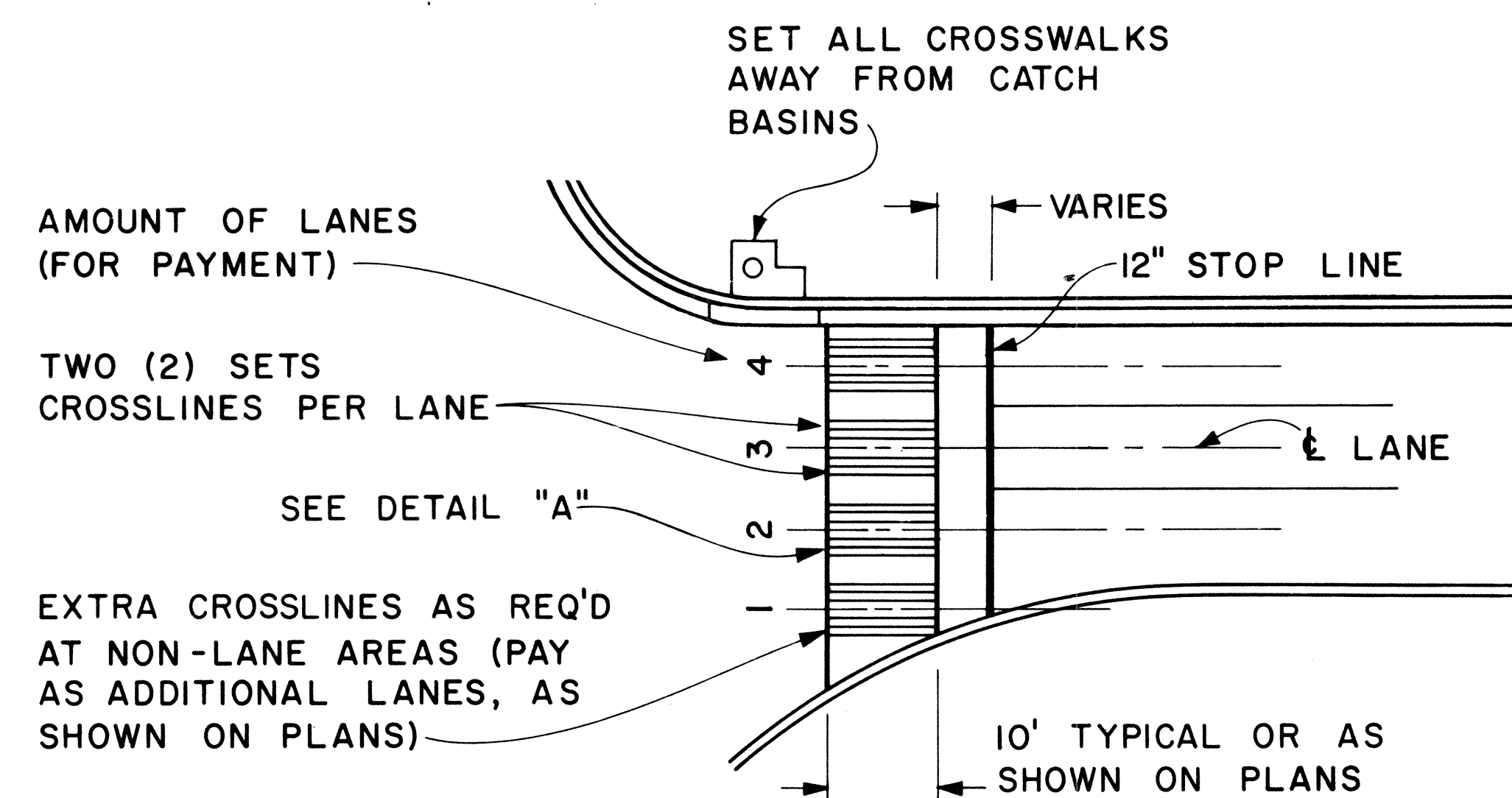
GENERAL NOTES:

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.

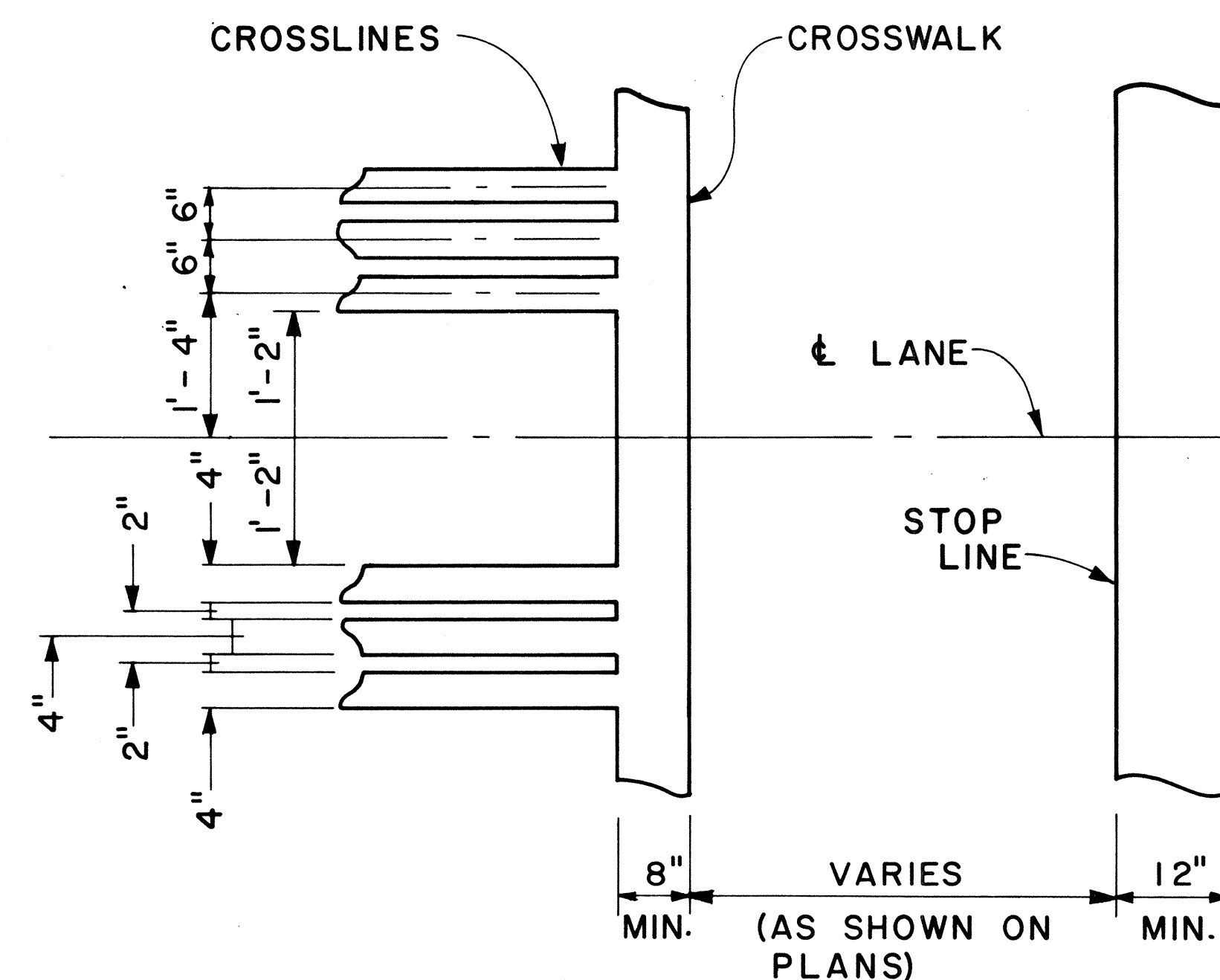


PAVEMENT ARROWS

Scale: 3/8" = 1'



PLAN



DETAIL "A"

CROSSWALK & STOP LINE

Scale: Not to Scale

APPROVAL RECOMMENDED:
Eric H. Tanaka
 TRAFFIC ENGINEER
 DATE: 5/2/78

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

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. 9 OF 13 SHEETS DT 306

2'-0"

1'-4"

1/4"

1/2"

1'-11 3/4"

1/4"

1/2"

2'-8"

1/4"

1/2"

1/4"

A

B

For Conduit Openings See Plans

PLAN

1' - 11 1/2"

1' - 3 3/4"

1/2" Thick

PLAN OF COVER

[illegible]

2'-8"

8" 1'-4" 8"

1'-2 1/4" 5/8" 4" 5/8"

Prying recess

STATE HIGHWAYS

B B

3-#6 Bars welded to plate

3/8" Retractable galvanized handle with nut

PLAN OF COVER

1'-6 3/4"

SECTION "A-A"

Light weight conc. cover

Recess

2" x 2" x #16 WM

#6 Bar

4"

1/4" Steel plate

Galvanized washer

1. D. 7/16

O. D. 1"

Scale: 3"=1'-0"

2'-0"

2'-2 1/4"

1 1/8"

1/2"

5/8"

1 1/4"

1/2"

7" Min.

12" Max.

4"

4"

Class A Concrete

Bricks with Mortar. Mortar between all contact surfaces.

8" x 8" x 8" Coarse Aggregate #67

5/8" ϕ x 8'-0" Ground Rod (as required)

Varies (to be determined in the field)

SECTION A-A

The drawing consists of two main views: a Side Elevation on the left and an End Elevation on the right. Both views show a trapezoidal structure with a flat top and a wider base, representing the pullbox. The top surface is labeled with dimensions: 3' - 0 1/2" for the Side Elevation and 1' - 6 3/4" for the End Elevation. The base is labeled with dimensions: 2' - 6 1/4" for the Side Elevation and 1' - 0 1/2" for the End Elevation. The height of the structure is indicated as 5' in the Side Elevation and 6' in the End Elevation. The structure is made of bricks with mortar between all contact surfaces. The base is made of 8" x 8" coarse aggregate No. 67. The drawing also shows 1/2" diameter holes for expansion bolts and a 1/4" thick layer of material at the base. A note indicates that the base material varies to be determined in the field. The drawing is titled "TYPE 'C' PULLBOX" and includes a scale of 1 1/2" = 1' - 0".

SIDE ELEVATION

END ELEVATION

TYPE "C" PULLBOX

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

TYPE "A" 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

15" square

1 3/4"

12 1/4"

STATE HIGHWAYS

STREET LIGHTS
or
TRAFFIC SIGNAL
As applicable

Cast iron or 3/8" rolled steel plate
with non-slip abrasive surfacing

PLAN OF COVER

Technical drawing of the Plan view of a cast iron frame. The drawing shows a rectangular frame with a central rectangular opening. The outer dimensions are 2' - 4" by 2' - 7". The inner dimensions are 1' - 6" by 9 1/2". The frame has a thickness of 3/8". The central opening has a diameter of 4 - 3". The drawing includes dimension lines and labels for the frame and the central opening.

Labels in the drawing include:

- 2' - 4"
- 2' - 7"
- 1' - 6"
- 9 1/2"
- 4 - 3" Dia. holes
- Cast iron frame
- PLAN

Width = W

Except where noted, details shall conform to cover details for Type "A" or Type "B" Pullbox (as specified on plans).

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

APPROVAL RECOMMENDED: *E. J. ...* 12/29/69
TRAFFIC ENGINEER DATE

APPROVED: *E. J. ...* 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

The drawing consists of two views of a cover detail:

- TOP VIEW:** A rectangular cover with a cross-hatched pattern. It features two vertical rectangular cutouts. The total width is labeled as W . The cover is supported by two L-shaped brackets.
- SIDE VIEW:** Shows the cover's profile. The total width is divided into three equal sections, each labeled $W/3$. The cover has a thickness of $3/16"$. The supporting brackets are labeled $L2" \times 2" \times 1/4"$.

Annotations include "TOP VIEW" and "SIDE VIEW" centered under their respective drawings, and "Not to Scale" at the bottom.

2' - 4"

1' - 1 3/4"

3/4"

2 5/8"

1 3/8"

3/8"

Cover

3/8"

1 3/8"

2 5/8"

7"

2' - 3"

Class A conc.

Varies (to be determined in the field)

Bricks with Mortar. Mortar between all contact surfaces

8" x 8" x 8" Coarse Aggregate No. 67

SIDE ELEVATION

1' - 7"

1' - 1 3/4"

3/4"

2 5/8"

1 3/8"

3/8"

Cover

3/8"

1 3/8"

2 5/8"

7"

2' - 3"

Bricks with Mortar. Mortar between all contact surfaces

8" x 8" x 8" Coarse Aggregate No. 67

END ELEVATION

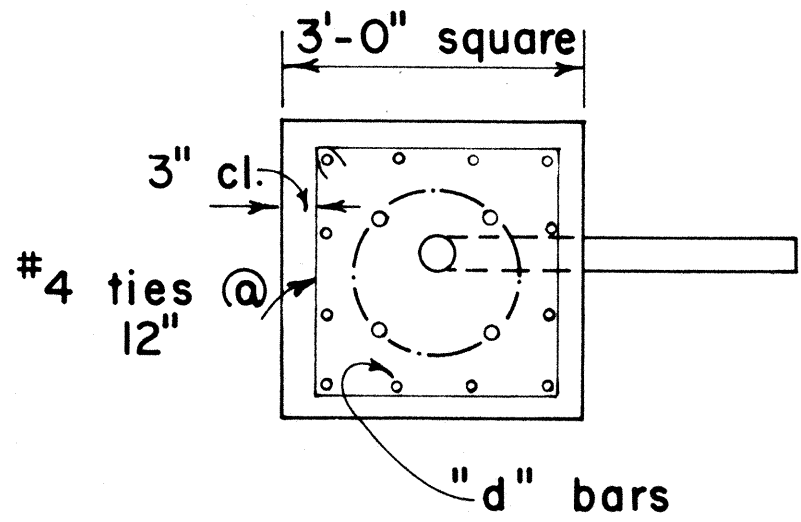
TYPE "B" PULLBOX

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

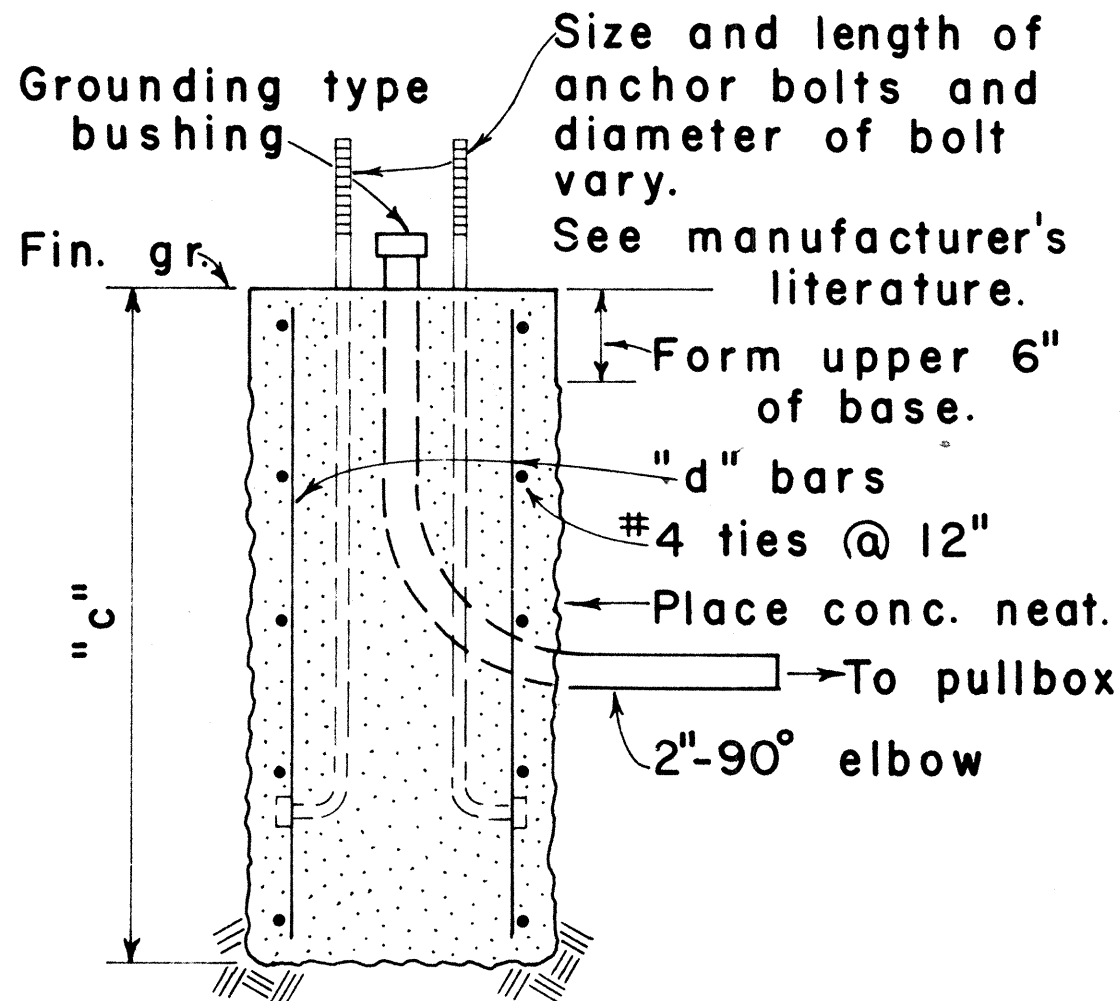
NO.	REVISION	APPROVED BY	DATE
1	Revised Type B & C Pullbox details	H.T.	3-5-78
2	Revised Type "A" Pullbox & Added Modified Cover.	H.T.	1-31-80

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
PULLBOXES

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-82	1983	18	19



PLAN - SECTION

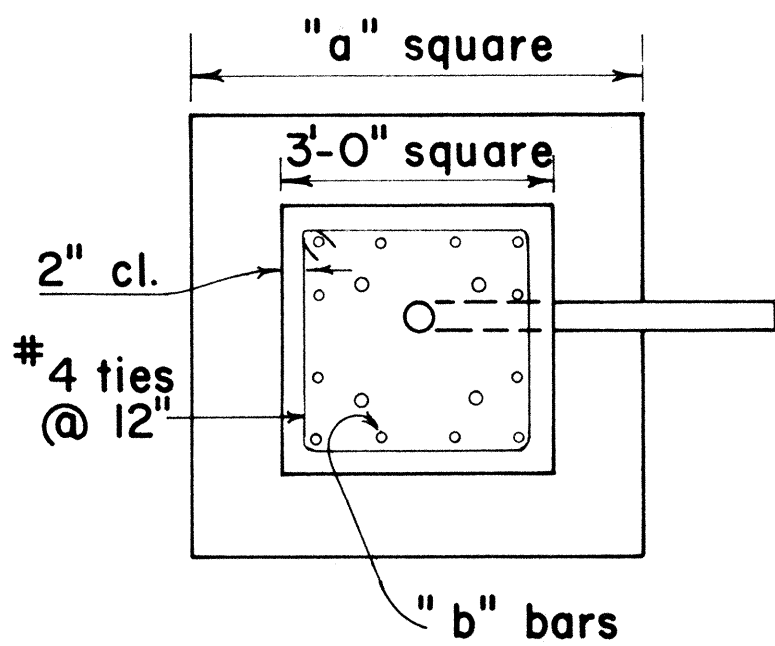


NOTE:
Concrete shall be Class B.

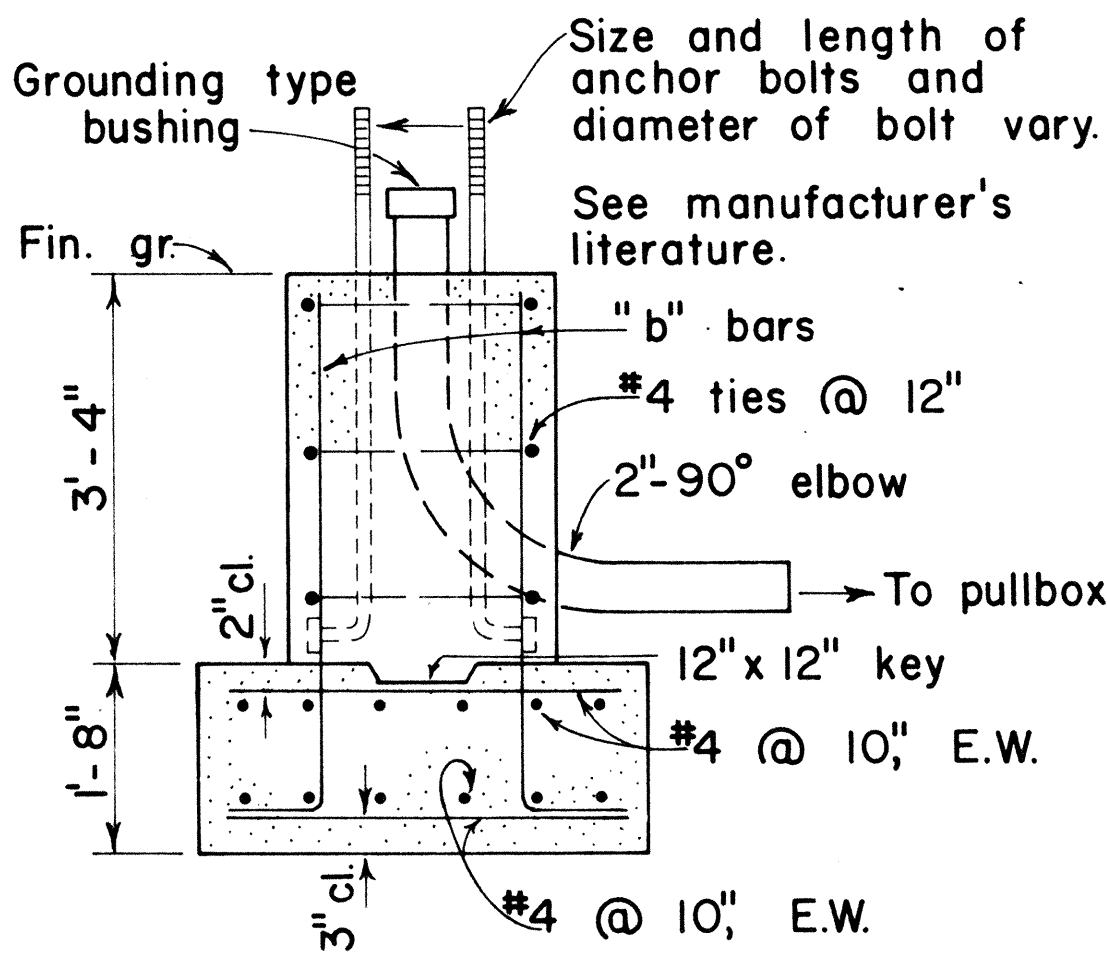
SECTION

MAST ARM LENGTH	"c"	"d" BARS
16' - 18'	5' - 0"	12 - #6
20'	5' - 6"	12 - #6
25'	6' - 0"	12 - #6
30'	6' - 6"	12 - #6
35'	7' - 0"	12 - #8
40'	8' - 0"	12 - #8

TYPE II



PLAN - SECTION



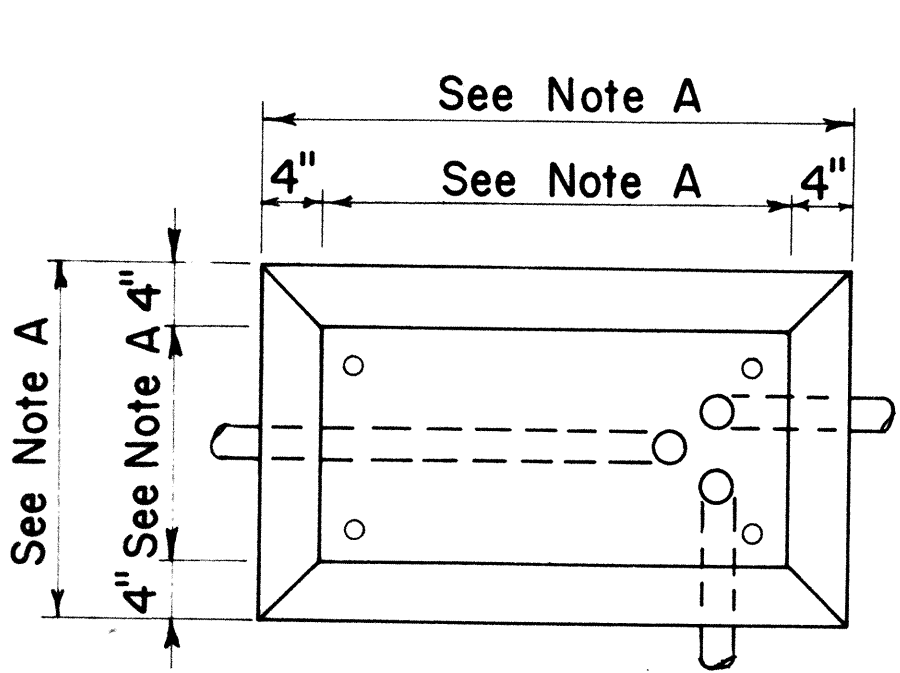
NOTE:
Concrete shall be Class B.

SECTION

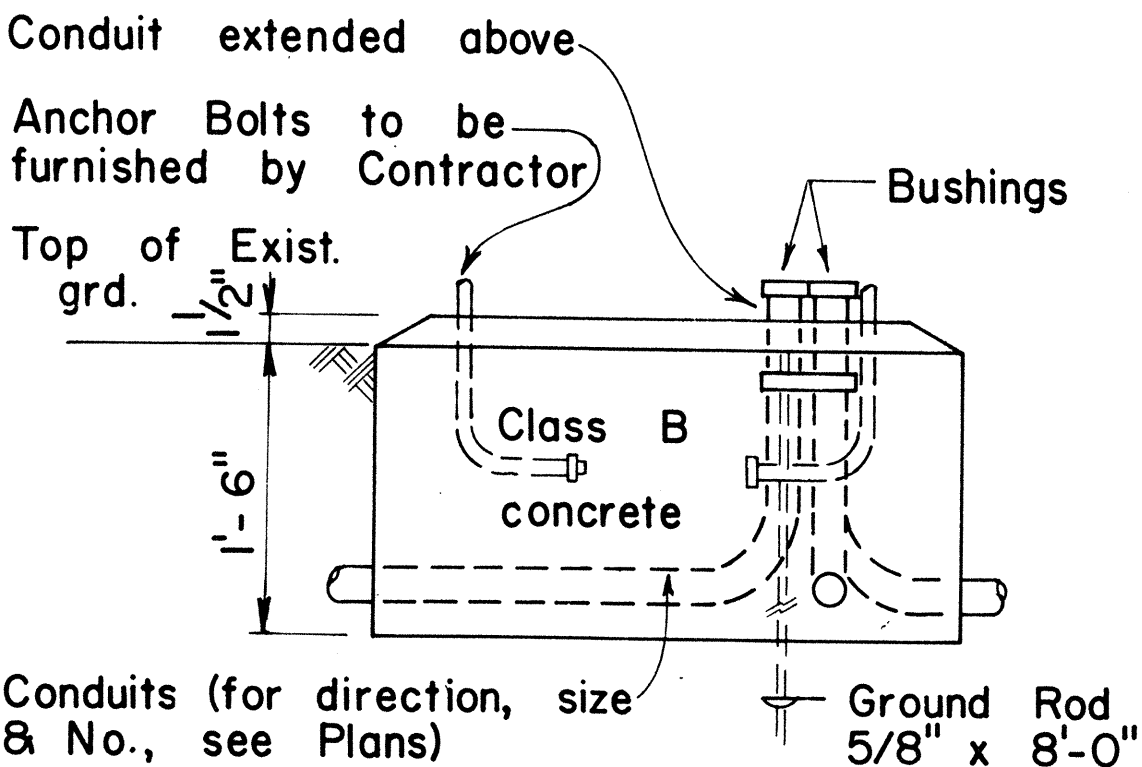
MAST ARM LENGTH	"a"	"b" BARS
16' - 18'	5' - 0"	12 - #6
20'	5' - 6"	12 - #6
25'	6' - 0"	12 - #6
30'	6' - 6"	12 - #8
35'	6' - 6"	12 - #8
40'	7' - 0"	12 - #8

TYPE IIA

FOOTING FOR MAST ARM STANDARD



PLAN



ELEVATION

CONCRETE BASE FOR CONTROLLER CABINET

- NOTES:
- Dimensions to be determined by the size of the Controller Cabinet to be furnished under this Contract.
 - Details of Conduits, Anchor Bolts, etc., are approximate only. Exact details shall be secured by the Contractor from Manufacturer.

APPROVAL RECOMMENDED:
E. A. Tanaka 3/4/76
TRAFFIC ENGINEER DATE

APPROVED:
Robert B. Sakash 2-8-76
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

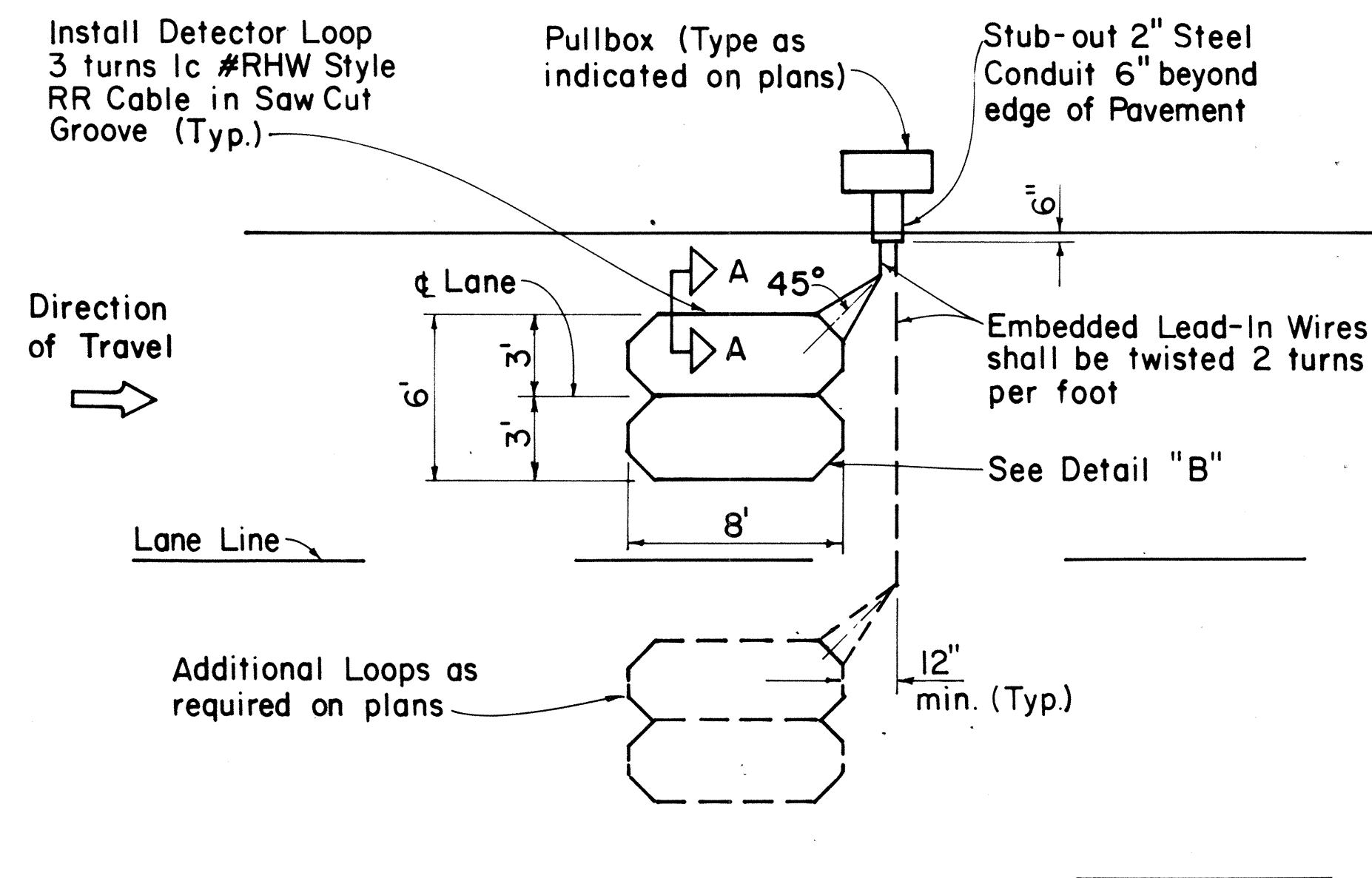
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

TRAFFIC SIGNAL SYSTEM
MISCELLANEOUS DETAILS

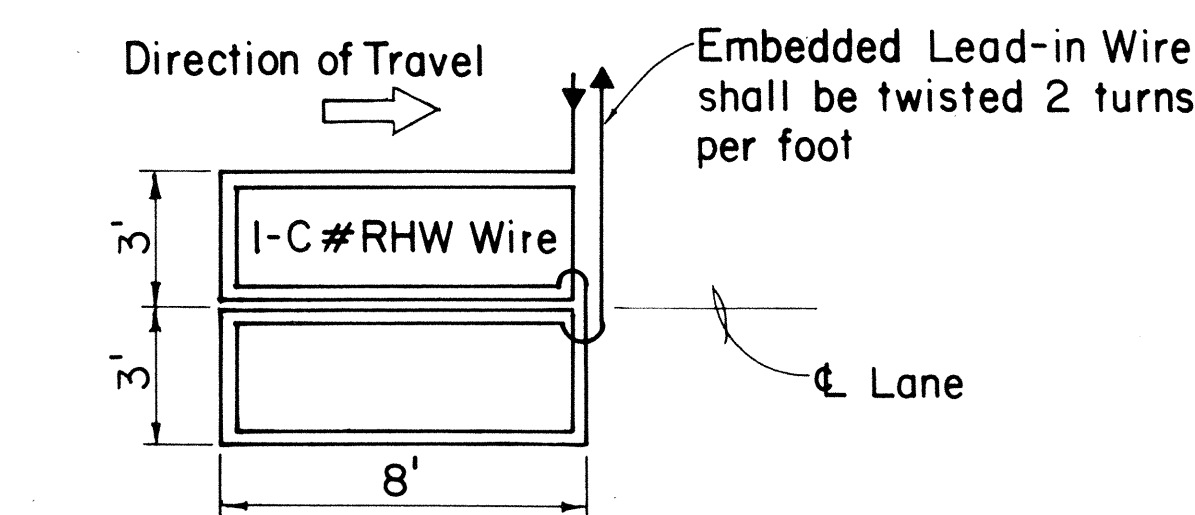
Not to Scale
SHEET No. 12 OF 13 SHEETS DT404

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

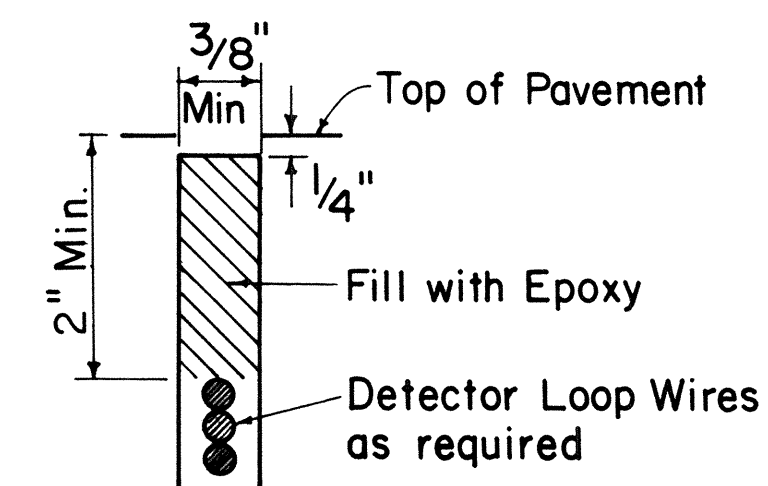
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-82	1983	19	19



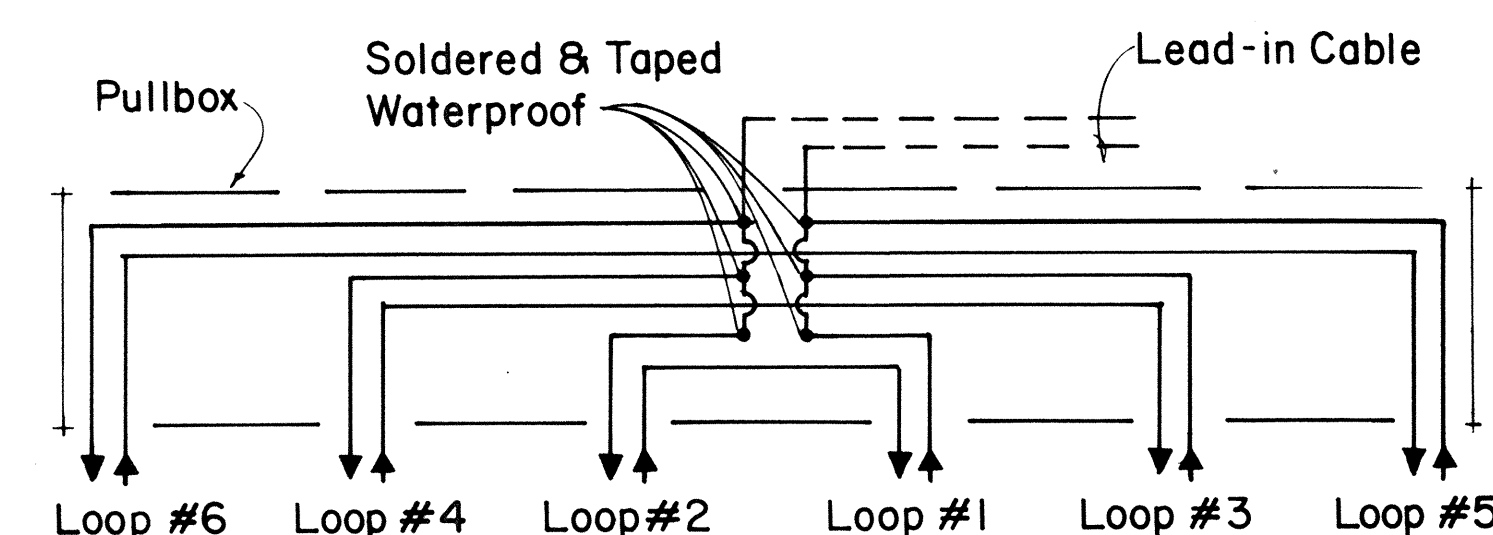
SINGLE LOOP LAYOUT



WIRING DIAGRAM



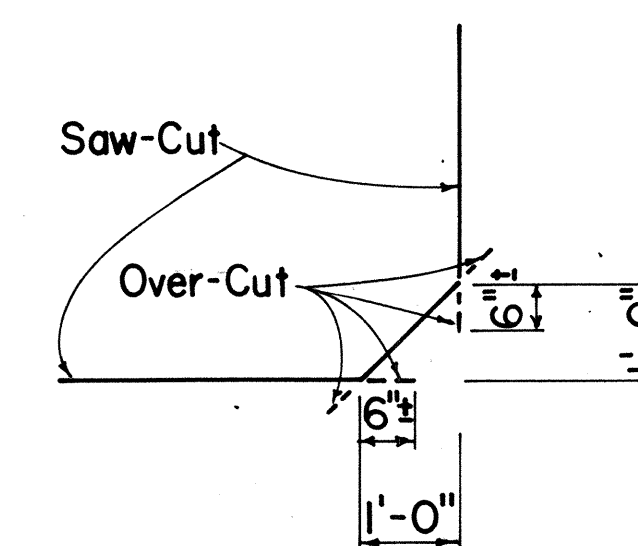
DETECTOR LOOP SAW-CUT SECTION A-A (TYPICAL)



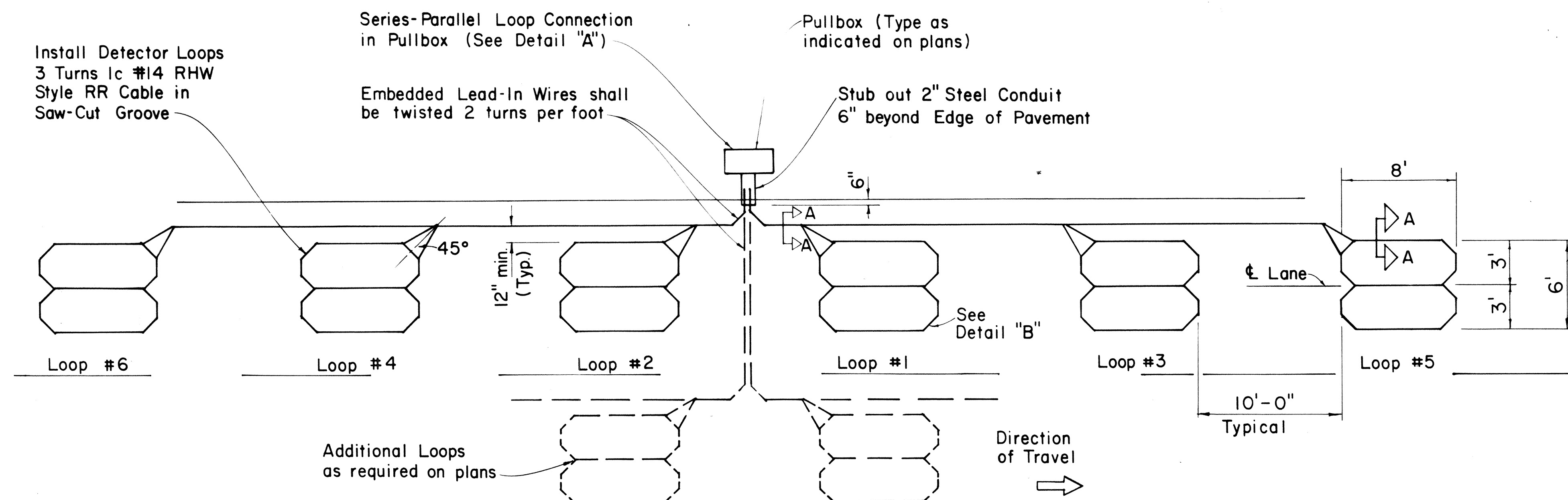
DETAIL "A"

TYPICAL SERIES-PARALLEL LOOP CONNECTION

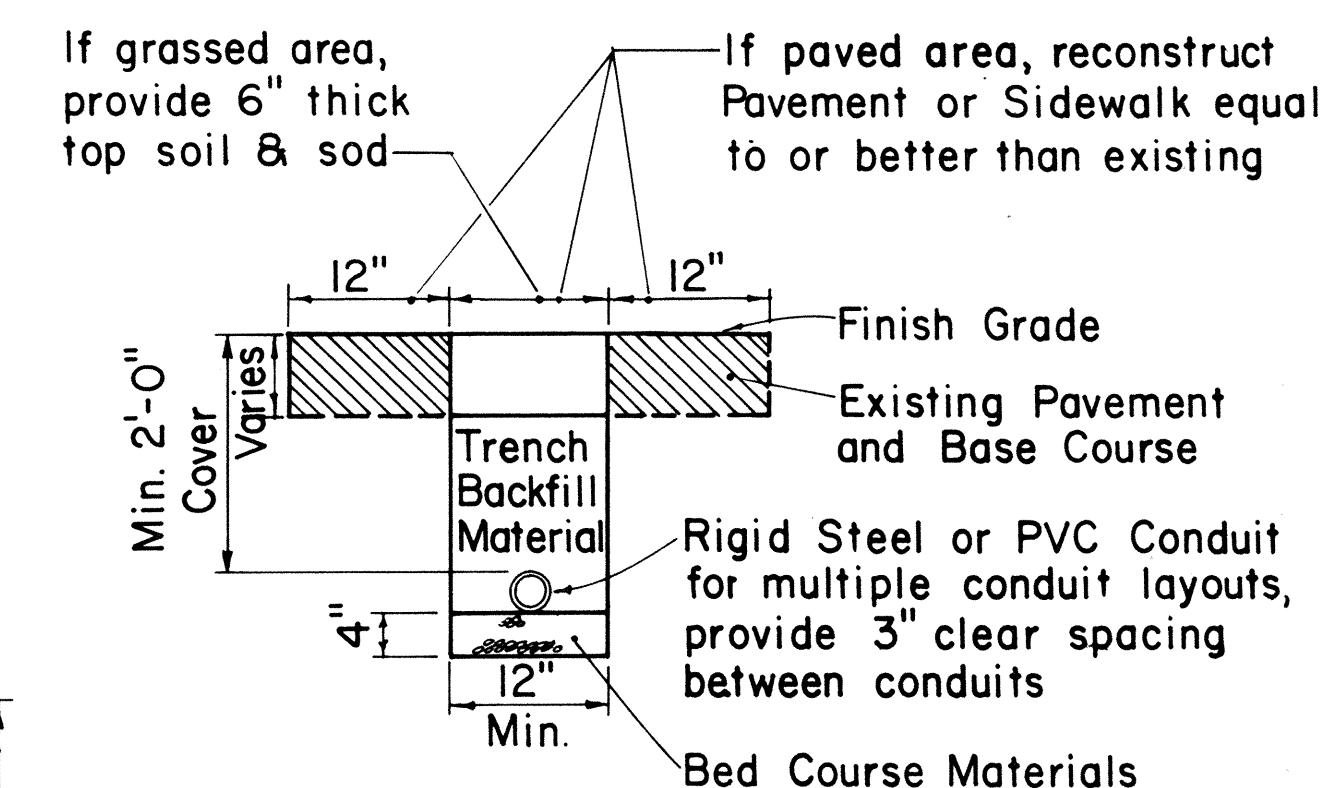
Note: Back-Fill Over-Cuts with Epoxy



DETAIL "B" SAW-CUT AT CORNERS



MULTIPLE LOOP LAYOUT



TYPICAL TRENCH SECTION FOR CONDUIT

NOTE:

- All conduits under roadways shall be steel or PVC schedule 80. All other conduits shall be steel or PVC schedule 40.

APPROVAL RECOMMENDED:

Erich Tanaka 9/26/80
TRAFFIC ENGINEER DATE

APPROVED:

Hubert Zafraishi 9/30/80
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Replaces Sht. DT 405 dated 3/5/76	H.T.	9/30/80
2	Revised Section A-A	H.T.	5/15/81

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

LOOP DETECTORS

Not to Scale

SHEET No. 13 OF 13 SHEETS DT 405

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