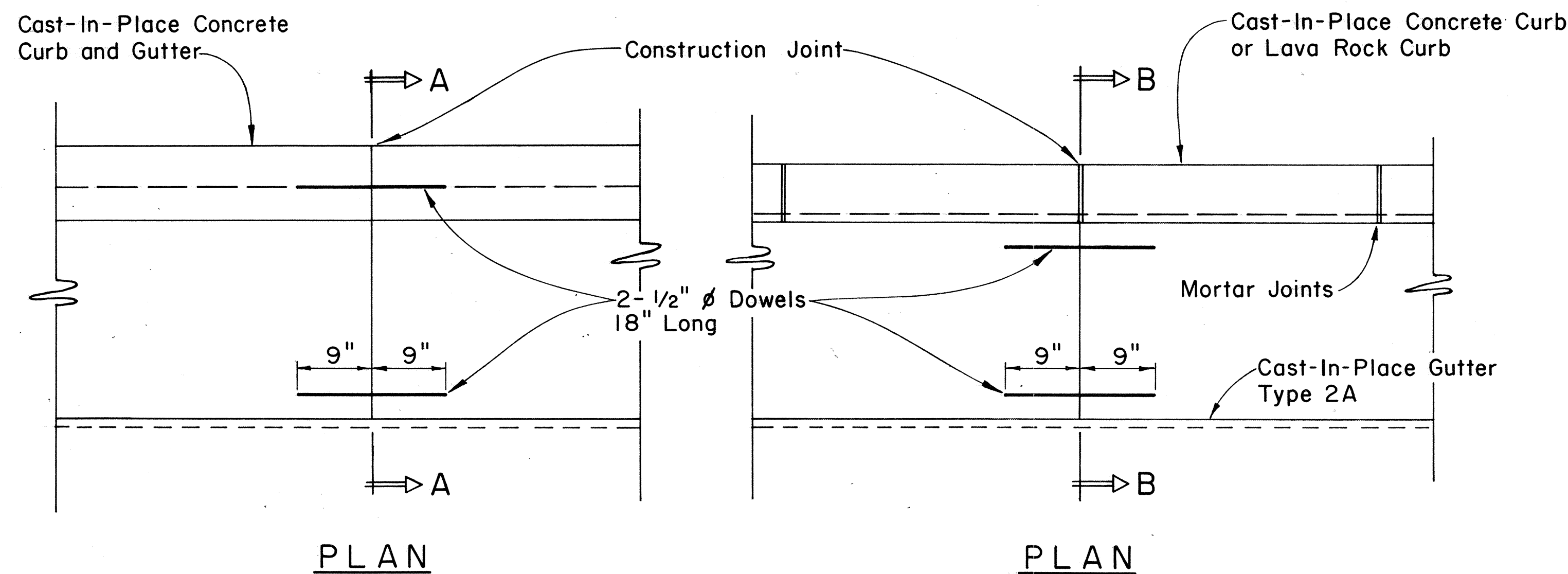
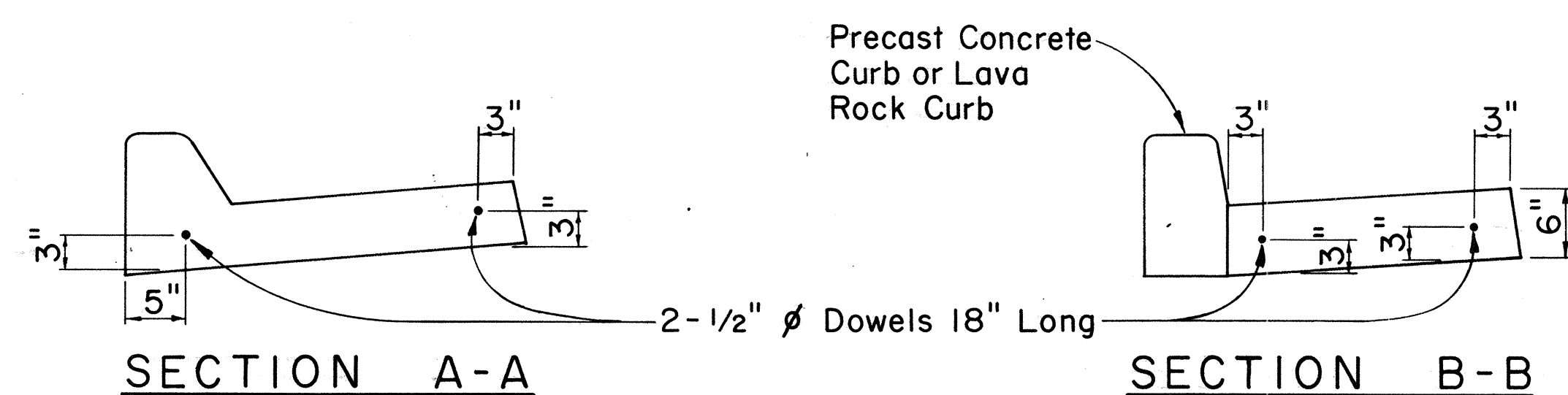
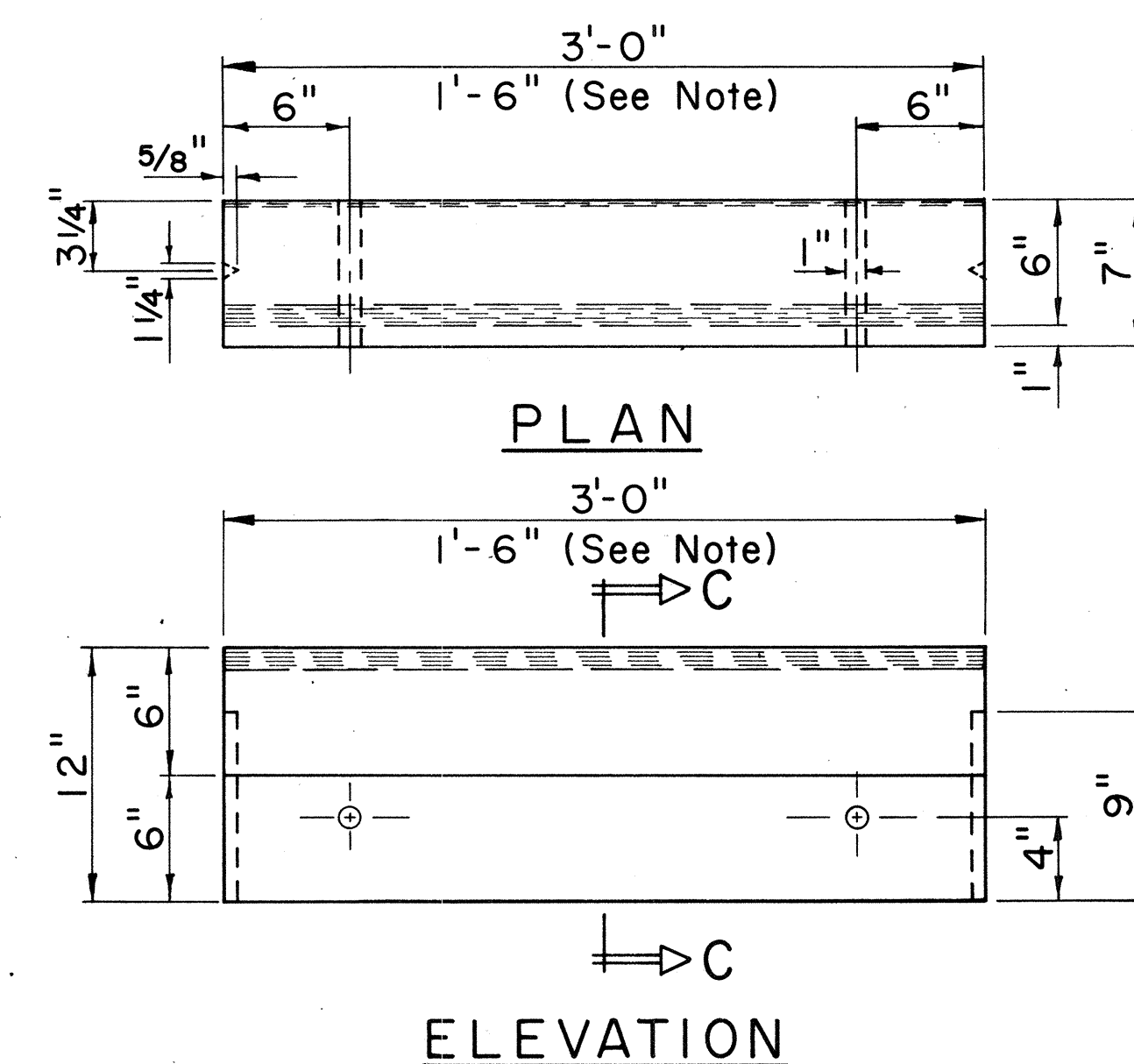


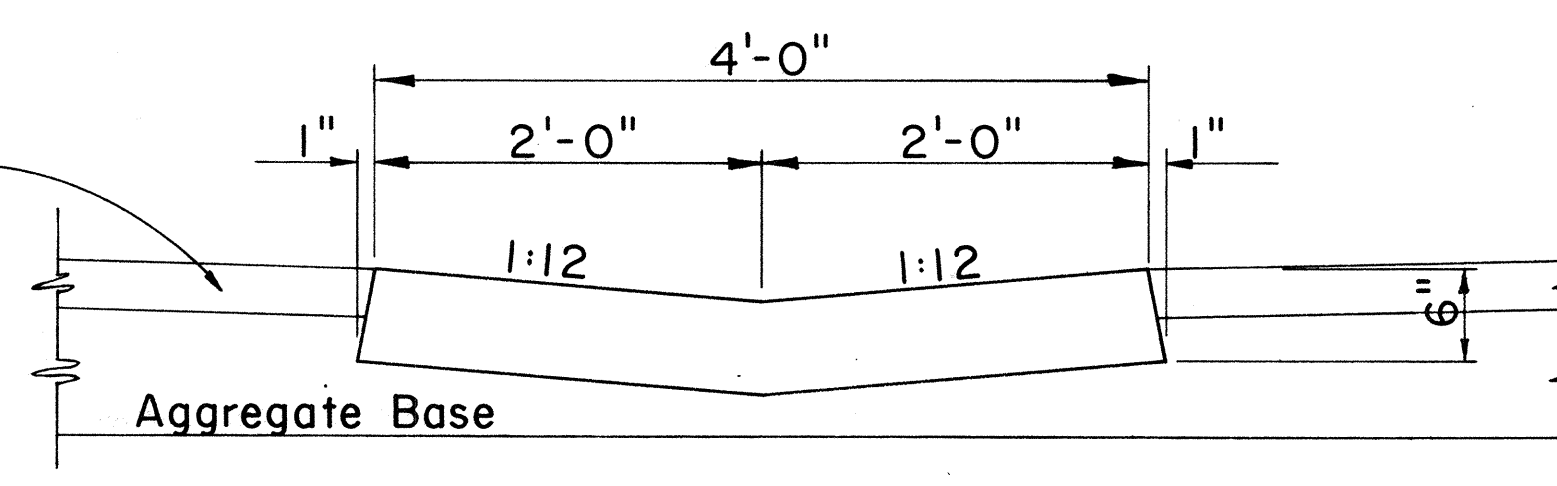
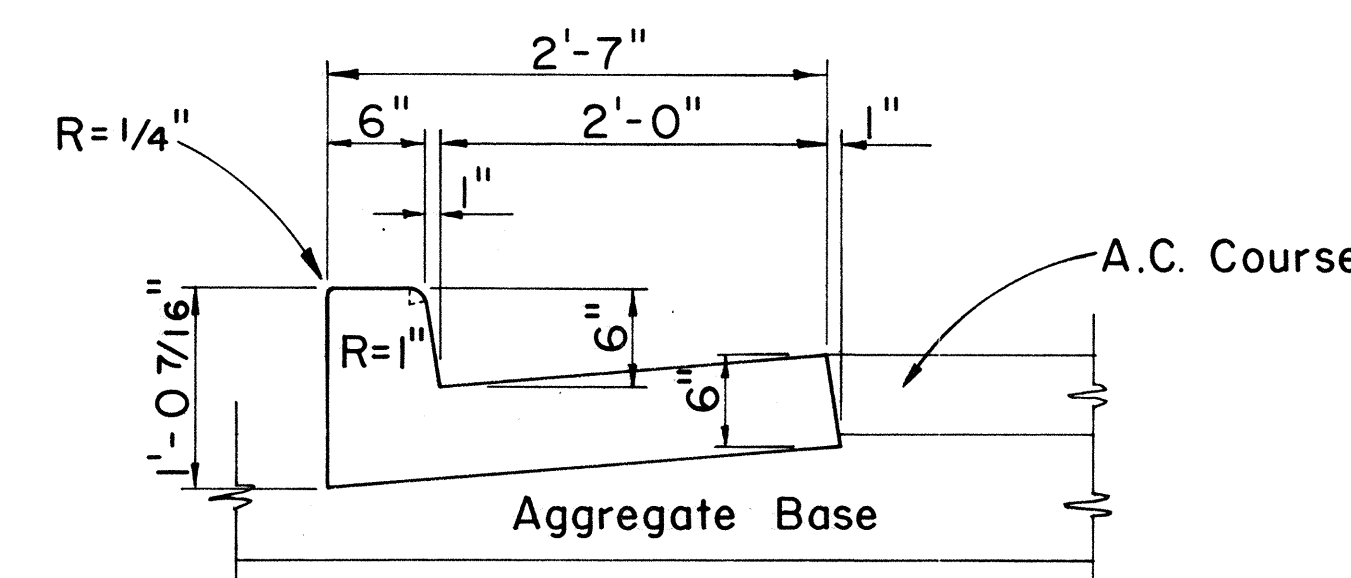
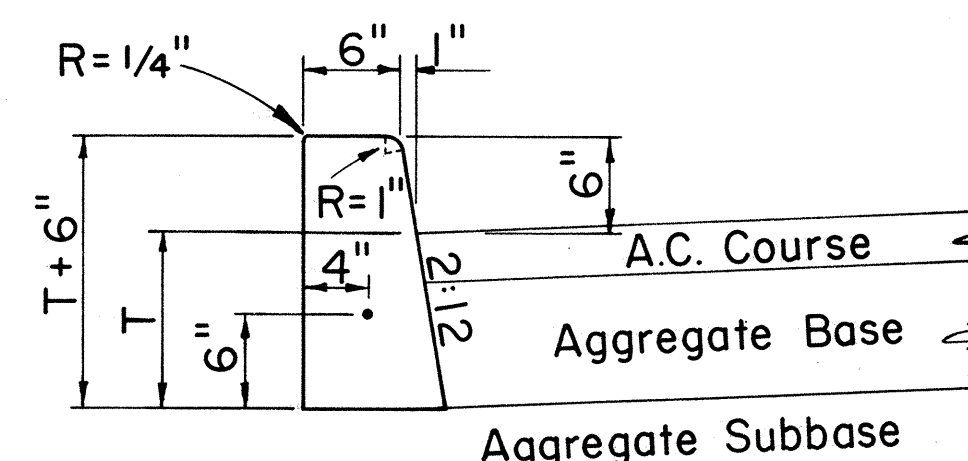
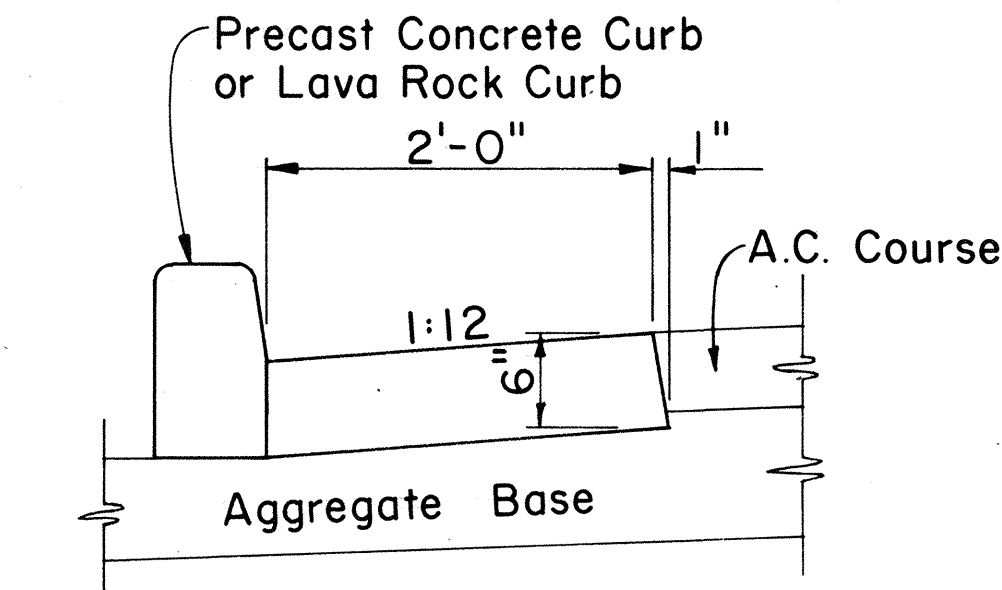
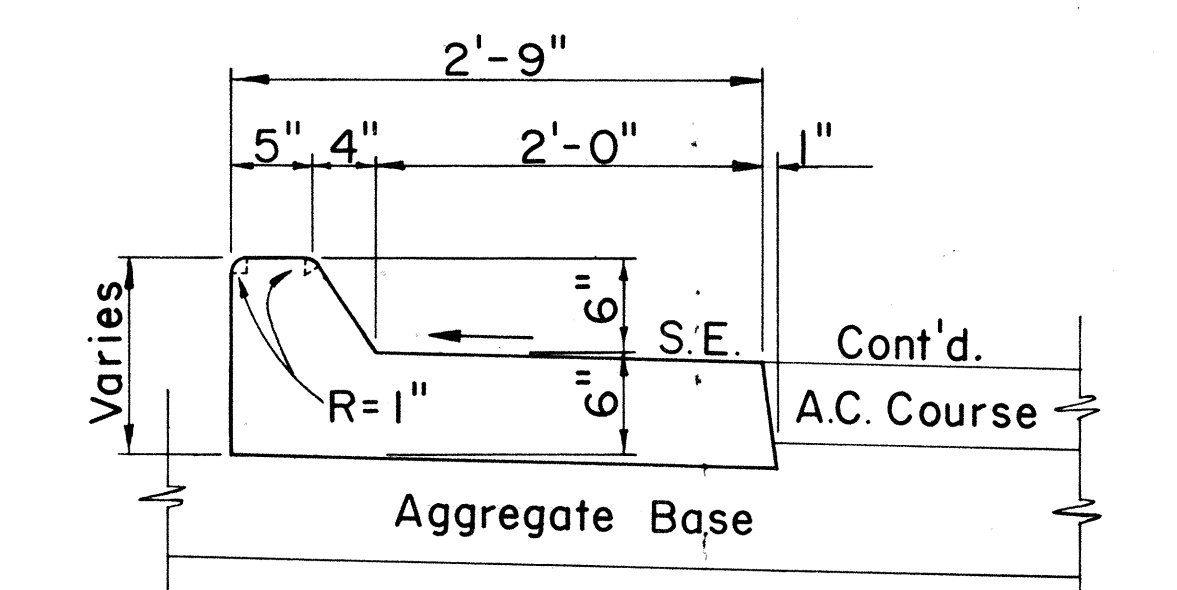
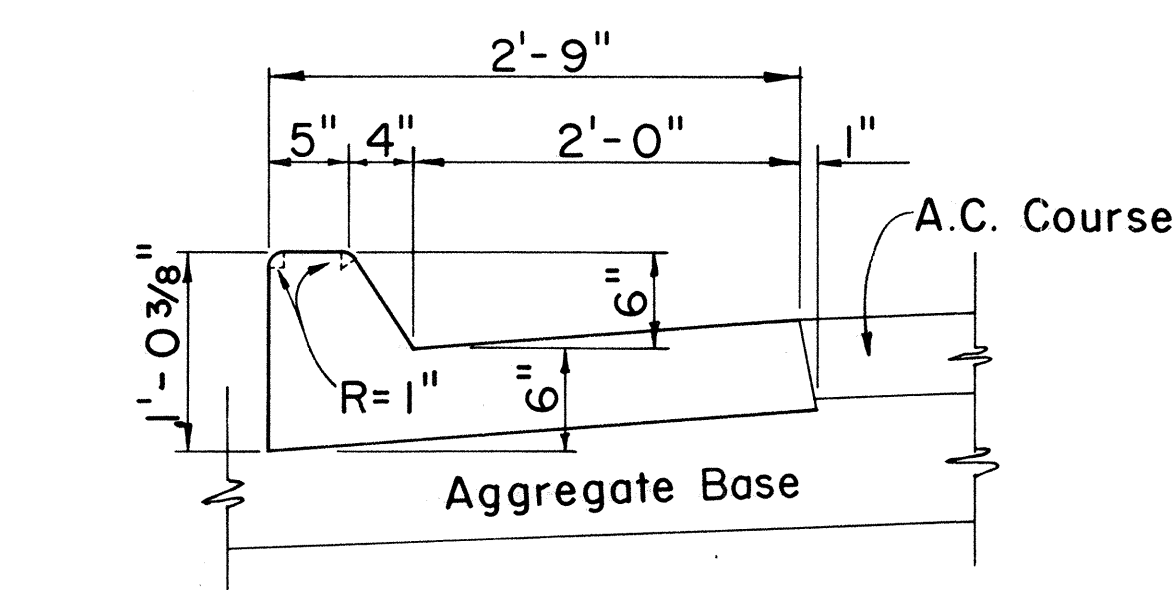
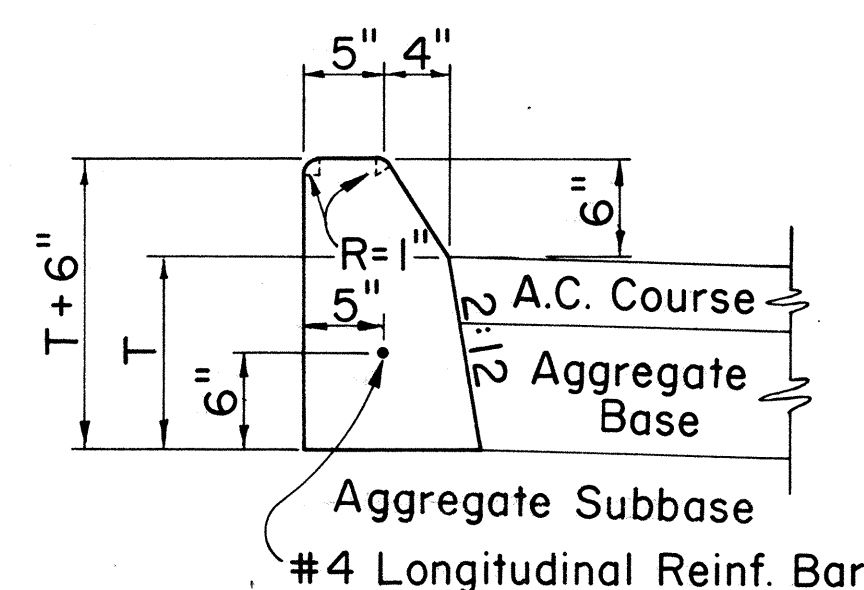
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	9000A-01-B	1981	8	20



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



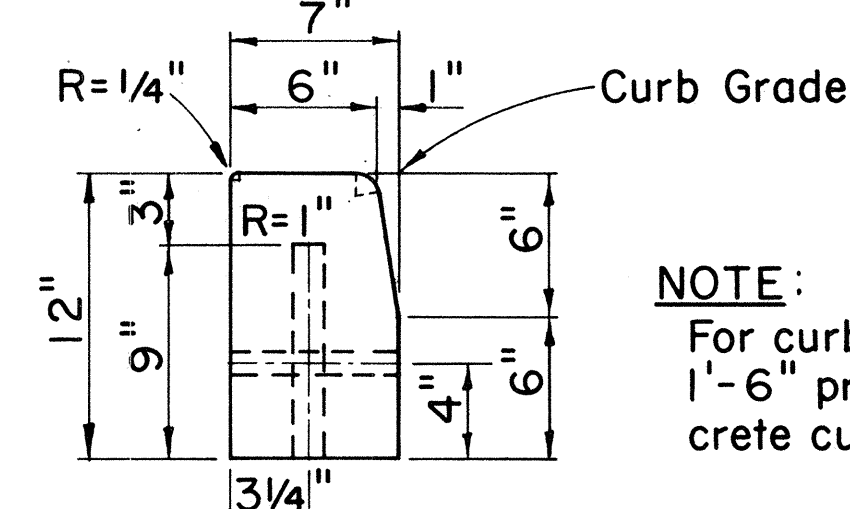
CAST-IN-PLACE CURB & GUTTER
CAST-IN-PLACE GUTTER
CONSTRUCTION JOINT DETAIL
 Scale: 1" = 1'-0"



CURB, TYPE 2D
CURB & GUTTER, TYPE 2DG
GUTTER, TYPE 2G

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

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



NOTE:
 For curb returns use
 1'-6" pre-cast con-
 crete curbs.

APPROVAL RECOMMENDED:
 HIGHWAY DESIGN ENGINEER 12-4-69 DATE

APPROVED:
 ASSISTANT CHIEF, ENGINEERING 12-10-59 DATE

NO.	REVISION	APPROVED BY	DATE

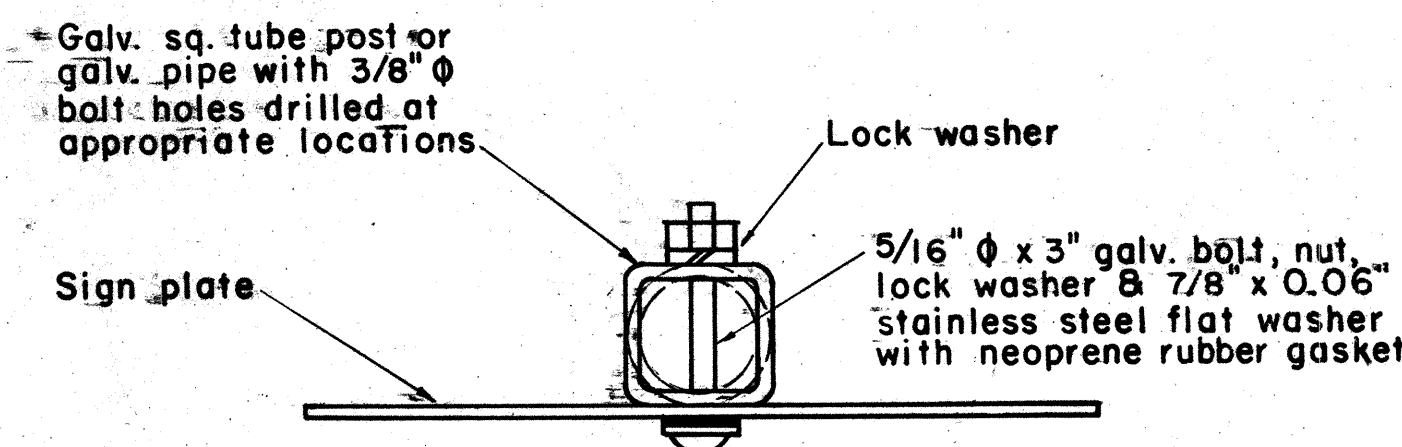
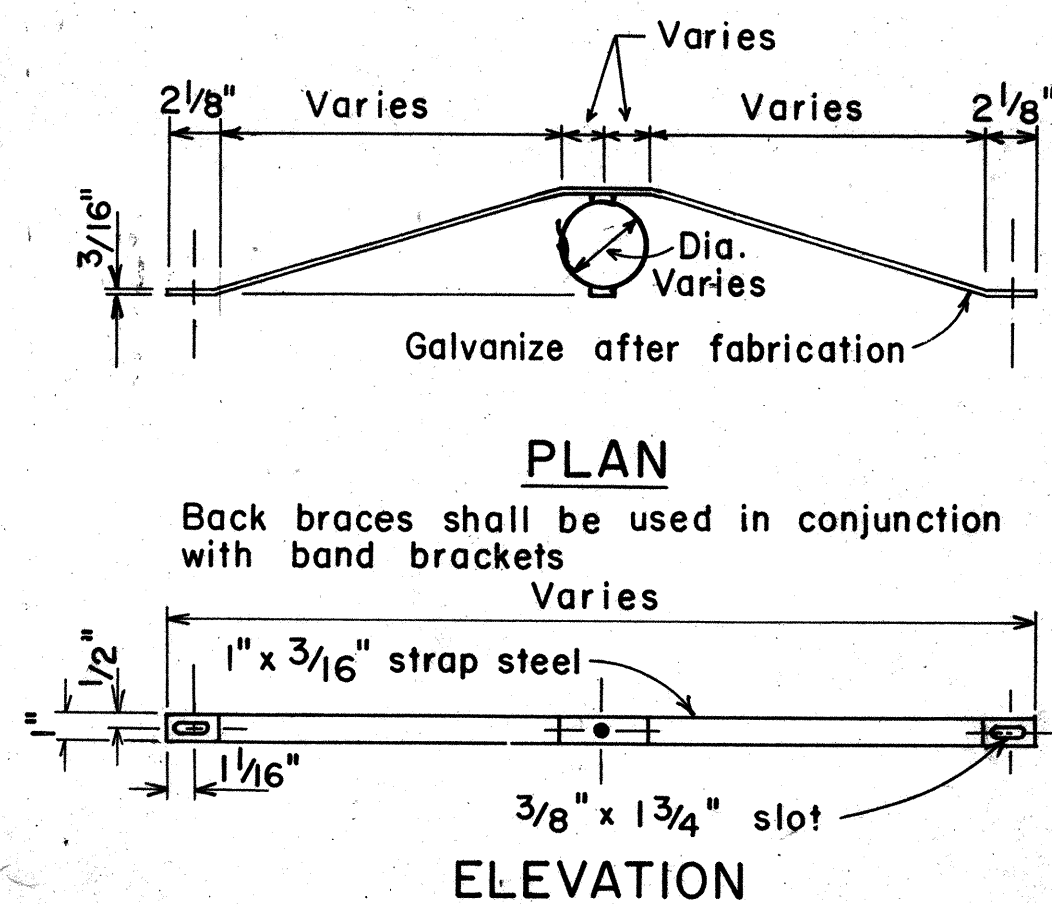
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STANDARD DETAILS
TYPICAL DETAILS OF CURB
AND/OR GUTTERS
 Scale: As Shown
 SHEET No. 1 OF 13 SHEETS DD 609.1

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	2000A-01-81	1981	9	20

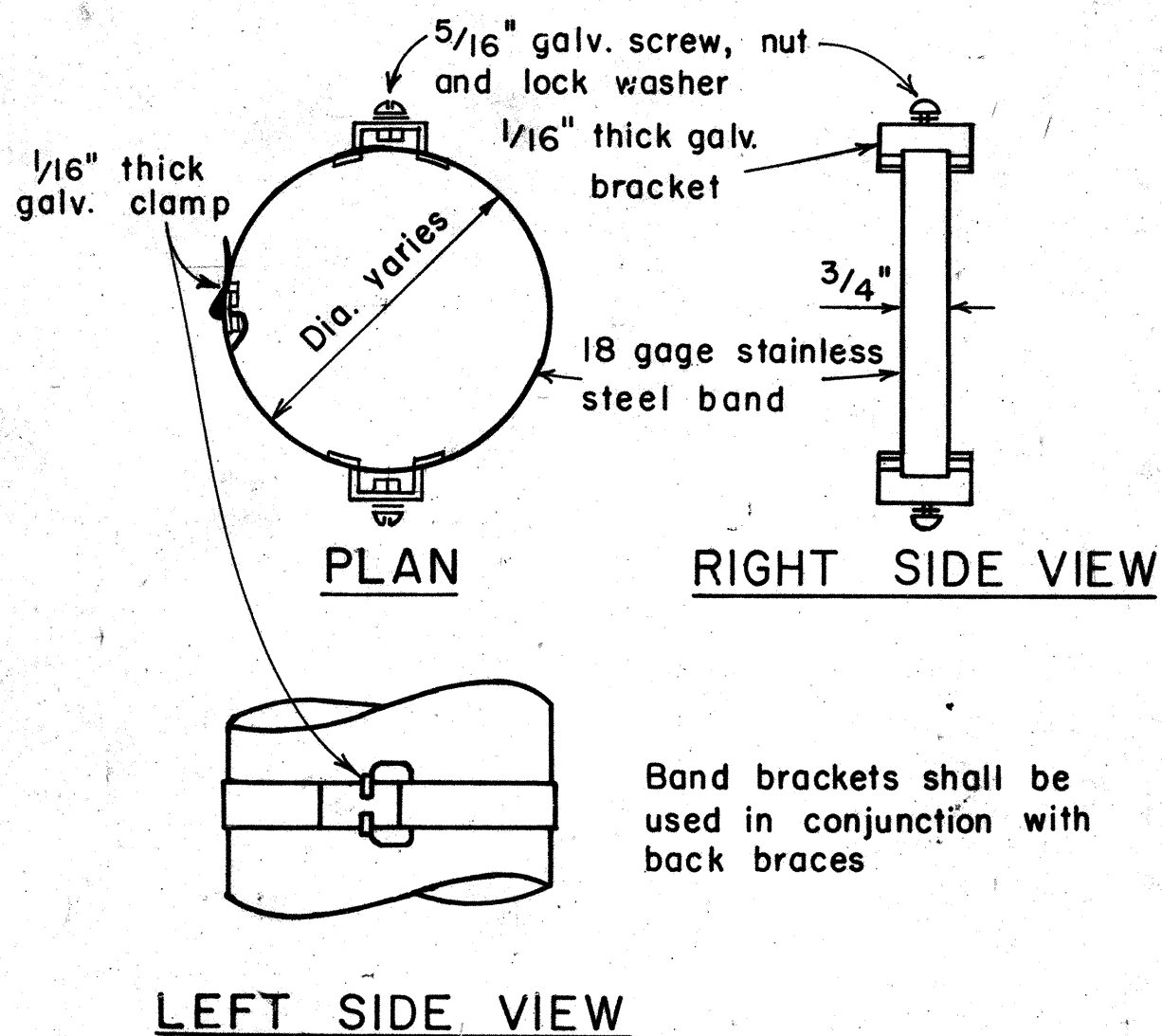
GENERAL NOTES

- Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two sign posts.
- All signs larger than 10 sq. ft. in area or 48" inches and wider, and mounted on other than two posts supports (i.e., on highway lighting poles) shall have at least two sets of band brackets and back braces.
- All signs 28 sq. ft. in area or larger and mounted on other than two posts supports (i.e., on highway lighting poles) shall have at least 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 sign where required for City and County street name signs.
- (R) or (L) indicates right or left and shall be as shown on the plans.
- See plans for special details.
- When clear roadside recovery areas are provided, Signs shall be placed as far from the edge of traveled way as possible up to a maximum of 30 feet. When possible they shall be placed in protected locations.
- 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



GALVANIZED SQUARE TUBE POST (OR GALVANIZED PIPE)



BAND BRACKET

TYPICAL MOUNTING DETAILS

NOT TO SCALE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT-100 approved 12/30/69	H.T.	11/15/77
2	Revised depth of signpost	H.T.	5/31/79
3	Added Notes No. 8 & No. 9	H.T.	5/18/79
4	Revised Gen. Note #4 & Mounting Details	H.T.	4/23/80

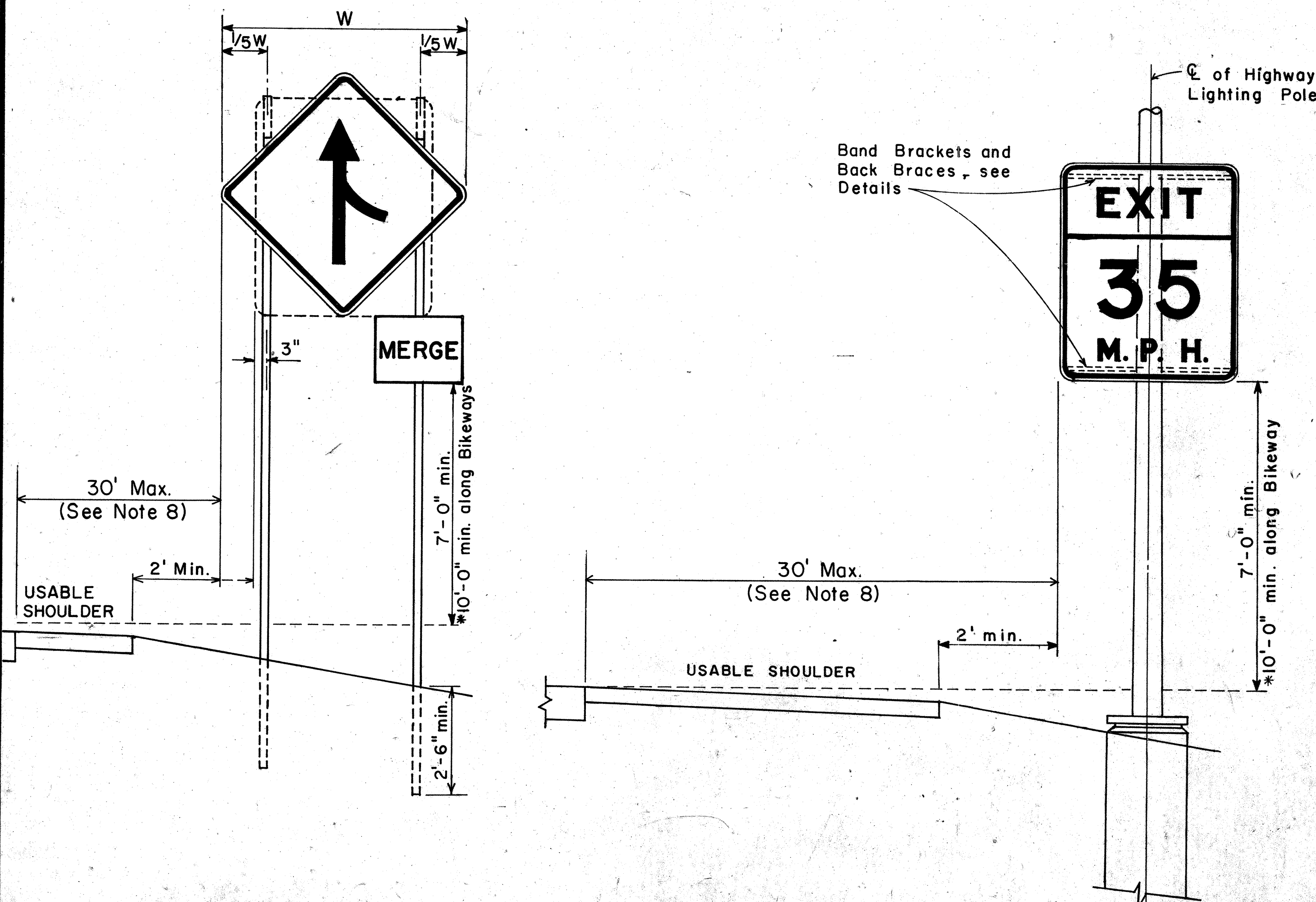
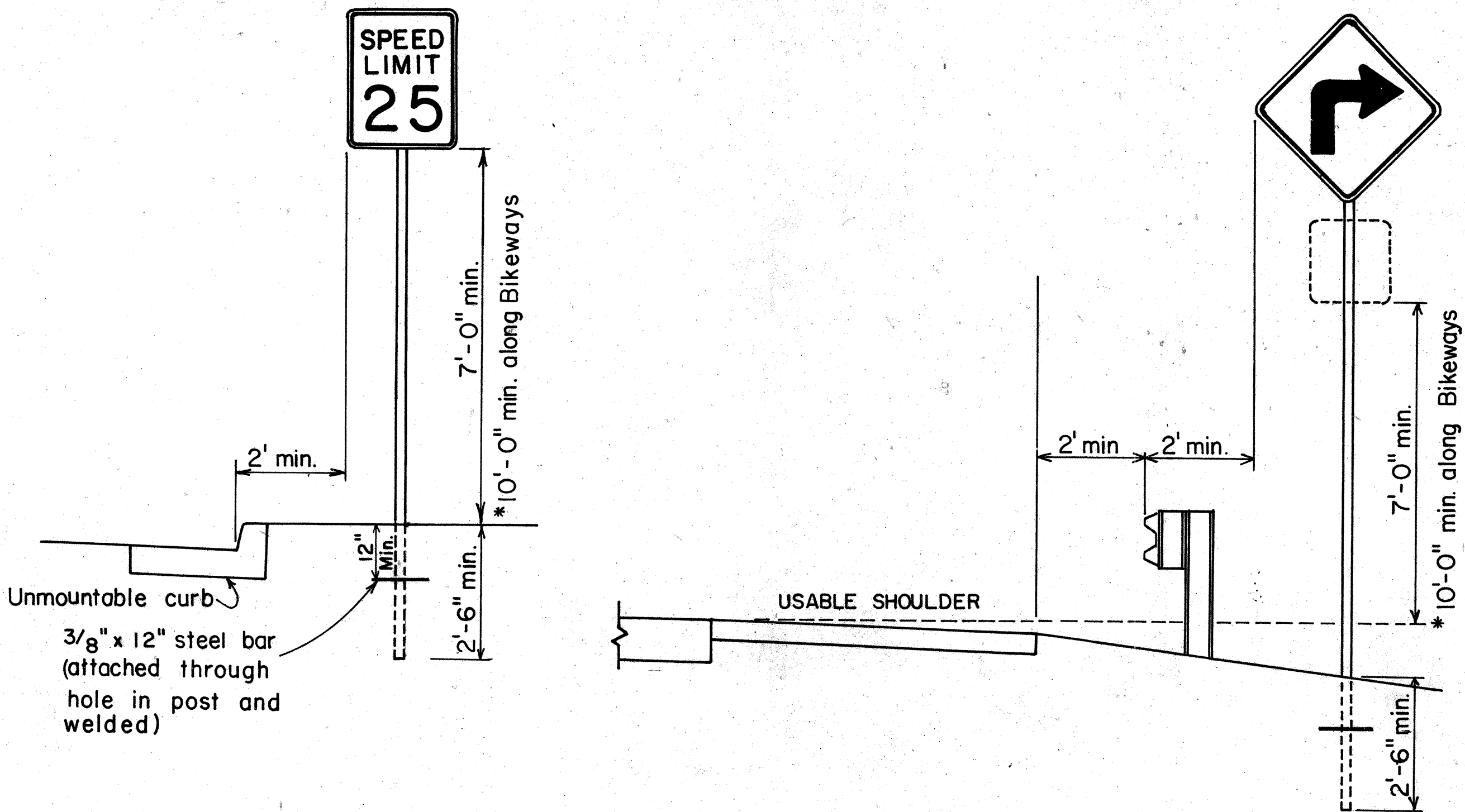
APPROVAL RECOMMENDED:
Erich Tanaka
 TRAFFIC ENGINEER
 11/10/77
 DATE

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS SIGN DETAILS

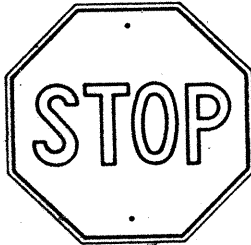
Not to scale
June, 1977
SHEET No. 2 OF 13 SHEETS DT 100



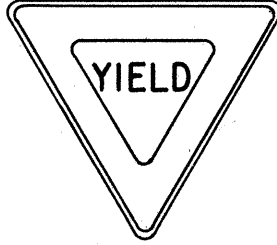
HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATION

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

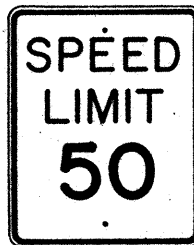
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	2000A-01-81	1981	10	20



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"



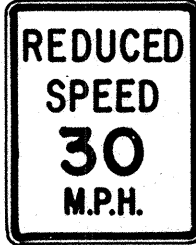
R2-1(50) 24"x 30"
R2-1(50)-A 48"x 60"



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"



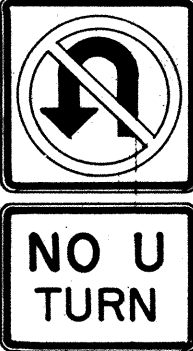
R3-1 24"x24"
24"x18"
R3-1-A 48"x48"
48"x36"



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



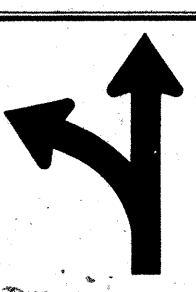
R3-3 24"x 24"
R3-3-A 48"x 48"



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



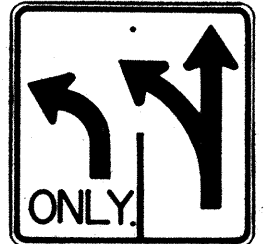
R3-5(L) 30"x 36"
R3-5(L)-A 48"x 60"



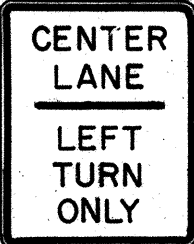
R3-6(L) 30"x 36"
R3-6(L)-A 48"x 60"



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"



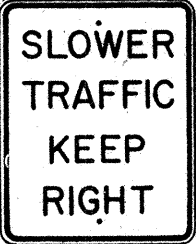
R3-9 24"x 30"



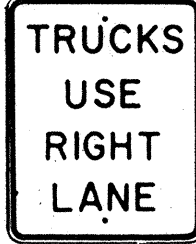
R4-1 24"x 30"



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"



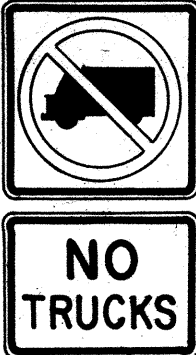
R4-7 24"x30"
24"x18"



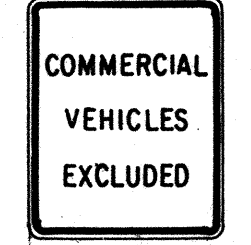
R4-8 24"x30"
24"x18"



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



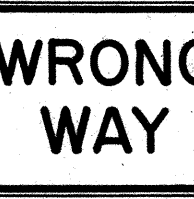
R5-2 24"x 24"
24"x 18"



R5-4 24"x 30"



R5-6 24"x24"
24"x18"



R5-9 36"x 24"



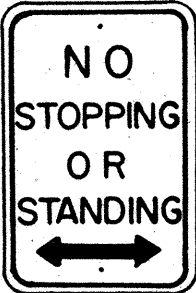
R6-1 (R) 36"x12"



R6-2(R) 18"x24"



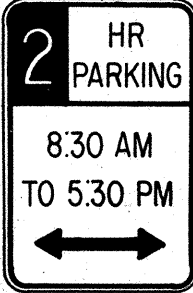
R7-1 12"x 18"
R7-1-A 24"x 30"



R7-4 12"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"x12"



R8-1 24"x 30"



R8-2 24"x 30"



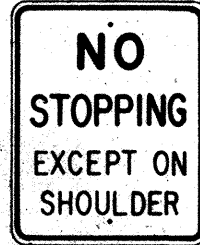
R8-3 24"x 30"



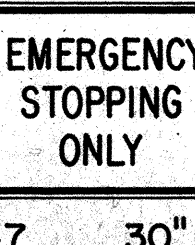
R8-4 30"x 24"
R8-4-A 48"x 36"



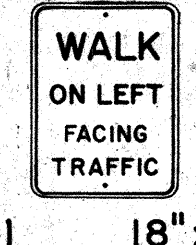
R8-5 24"x 30"



R8-6 24"x 30"



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



R9-1 18"x 24"



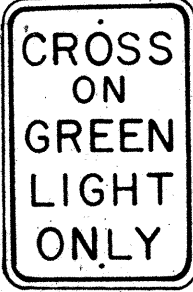
R9-2 12"x 18"



R9-3 12"x 18"



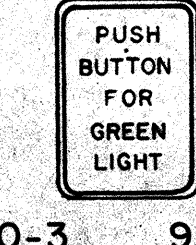
R9-4 18"x 24"



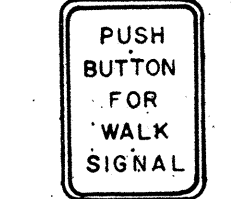
R10-1 12"x 18"



R10-2 12"x 18"



R10-3 9"x 12"



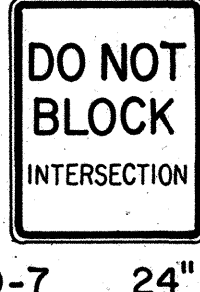
R10-4 9"x 12"



R10-5 24"x 30"



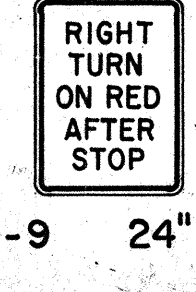
R10-6 24"x 36"



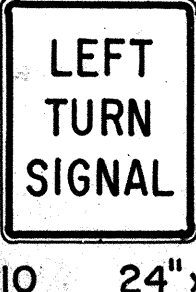
R10-7 24"x 30"



R10-8 24"x 30"



R10-9 24"x 30"



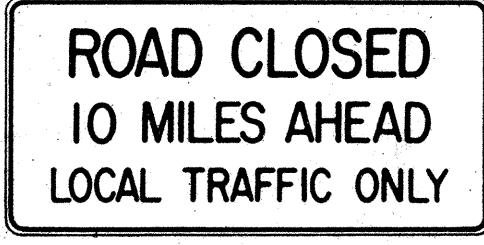
R10-10 24"x 30"



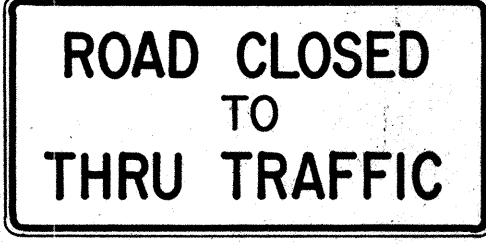
R11-1 24"x 30"



R11-2 48"x 30"



R11-3(10) 60"x 30"



R11-4 60"x 30"



R12-1(10) 24"x 30"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 1972, and as amended.
- All regulatory signs shall be reflectorized unless otherwise specified.
- All regulatory signs shall have 3/8" bolt holes drilled at appropriate locations.
- Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
- All signs shall be erected without educational plaques unless called for in the plans.

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

APPROVED:
Robert Datsis 3-20-72
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H.	3/20/72
2	Revised General Note 1.	H.	10/14/74
3	Added General Note 5	H.	6/9/79

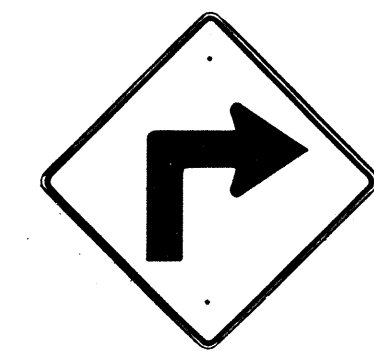
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
REGULATORY SIGNS

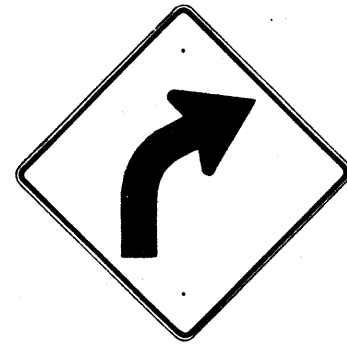
NOT TO SCALE
SHEET No. 3 OF 13 SHEETS DT 101

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

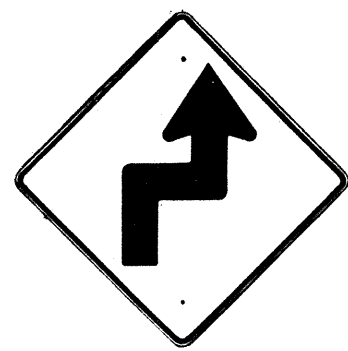
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII *	HAW.	2000A-01-81	1981	11	20



W1-1(R) 30"x 30"
W1-1(R)-A 48"x 48"



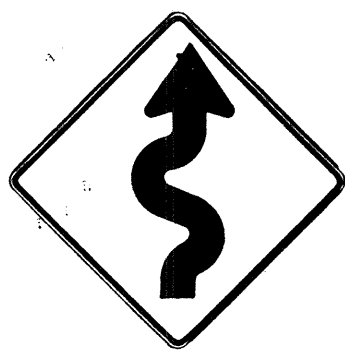
W1-2(R) 30"x 30"
W1-2(R)-A 48"x 48"



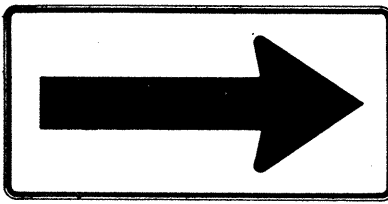
W1-3(R) 30"x 30"
W1-3(R)-A 48"x 48"



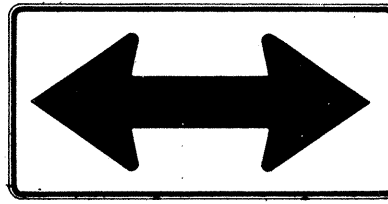
W1-4(R) 30"x 30"
W1-4(R)-A 48"x 48"



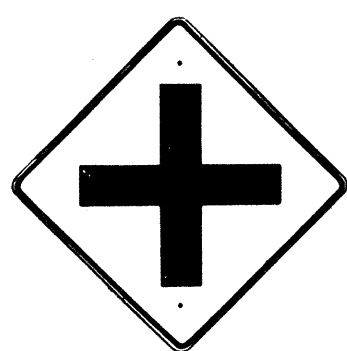
W1-5(R) 30"x 30"
W1-5(R)-A 48"x 48"



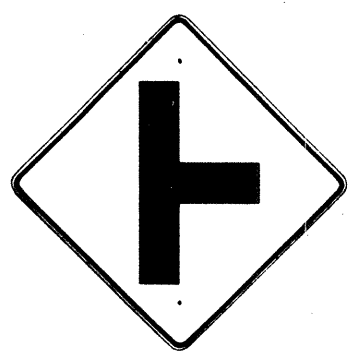
W1-6 48"x 24"



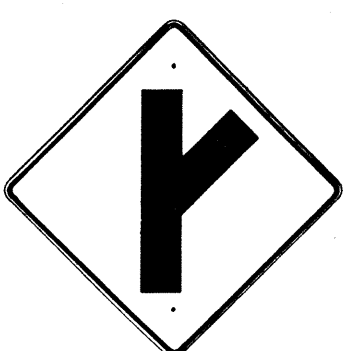
W1-7 48"x 24"



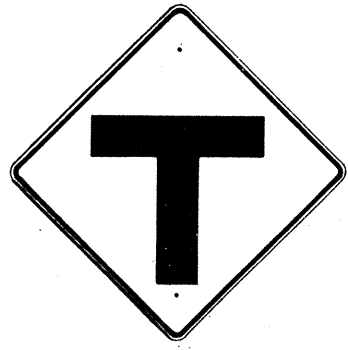
W2-1 30"x 30"
W2-1-A 48"x 48"



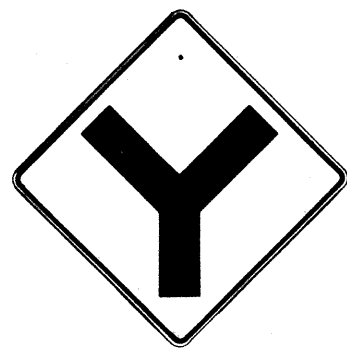
W2-2 30"x 30"
W2-2-A 48"x 48"



W2-3(R) 30"x 30"
W2-3(R)-A 48"x 48"



W2-4 30"x 30"
W2-4-A 48"x 48"



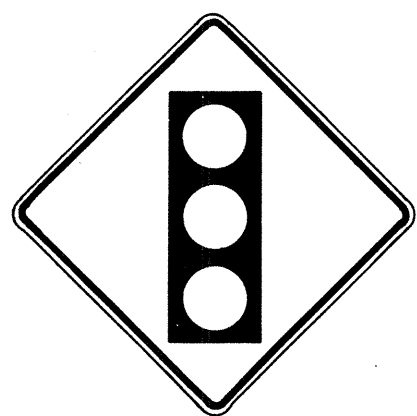
W2-5 30"x 30"
W2-5-A 48"x 48"



W3-1 30"x 30"
W3-1-A 36"x 36"



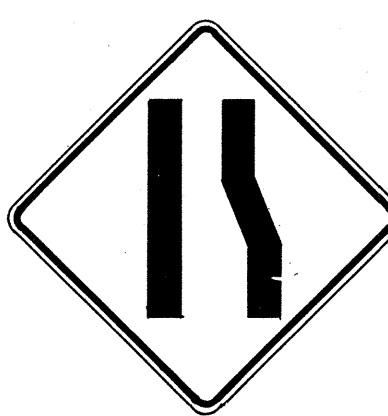
W3-2 30"x 30"
W3-2-A 36"x 36"



SIGNAL AHEAD
W3-3 36"x 36"
24"x 18"



MERGE
W4-1(R) 30"x 30"
24"x 18"
W4-1(R)-A 48"x 48"
24"x 18"



W4-2(R) 36"x 36"
W4-2(R)-A 48"x 48"



W5-1 36"x 36"



W5-2 30"x 30"
W5-2-A 36"x 36"



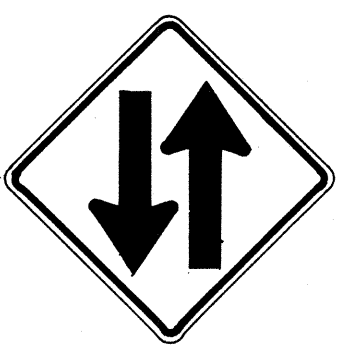
W5-3 36"x 36"



DIVIDED HIGHWAY
W6-1 36"x 36"
24"x 18"



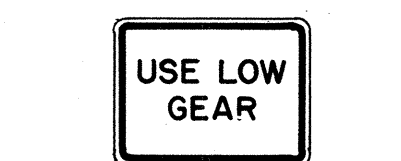
DIVIDED HIGHWAY ENDS
W6-2 36"x 36"
24"x 18"



TWO WAY TRAFFIC
W6-3 30"x 30"
24"x 18"
W6-3-A 36"x 36"
24"x 18"
W6-3-B 48"x 48"
24"x 18"



HILL
W7-1 30"x 30"
24"x 18"
W7-1-A 36"x 36"
24"x 18"



W7-2 24"x 18"



W8-1 30"x 30"
W8-1-A 36"x 36"



W8-2 30"x 30"
W8-2-A 36"x 36"



W8-3 30"x 30"
W8-3-A 36"x 36"



W8-4 30"x 30"
W8-4-A 36"x 36"



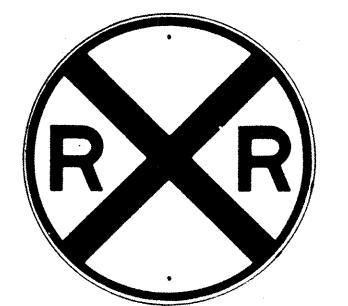
SLIPPERY WHEN WET
W8-5 30"x 30"
24"x 18"
W8-5-A 36"x 36"
24"x 18"



W9-1(R) 30"x 30"
W9-1(R)-A 36"x 36"
W9-1(R)-B 48"x 48"



W9-2(L) 36"x 36"
W9-2(L)-A 48"x 48"



W10-1 36" Diameter



BIKE XING
W11-1 30"x 30"
24"x 18"
W11-1-A 36"x 36"
24"x 18"



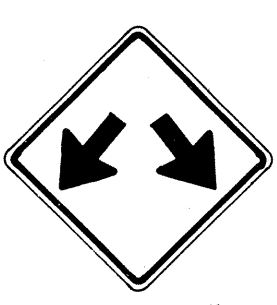
PED XING
W11-2 30"x 30"
24"x 18"
W11-2-A 36"x 36"
24"x 18"



CATTLE XING
W11-4 30"x 30"
24"x 18"
W11-4-A 36"x 36"
24"x 18"



FARM MACHINERY
W11-5 30"x 30"
24"x 18"
W11-5-A 36"x 36"
24"x 18"



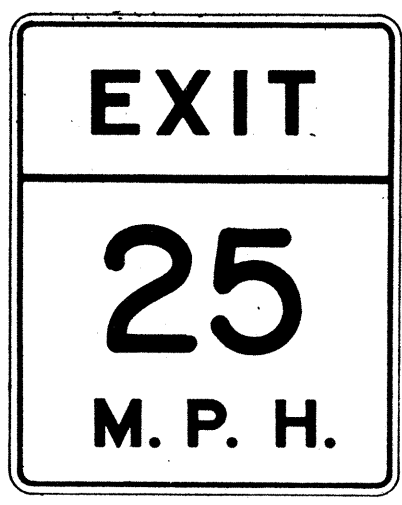
W12-1 24"x 24"
W12-1-A 36"x 36"
W12-1-B 48"x 48"



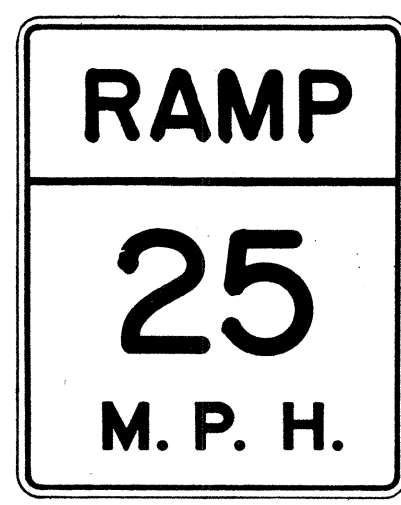
LOW CLEARANCE
W12-2(12'-6") 36"x 36"
24"x 18"



W13-1(25) 18"x 18"
W13-1(25)-A 24"x 24"



W13-2(25) 48"x 60"



W13-3(25) 48"x 60"



W14-1 30"x 30"



W14-3 36"x 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 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:
Enrique Tanaka 3/17/72
TRAFFIC ENGINEER DATE

APPROVED:
Walter Dalsin 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	MT	9-16-75
4	Revised General Note 5	H.T.	9-14-76
5	Added Note 1	H.T.	11-7-79

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS WARNING SIGNS

NOT TO SCALE

SHEET No. 4 OF 13 SHEETS DT 102

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

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NOTED BY	_____
QUANTITIES BY	_____
NO.	_____

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	9000A-01-81	1981	12	20

General Notes

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

ALL WAY
R1-4 18" x 6"

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

SPEED LIMIT
ENFORCED
BY
VASCAR
R2-10 24" x 30"

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

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

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

ANY TIME
R8-3a 24" x 24"
24" x 18"
R8-3a-A 48" x 48"

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

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

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

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

TURN
RIGHT
ANY TIME
WITH
CAUTION
R16-1 24" x 30"

NO
LEFT
TURN
ON
RED
R16-3 18" x 24"

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

UNLICENSED
VEHICLES
BICYCLES, CYCLES
UNDER 5 H.P.,
PEDESTRIANS
KEEP OUT
FREEWAY
R16-5 36" x 42"

TURN
AHEAD
R16-6 24" x 30"

U
TURN
OK
R16-7 24" x 30"

MOTOR-DRIVEN
CYCLES
PROHIBITED
R5-8 30" x 24"

W17-1(L) 60" x 60"

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

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

STOP
AHEAD
WHEN
FLASHING
W3-4 48" x 48"

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

THRU
TRAFFIC
MERGE
LEFT
W9-3(L) 48" x 48"

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

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

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

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

DELAYED
GREEN
W15-1 24" x 24"

ADVANCE
GREEN
W15-2 24" x 24"

END
FREEWAY
1/2 MI
CW16-1($\frac{1}{2}$) 60" x 60"

RIGHT
LANE
EXIT
ONLY
W18-1 48" x 60"

S1-1 36" x 36"

S2-1 36" x 36"

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

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

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

SCHOOL
S4-3 24" x 8"

WHEN
FLASHING
S4-4 24" x 10"

SIDEWALK
CLOSED
CW23-4 48" x 48"

USE
SIDEWALK
R18-1 24" x 18"

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

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

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 103 approved 3/20/72	H.I.	5/3/78
2	Added General Note 6	H.I.	11/9/79

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

STANDARD DETAILS

MISCELLANEOUS SIGNS

NOT TO SCALE

DATE: MAY, 1978

SHEET No. 5 OF 13 SHEETS DT 103

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	2000A-01-81	1981	13	20



CW20-1a 48" x 48"



CW20-2d 48" x 48"



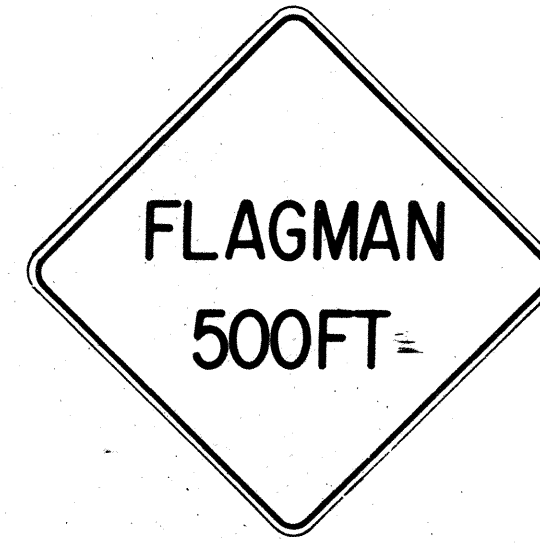
CW20-3b 48" x 48"



CW20-4d 48" x 48"



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



CW20-7c 48" x 48"



CW21-1 30" x 30"



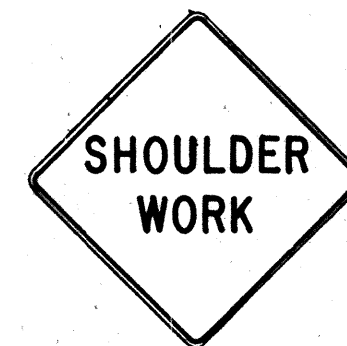
CW21-2 30" x 30"



CW21-3 36" x 36"



CW21-4 36" x 36"



CW21-5 30" x 30"



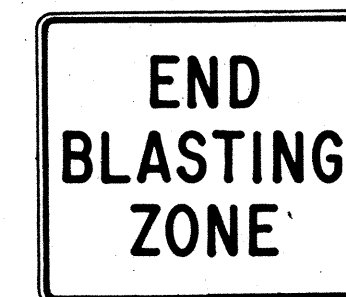
CW21-6 30" x 30"



CW22-1b 48" x 48"



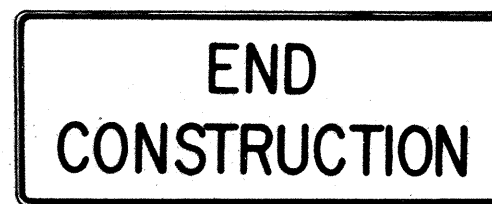
CW22-2 42" x 36"



CW22-3 42" x 36"



CG20-1(5) 60" x 36"



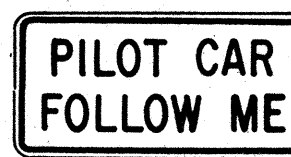
CG20-2 60" x 24"



CM4-9(R) 30" x 24"



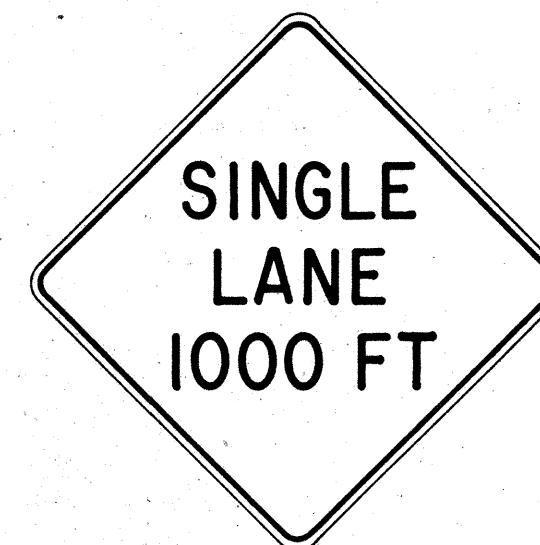
CM4-10(R) 48" x 18"



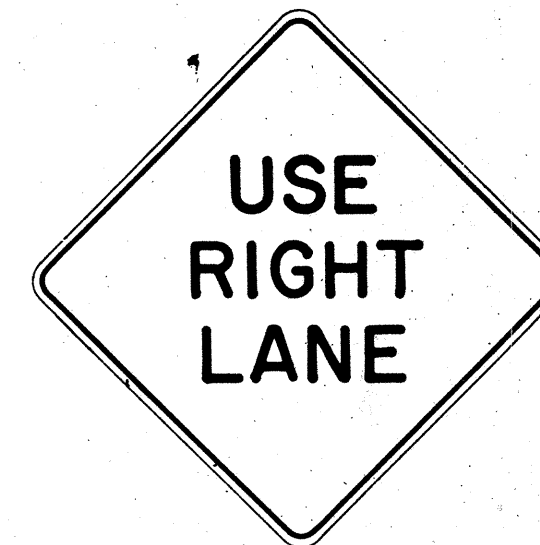
CG20-4 36" x 18"



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 3/8" bolt holes drilled at appropriate locations.
- Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
- For "CW" series signs, suffixes a,b,c and d are as follows:
a-1500 FT, b-1000 FT,
c-500 FT and d-AHEAD.

APPROVAL RECOMMENDED:
Erich Tanaka 3/21/12
TRAFFIC ENGINEER DATE

APPROVED:
Shirley Salsich 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.	10/16/14
3	Revised General Note 2	H.T.	9-16-15
4	Revised General Note 2 and sign CG20-1(5)	H.T.	9-14-16

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS CONSTRUCTION SIGNS

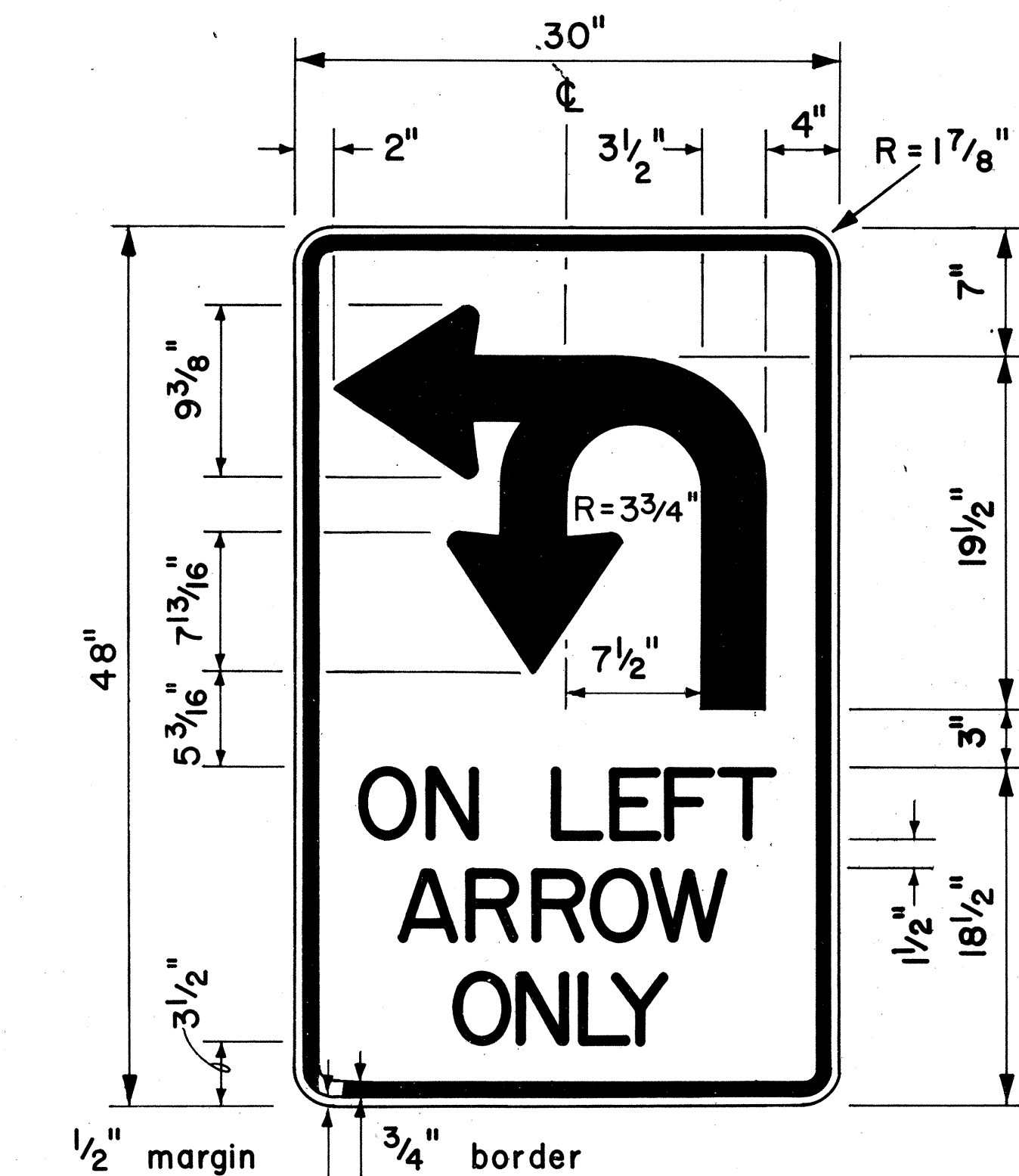
NOT TO SCALE

SHEET No. 6 OF 13 SHEETS DT 104

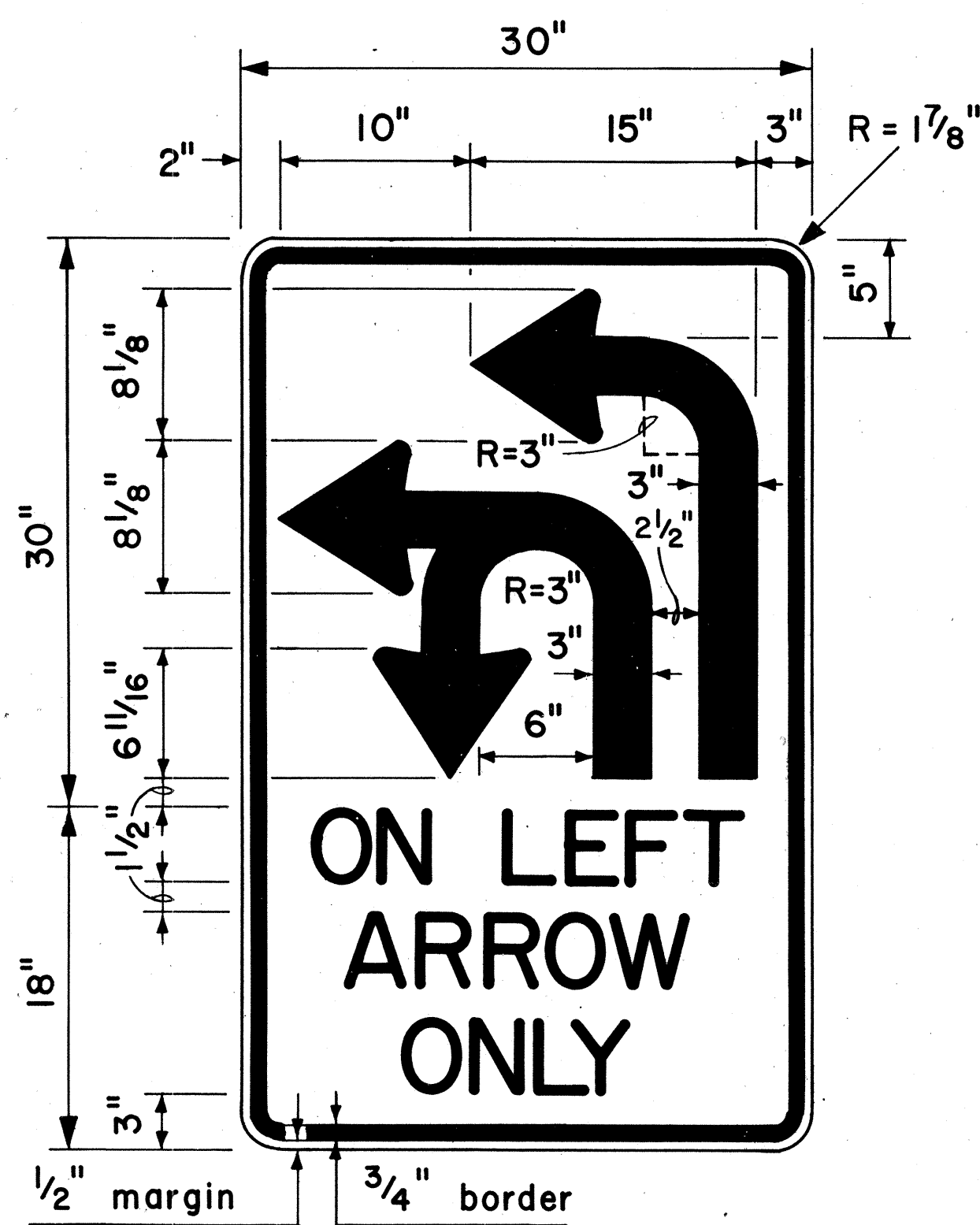
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	9000A-01-81	1981	14	20

GENERAL NOTES

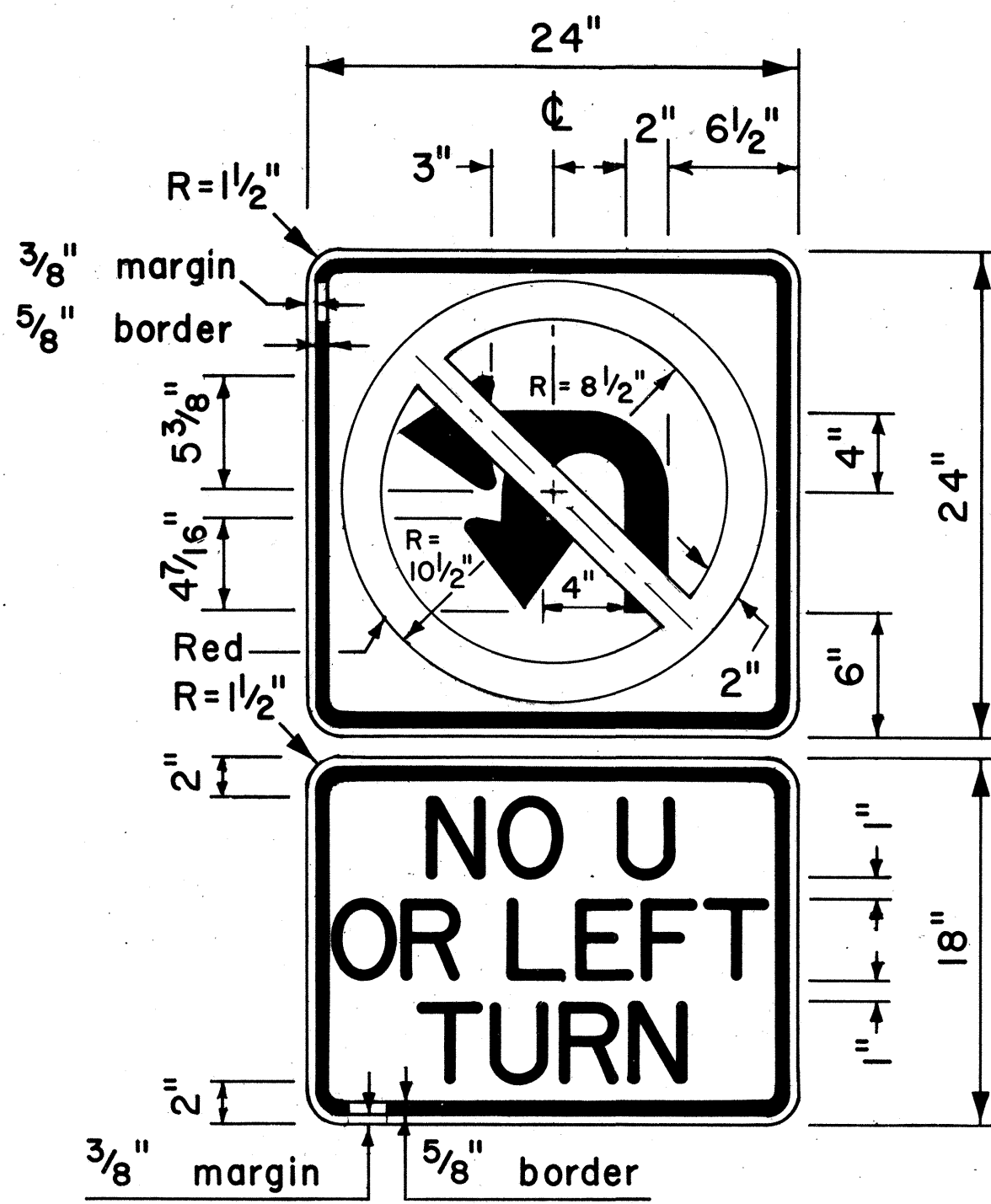
1. Sign details shall conform to the latest editions of the following FHWA publications: "Manual on Uniform Traffic Control Devices for Streets and Highways," and "Standard Highway Signs," and as amended.
2. All regulatory signs shall be reflectorized unless otherwise specified.
3. All regulatory signs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



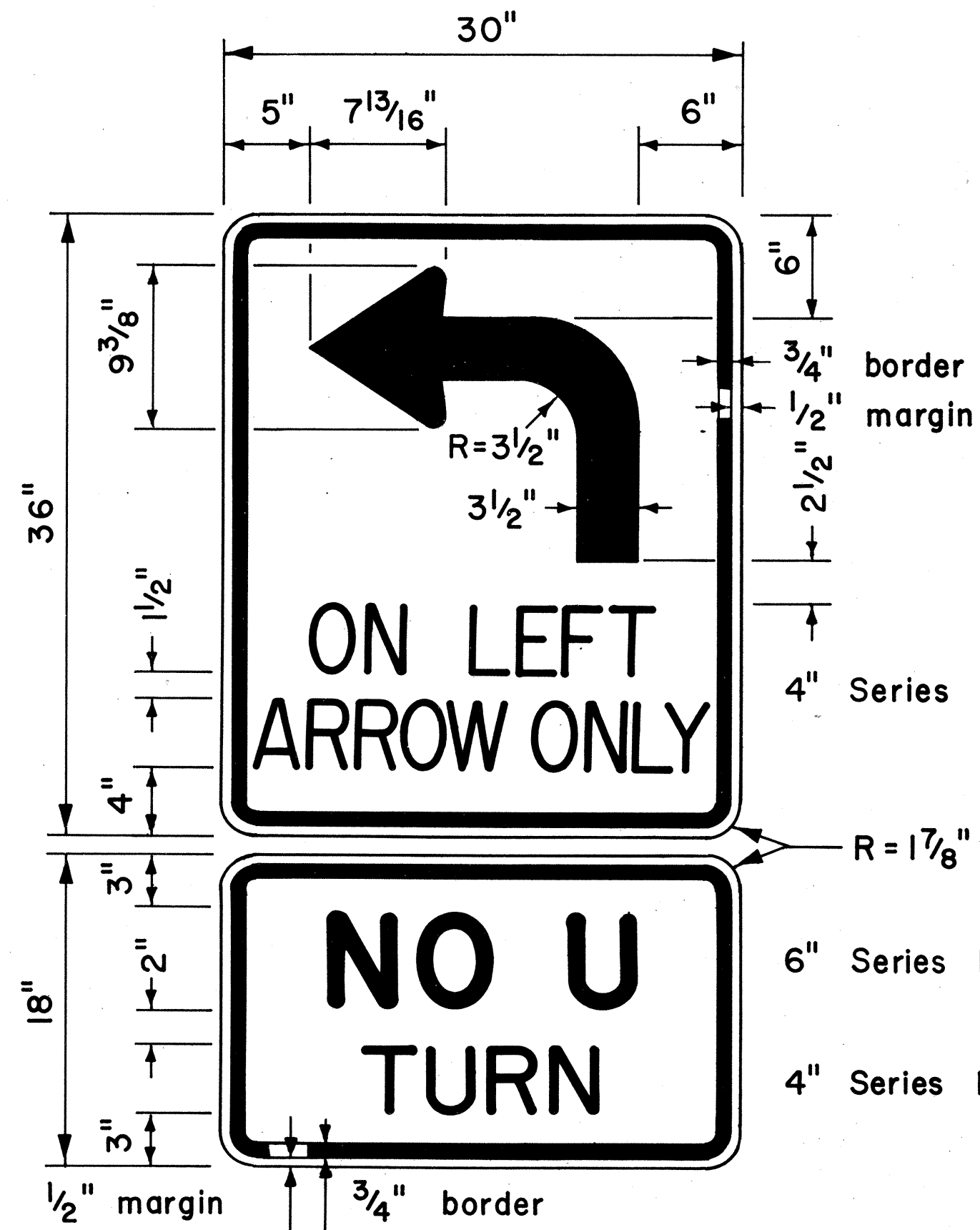
4" Series D Letters
R17-1



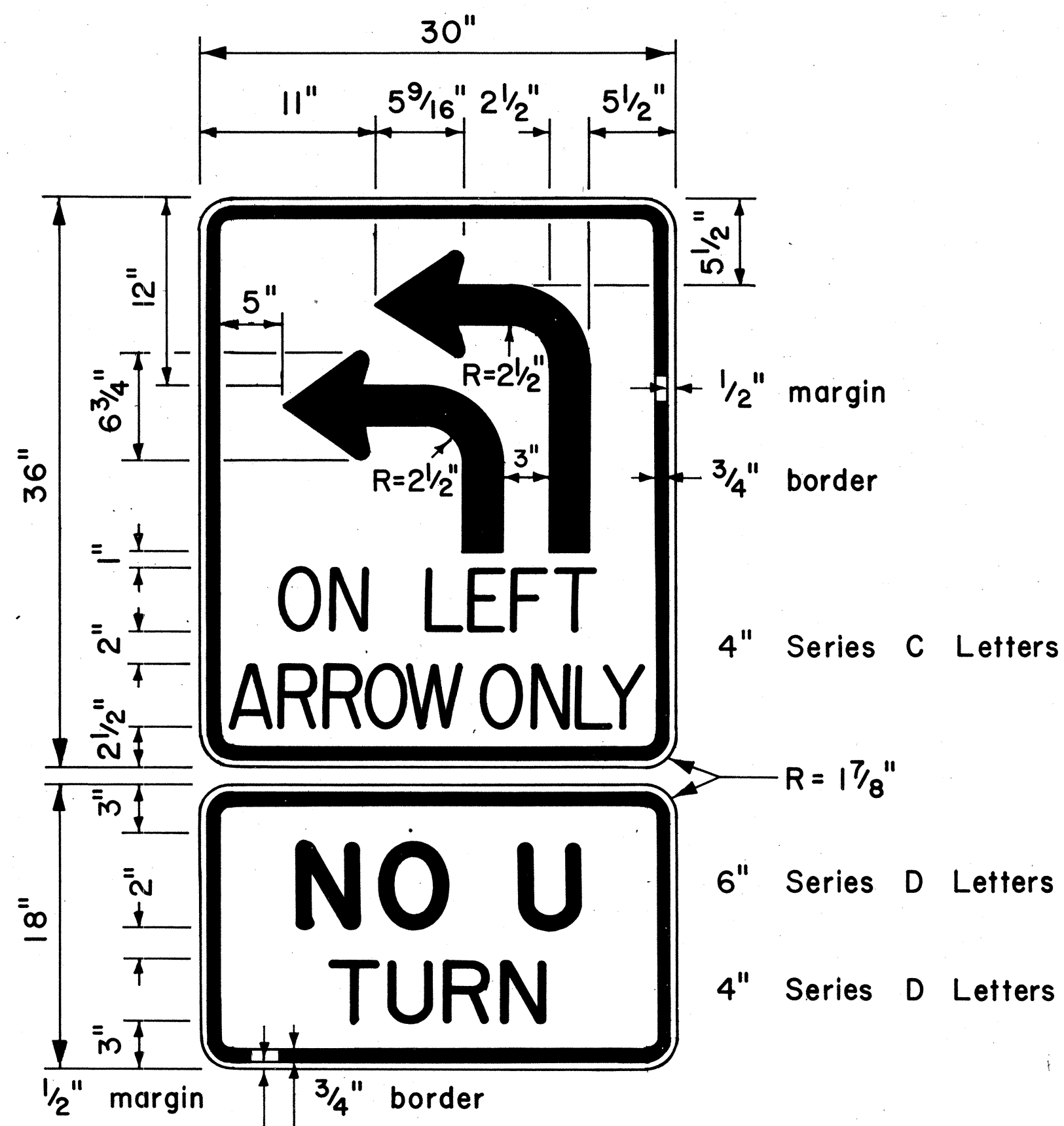
4" Series D Letters
R17-2



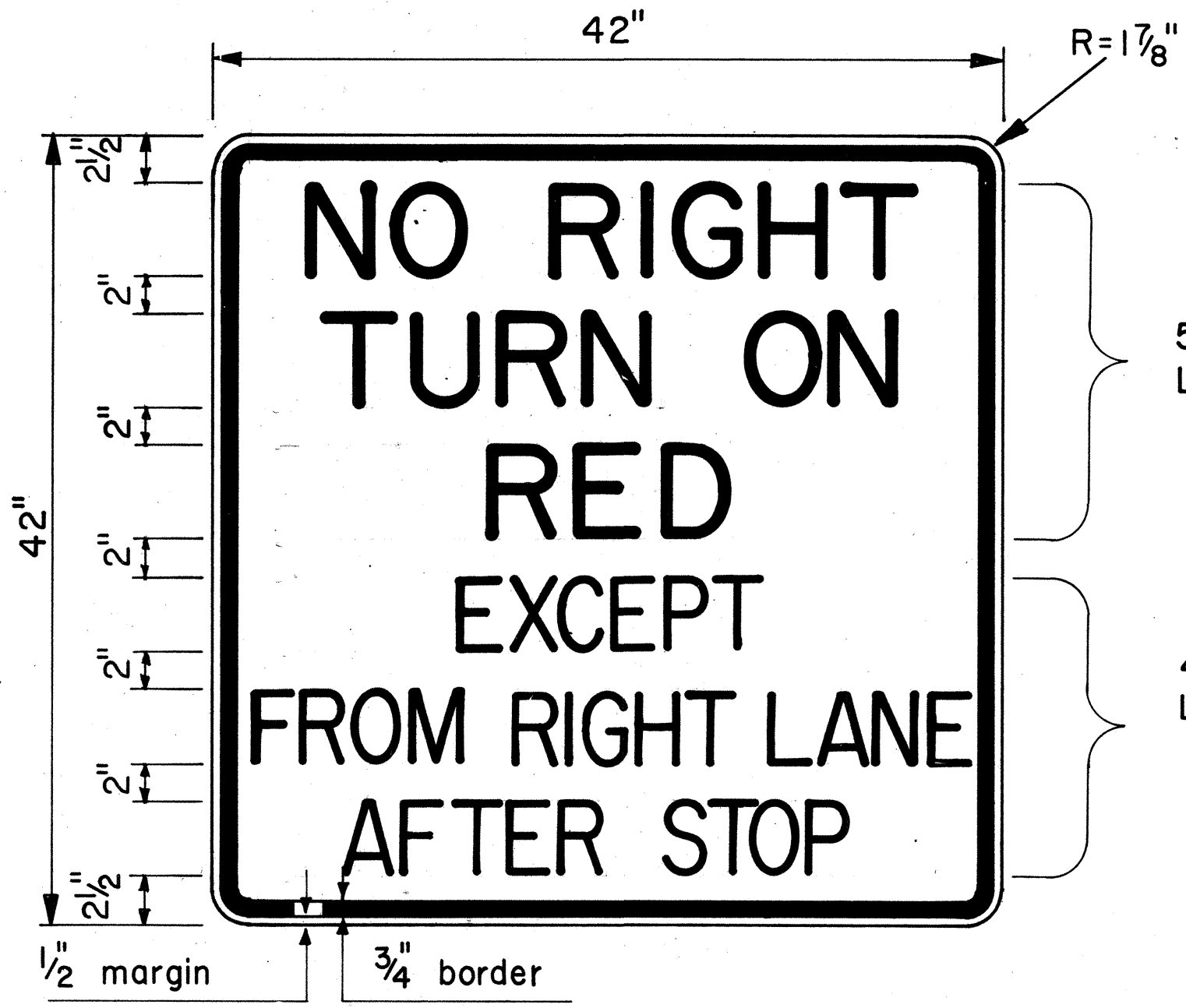
4" Series D Letters
R3-4b



R17-3



R17-4



R10-11d

APPROVAL RECOMMENDED:
Eishi Tanaka 8/1/77
TRAFFIC ENGINEER DATE

APPROVED:
Harbor Sakai 8/16/77
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

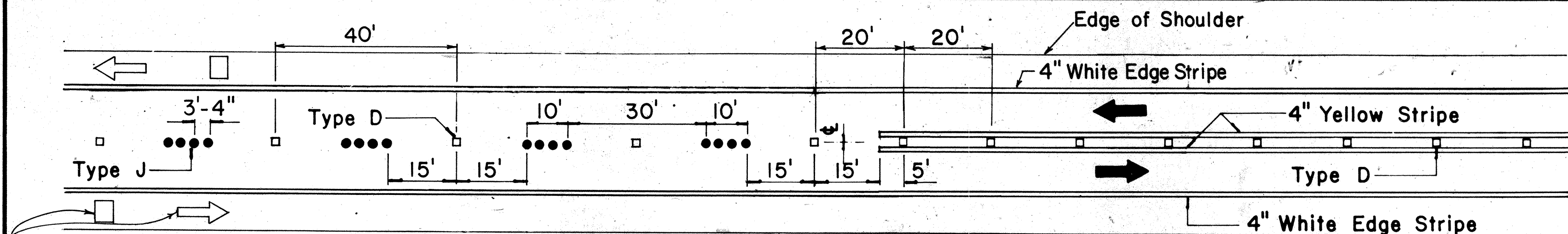
STANDARD DETAILS
MISCELLANEOUS
INTERSECTION SIGNS

Scale: 1 1/2" = 1'-0" Date: Aug., 1977

SHEET NO. 7 OF 13 SHEETS DT 112

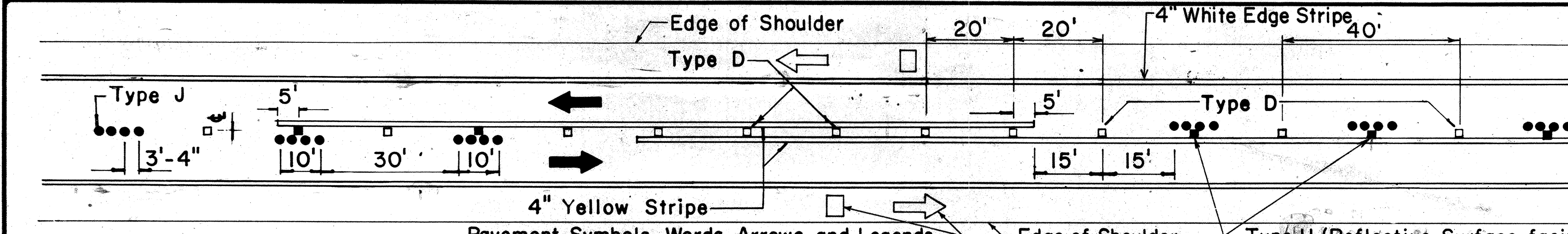
DATE	
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	2000A-01-81	1981	15	20



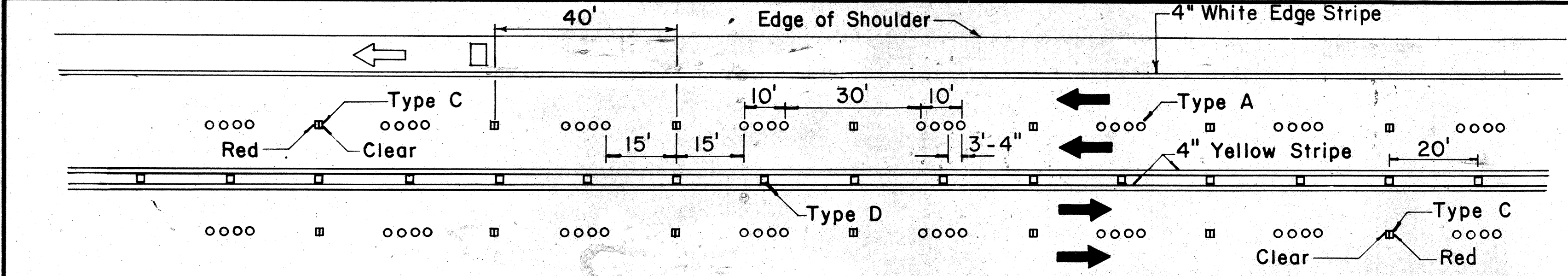
Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

PASSING PERMITTED AND PASSING PROHIBITED



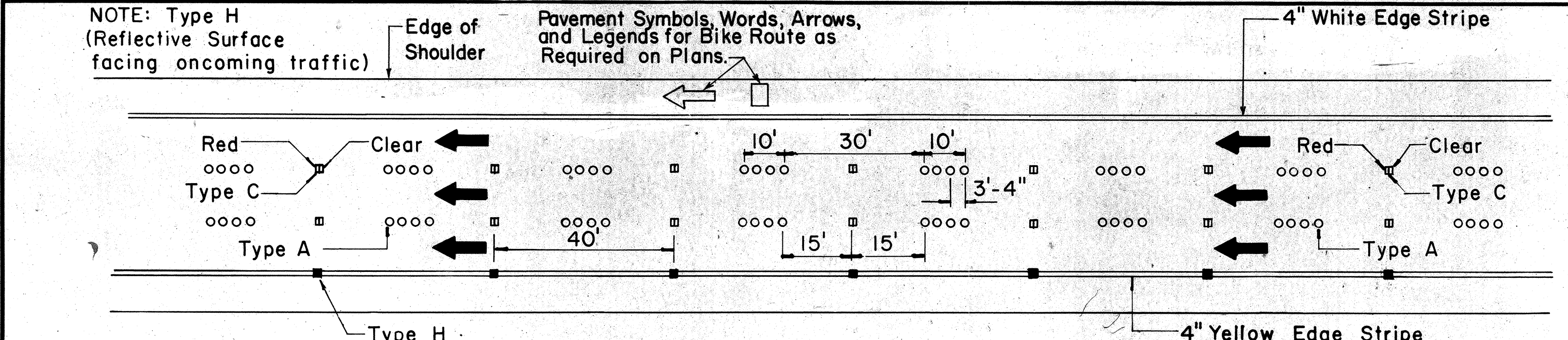
Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

PASSING PROHIBITED ZONES

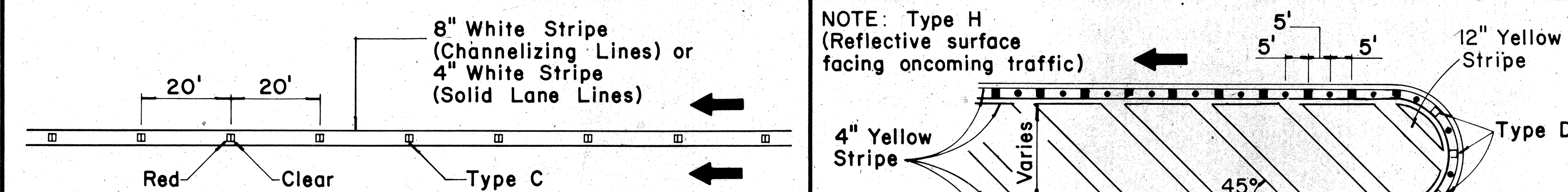


Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

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



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



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

CHANNELIZING LINES OR SOLID LANE LINES

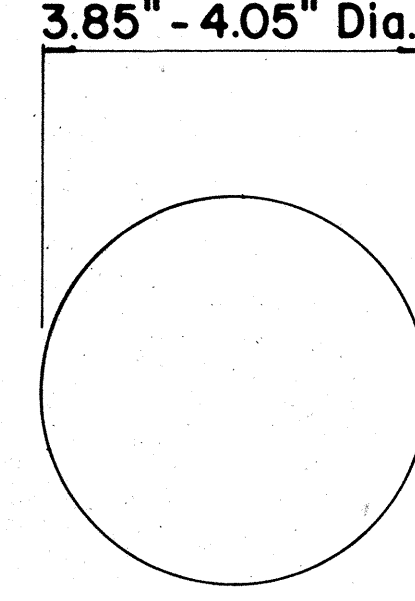
MEDIAN NOSE DELINEATION

TWO - LANE

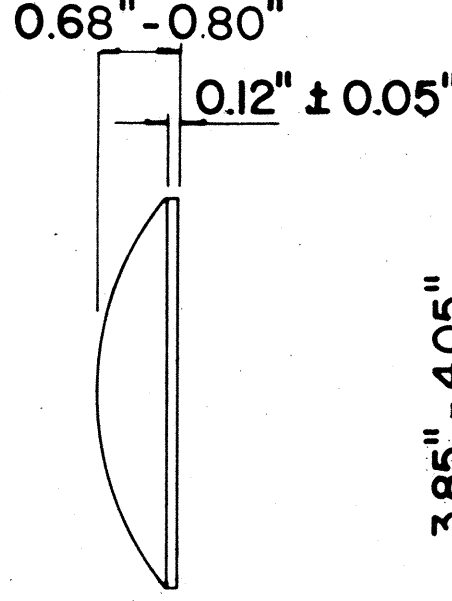
MULTI - LANE

DIVIDED HIGHWAY AND FREEWAY

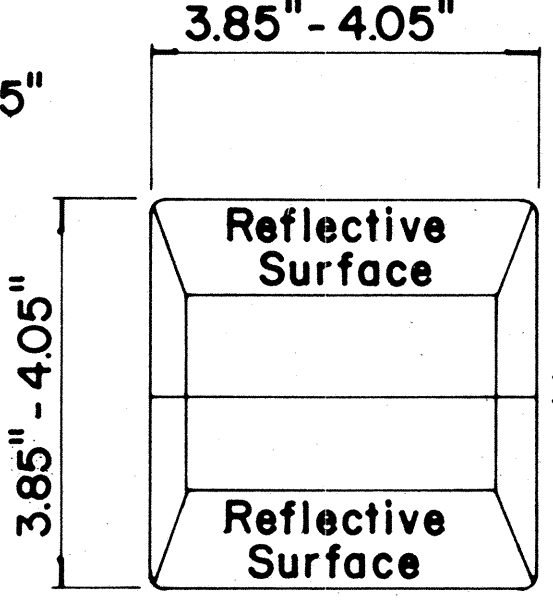
MISCELLANEOUS



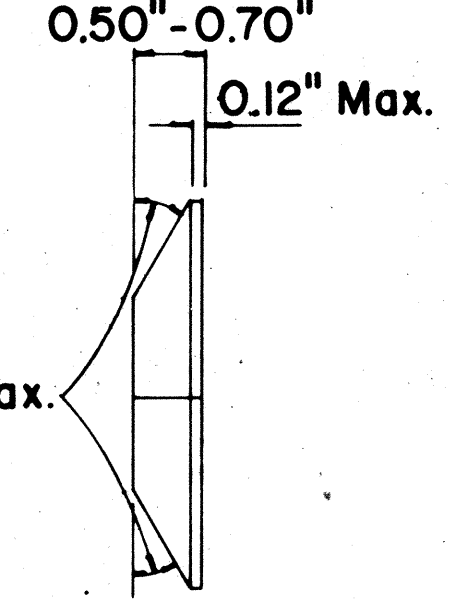
TYPE A
NON-REFLECTIVE WHITE MARKER



TYPE J
NON-REFLECTIVE YELLOW MARKER



TYPE C
RED-CLEAR REFLECTIVE MARKER



TYPE H
ONE-WAY YELLOW REFLECTIVE MARKER

GENERAL NOTES

- Pavement marking and striping shall conform to the latest "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- Layout and installation of pavement marking and striping shall be done by the Contractor. The Contractor shall check the layouts with the Engineer prior to performing work.

LEGEND

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

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

APPROVED:
Harbert S. DeKish 1/24/78
ASSISTANT CHIEF, ENGINEERING DATE

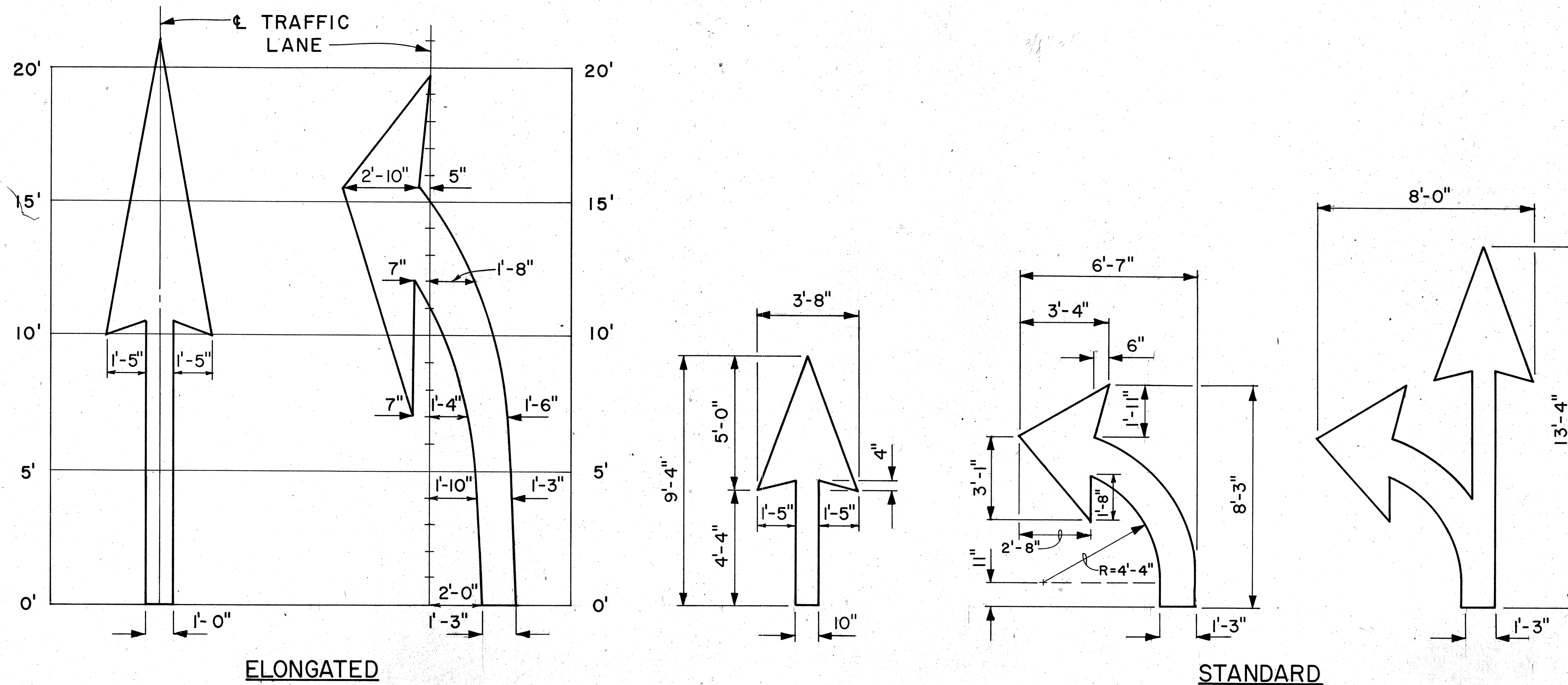
No.	REVISION	APPROVED BY	DATE
1	Supersedes DT 300 approved 11/18/71.	H.T.	1/24/78
2	Delete Type A Markers from Bike Route Delineation.	H.T.	10/15/79

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
STANDARD DETAILS RAISED PAVEMENT MARKERS AND STRIPING
Not to Scale July 1978
SHEET No. 8 OF 13 SHEETS DT 300

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	8000A-01-8	1981	16	20

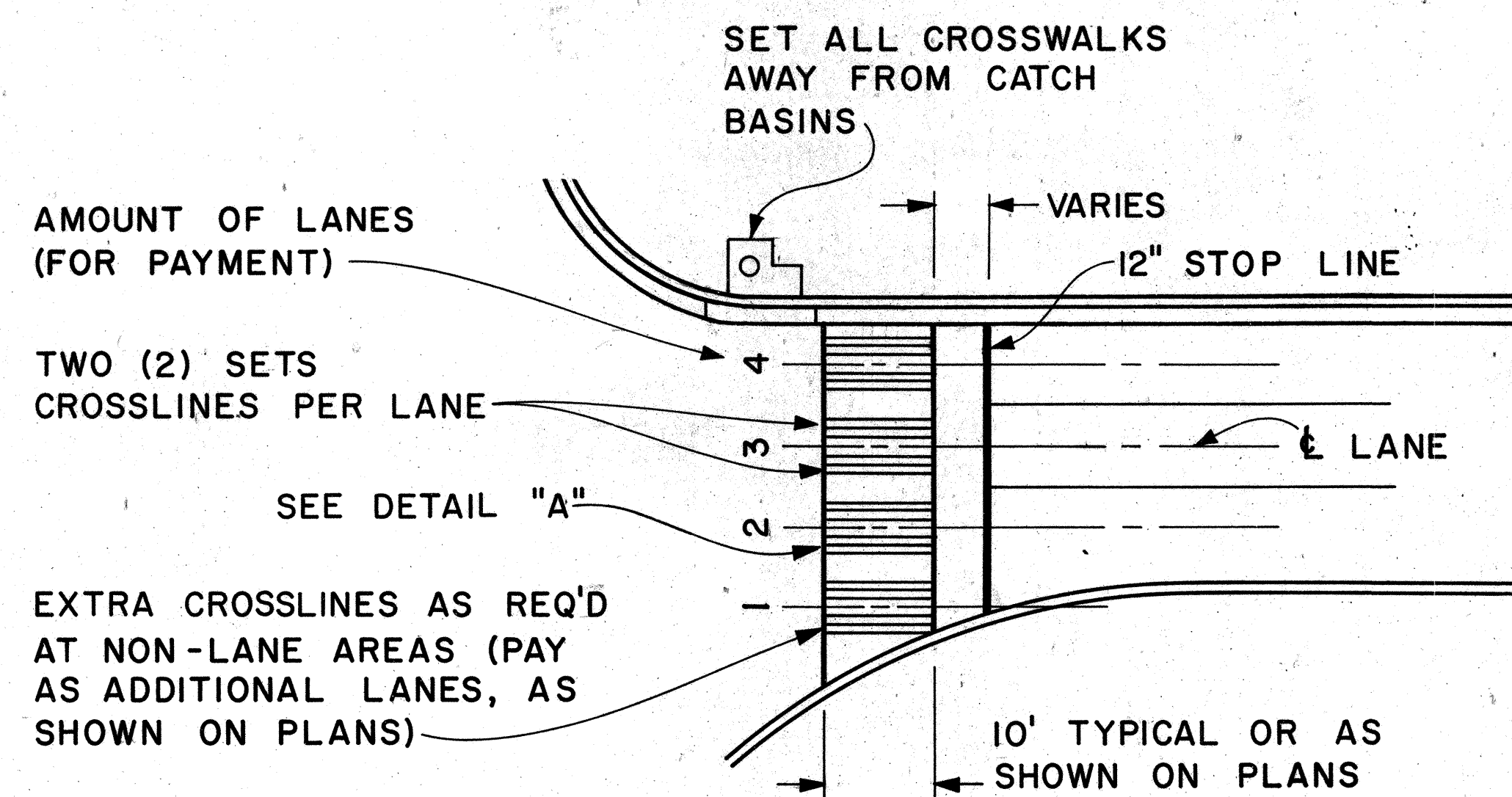
GENERAL NOTES:

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.

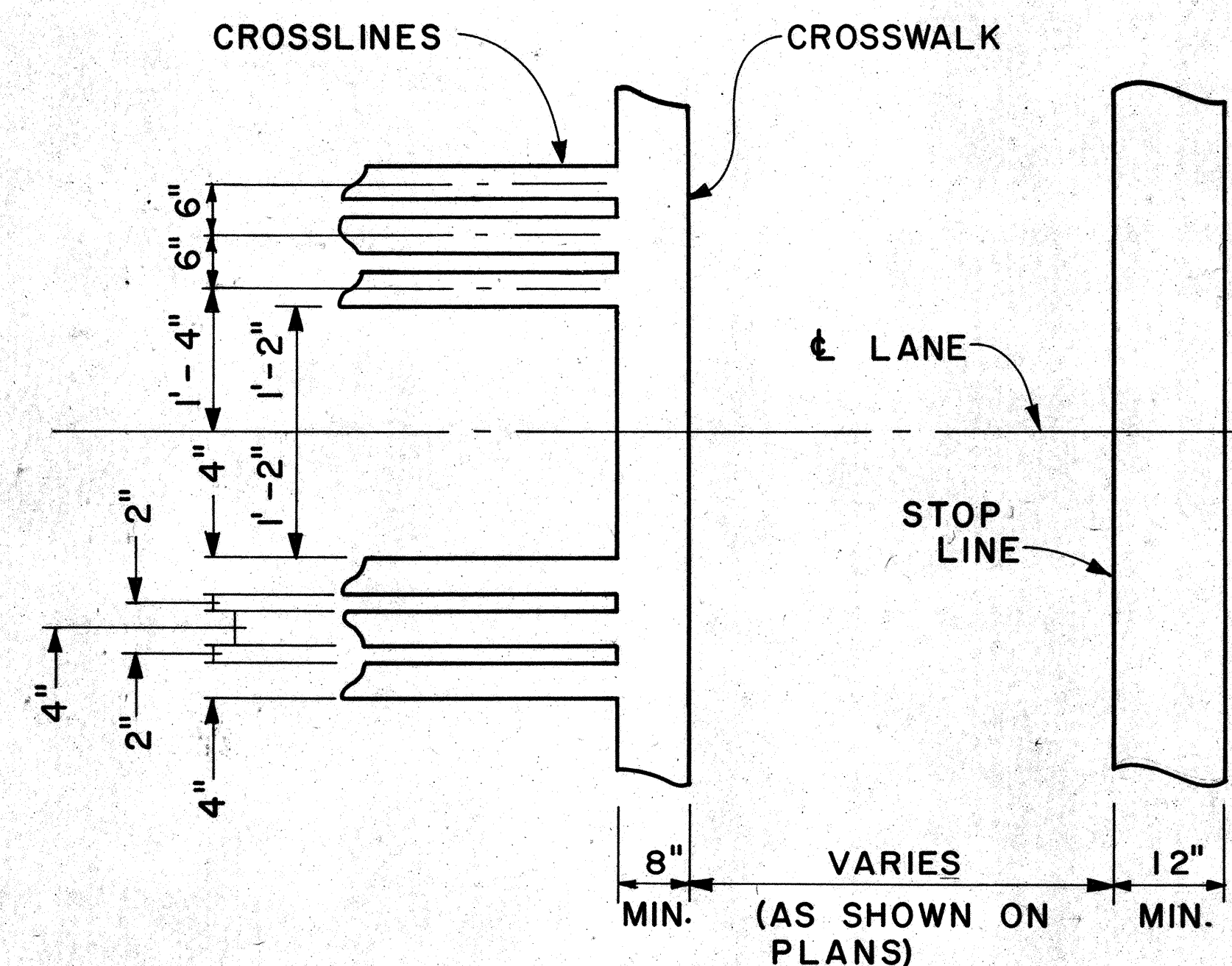


PAVEMENT ARROWS

Scale: 3/8" = 1'



PLAN



DETAIL "A"

CROSSWALK & STOP LINE

Scale: Not to Scale

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

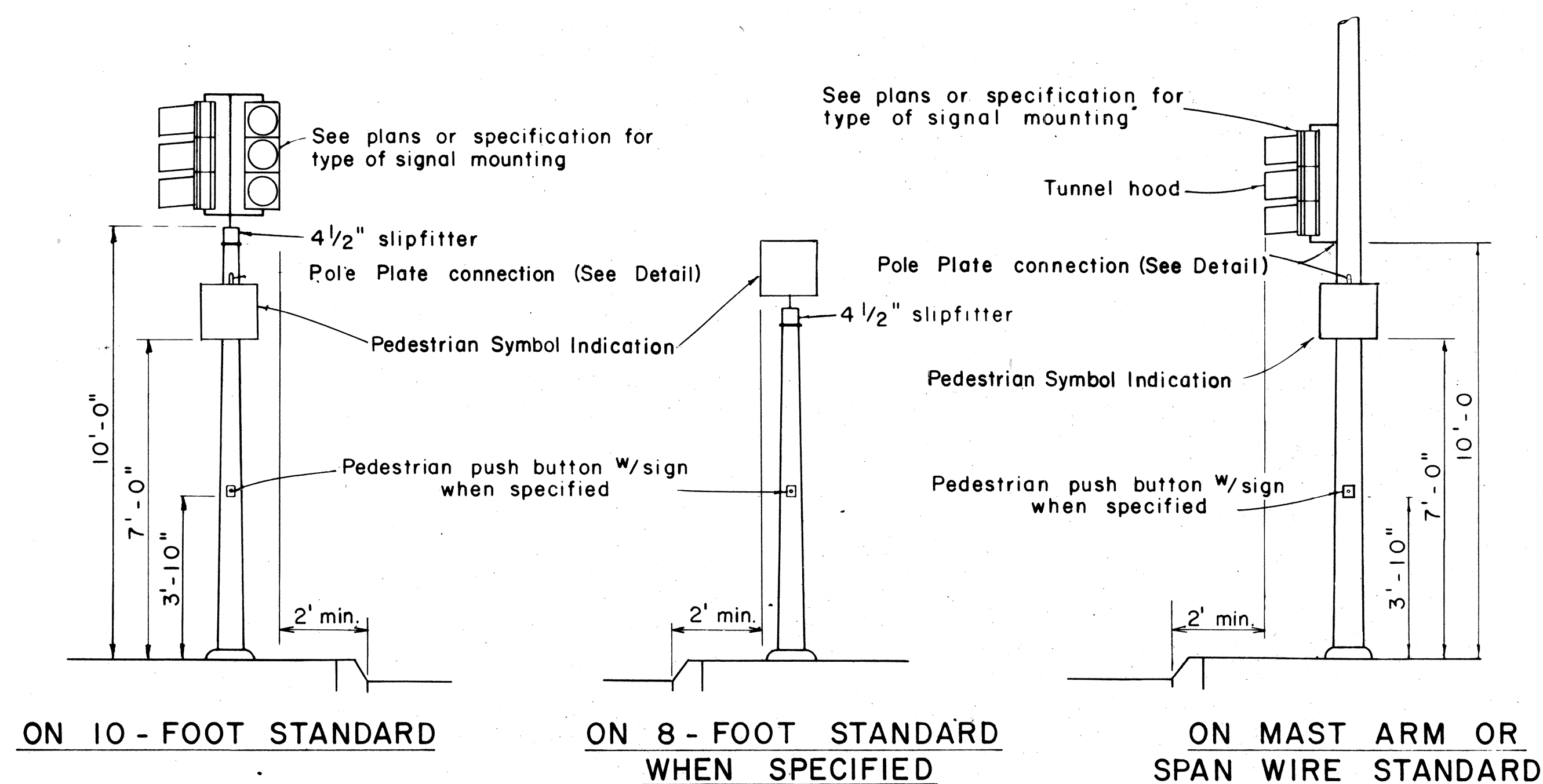
APPROVED:
Harold S. Zaleski 5/2/78
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

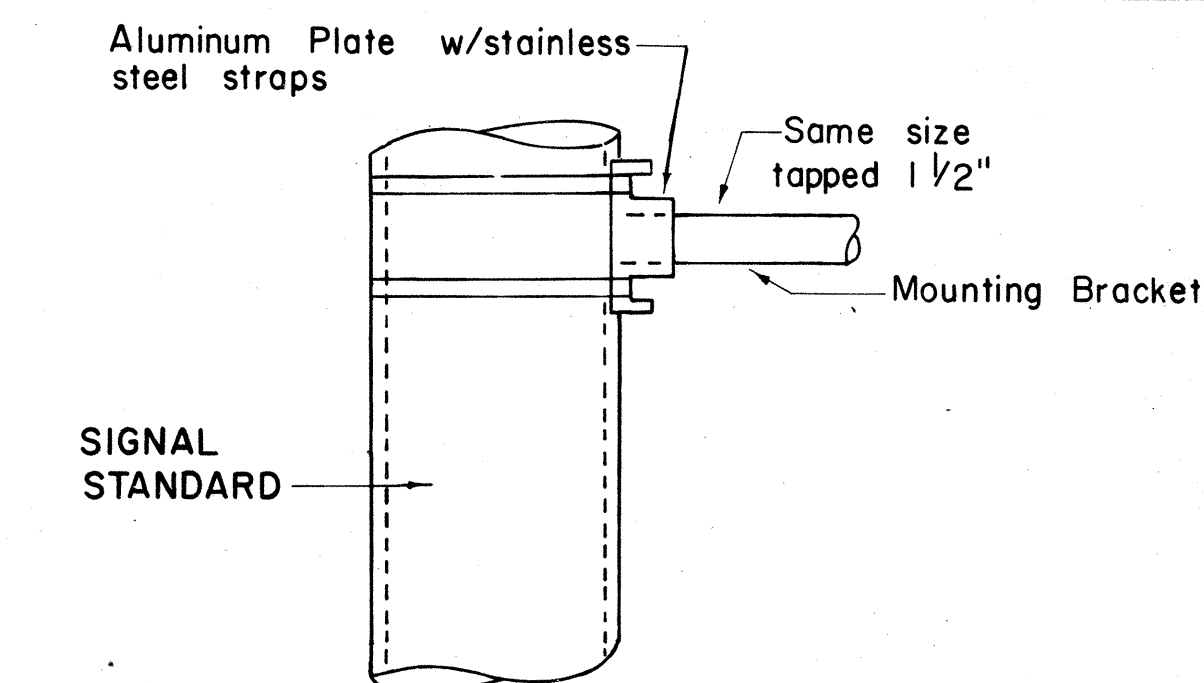
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION
STANDARD DETAILS
 MISCELLANEOUS
 PAVEMENT MARKINGS

Scale: As Shown Date: March, 1978
 SHEET NO. 16 OF 13 SHEETS DT 306

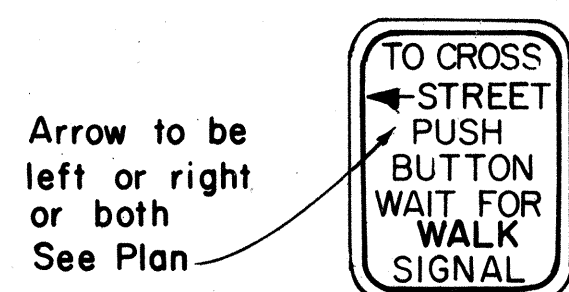
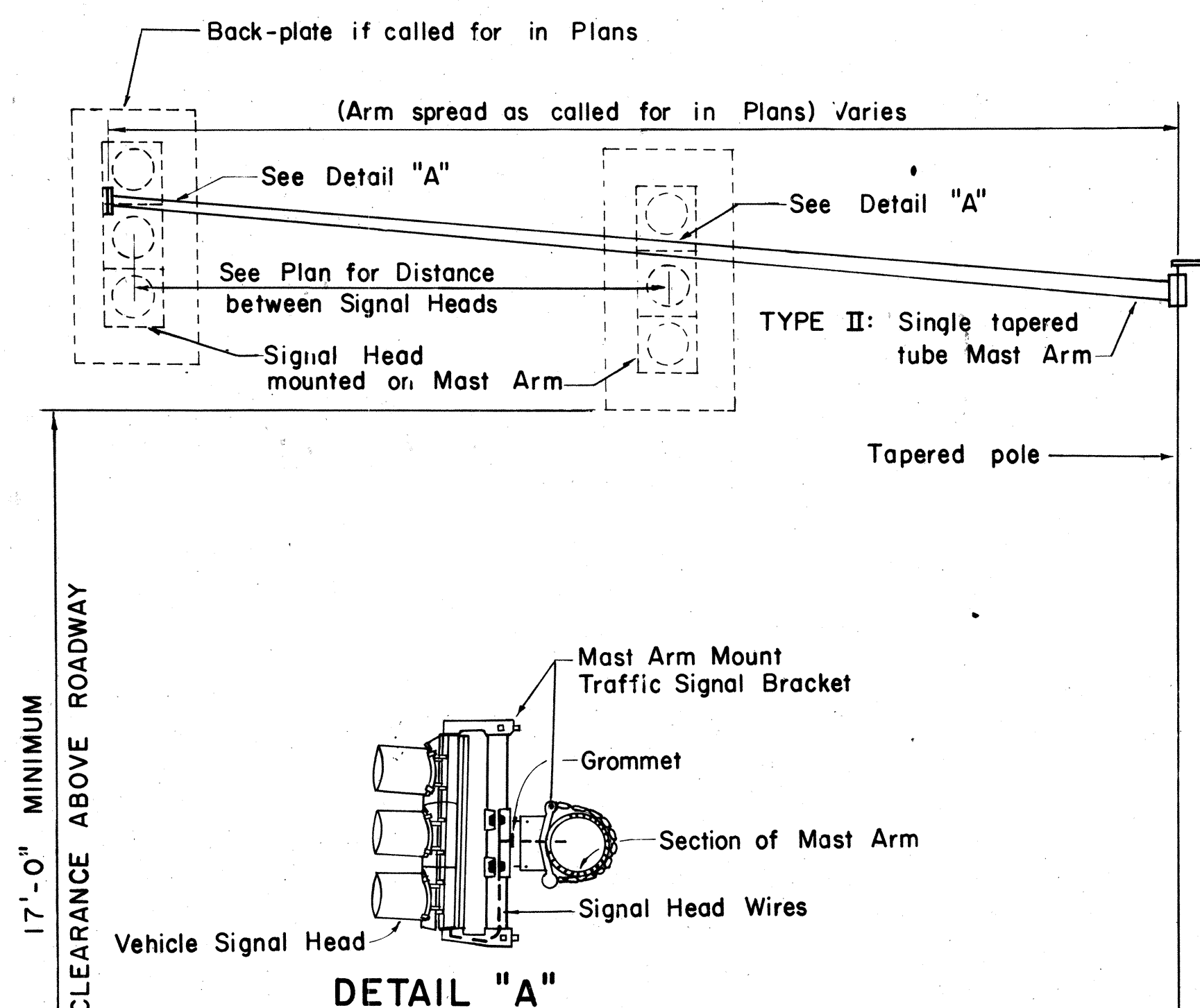
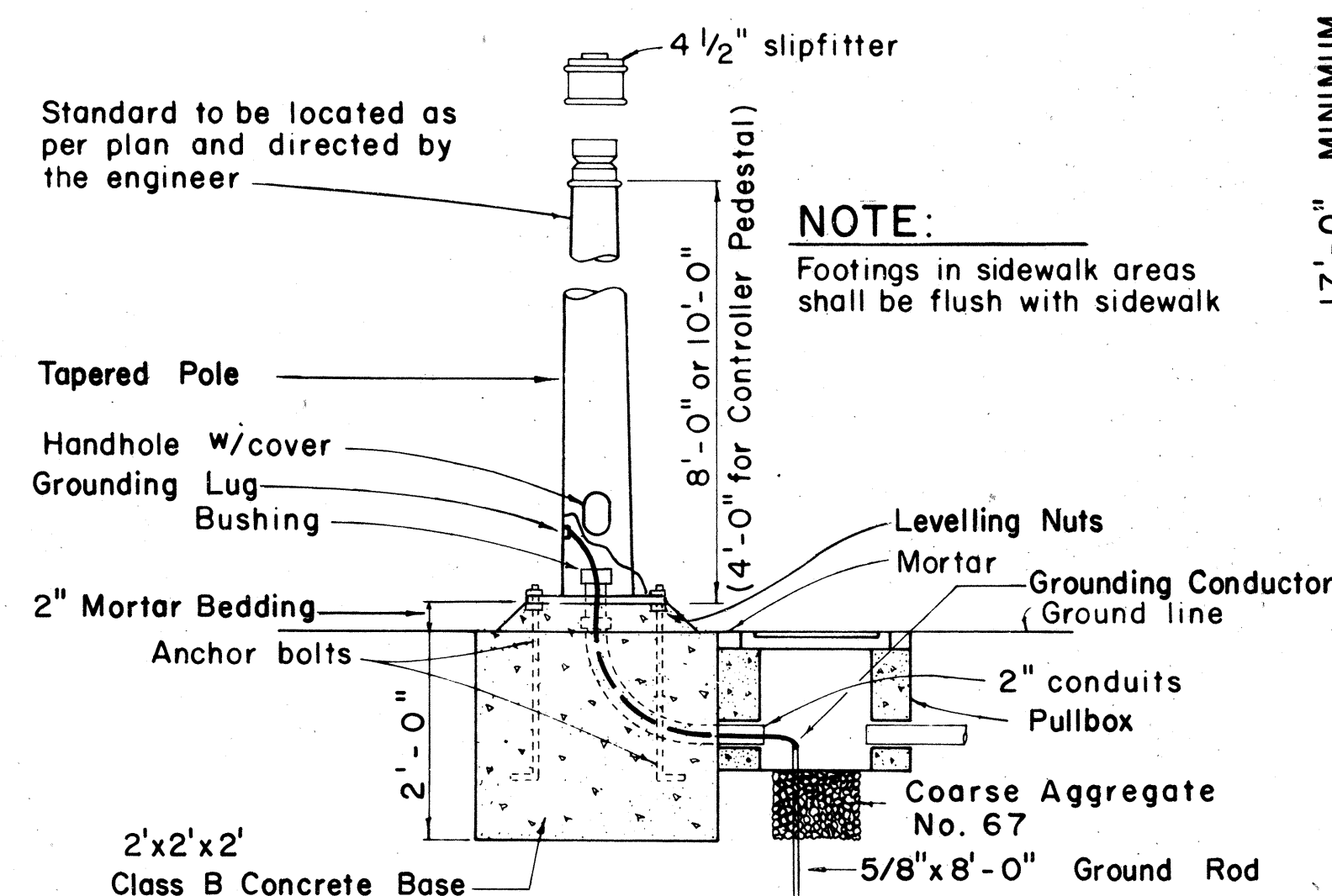
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	9000A-01-B1	1981	17	20



TYPICAL EQUIPMENT MOUNTINGS



DETAIL OF POLE PLATE CONNECTIONS



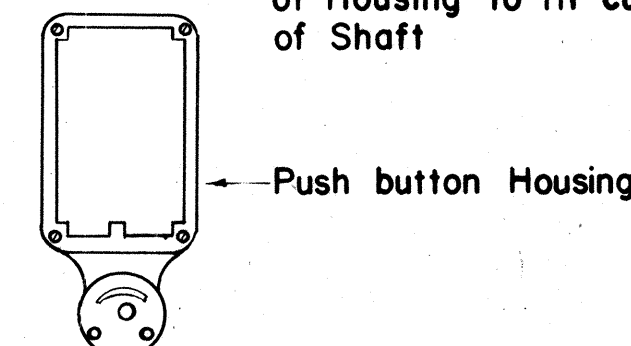
RIO-4a(L)
5" x 7"

PEDESTRIAN
PUSH BUTTON

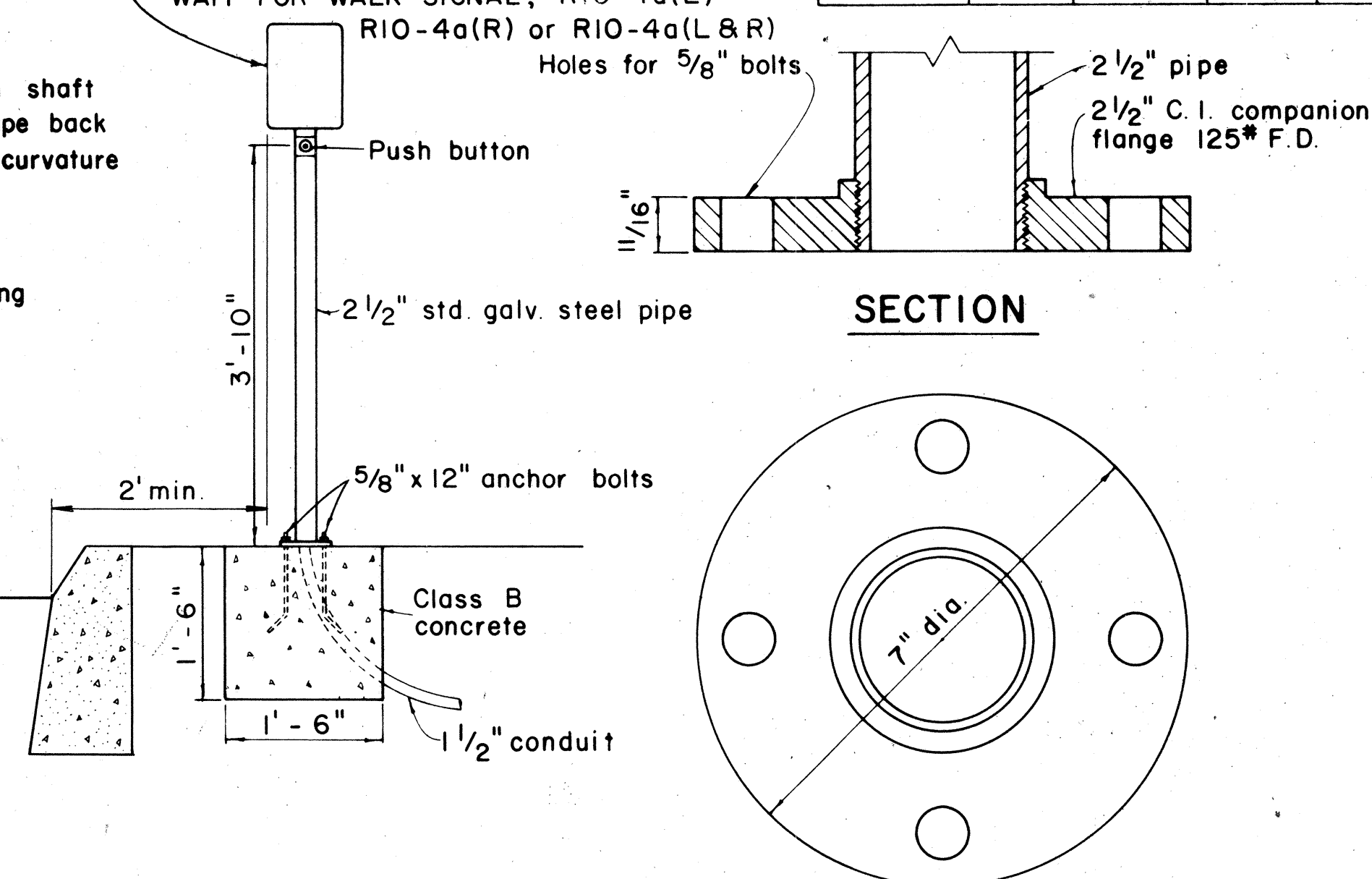
NOTE:

1. Conduits shall protrude 2" max. above finished surface of foundation.
2. Conduits shall slope away from pole foundation.

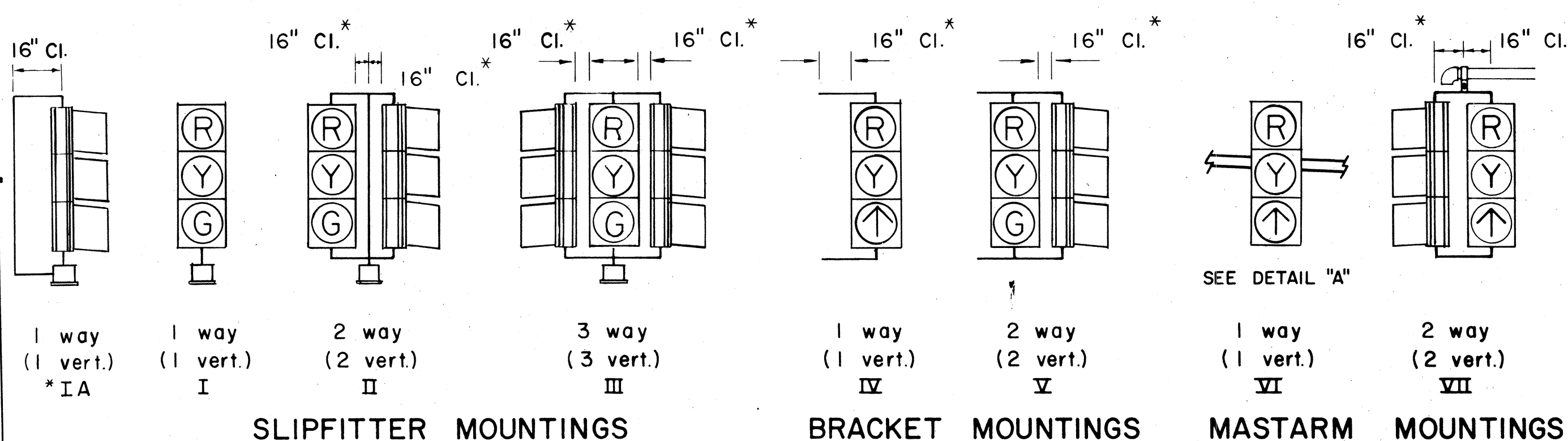
When mounted on shaft of Standard, shape back of Housing to fit curvature of Shaft



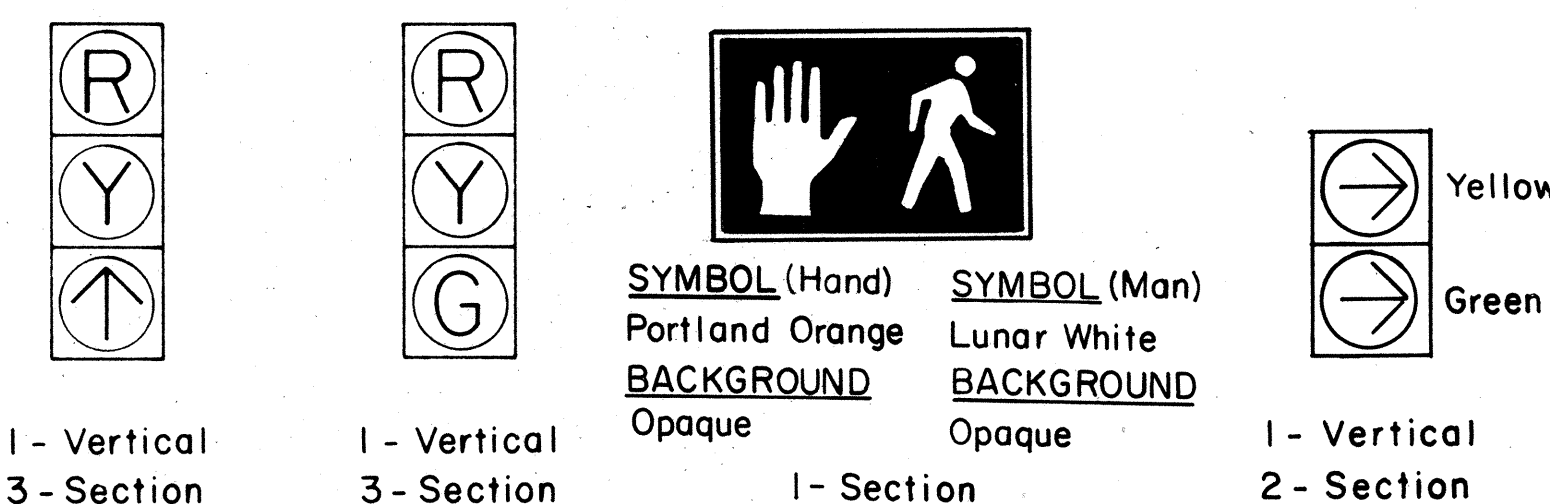
TRAFFIC SIGN AS SPECIFIED IN PLAN
"TO CROSS STREET (ARROW) PUSH BUTTON
WAIT FOR WALK SIGNAL", RIO-4a(L)
RIO-4a(R) or RIO-4a(L&R)



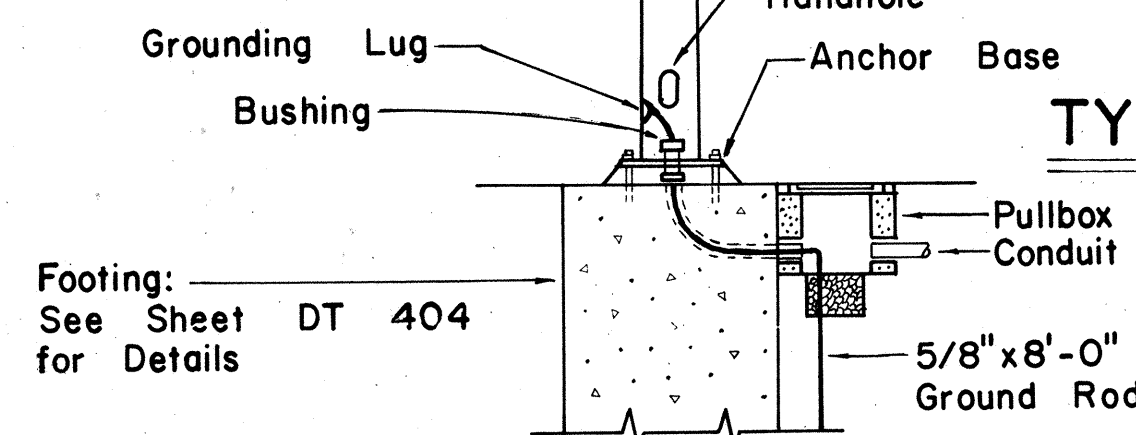
PEDESTRIAN PUSH BUTTON POST AND FOOTING



TYPICAL VEHICULAR AND PEDESTRIAN SIGNAL MOUNTINGS



TYPICAL SIGNAL ARRANGEMENTS



NO	REVISION	APPROVED BY	DATE
1	Revise code nos. for Pedestrian Push Button signs.	H.T.	3/23/72
2	Revise Details of Traffic and Pedestrian Signals, Standards and Pedestrian Push Button and Signs.	H.T.	3/5/72
3	Revise signal indications.	H.T.	9/22/76
4	Remove Note No. 3 & Revise clearance and dimension.	H.T.	9/19/77
5	Revise Ped. Signal Indication	H.T.	8/6/80

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

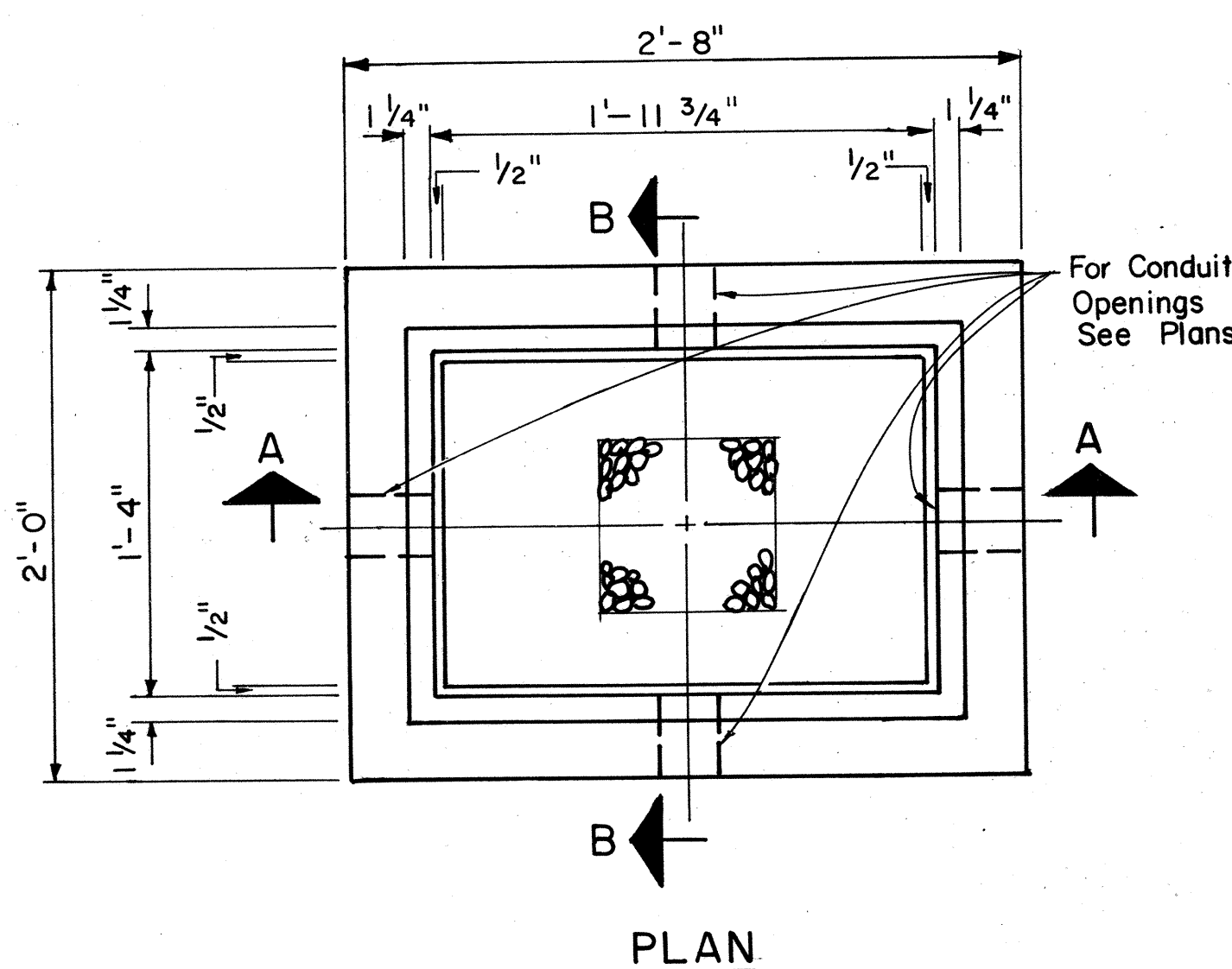
John J. J. J. 12/29/69
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TRAFFIC SIGNAL SYSTEM
MISCELLANEOUS DETAILS

Not to Scale

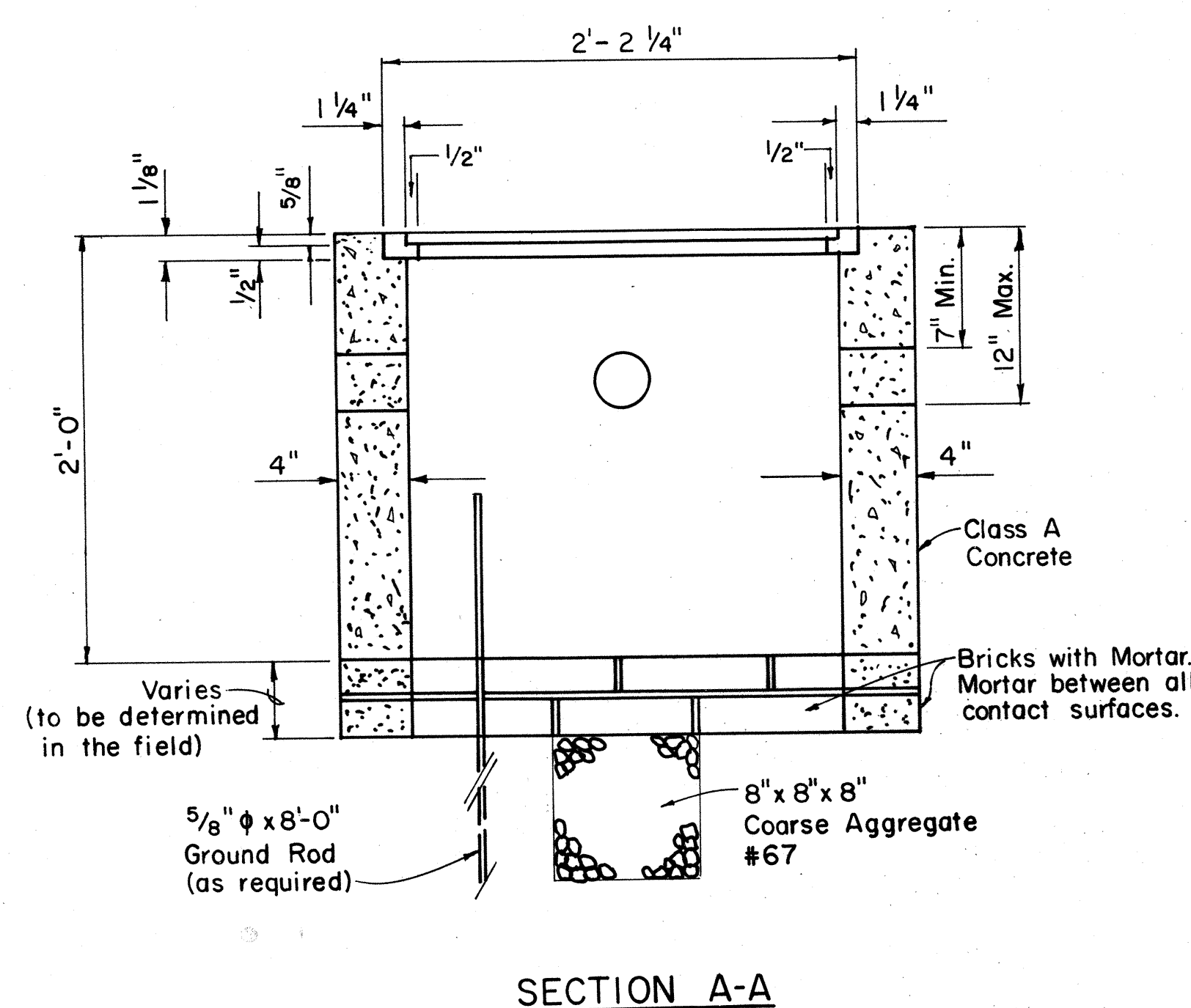
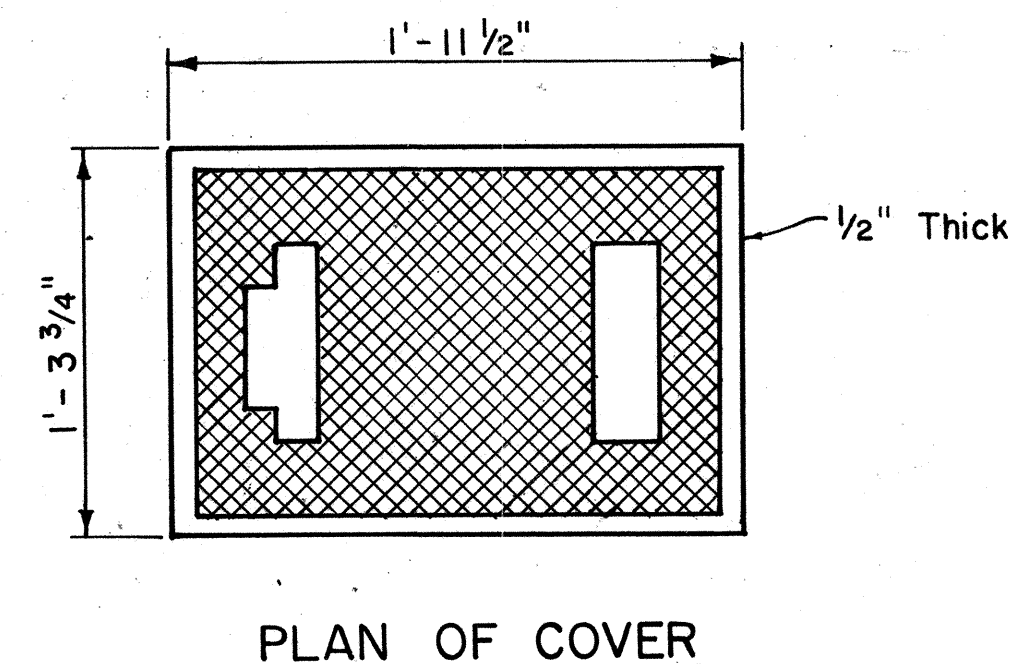
SHEET No. 10 OF 13 SHEETS DT 400

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	9000A-01-81	1981	18	20

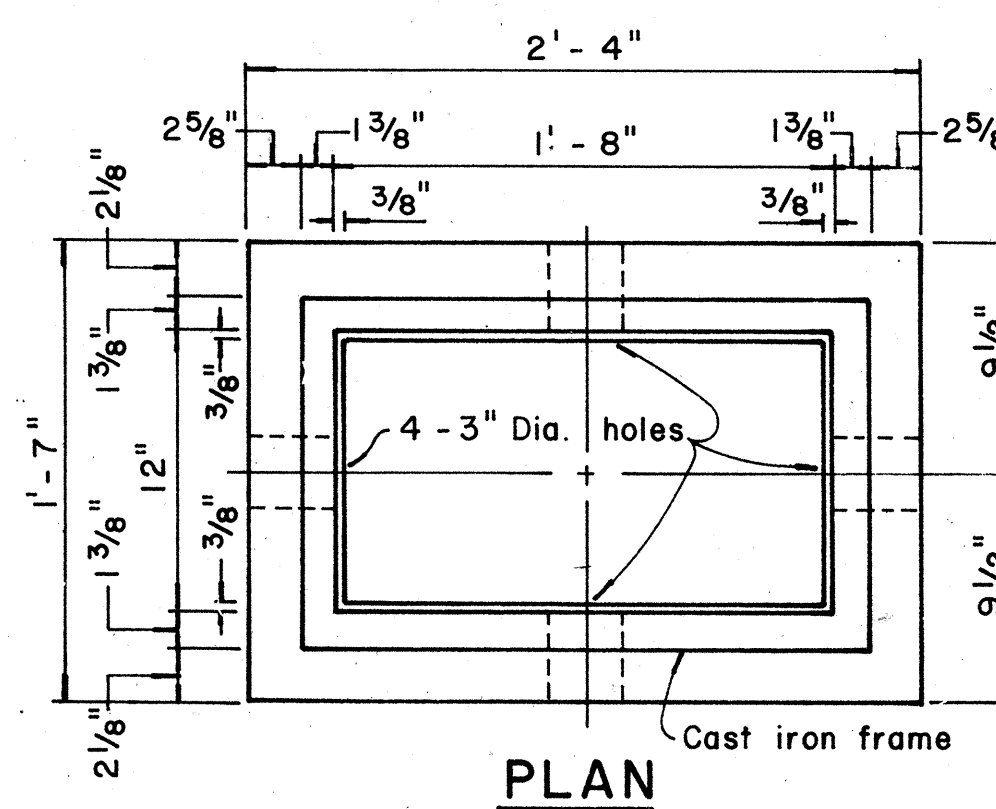
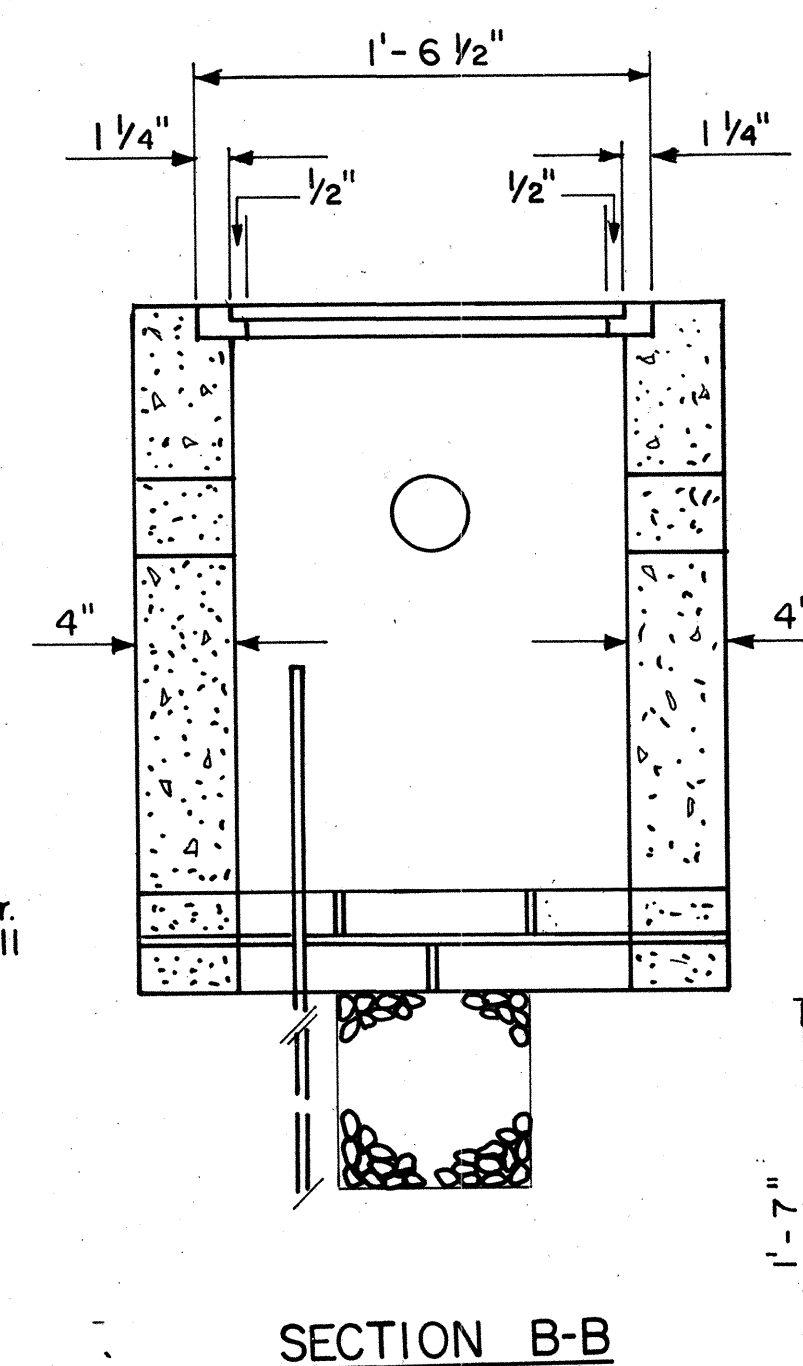


NOTE:

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

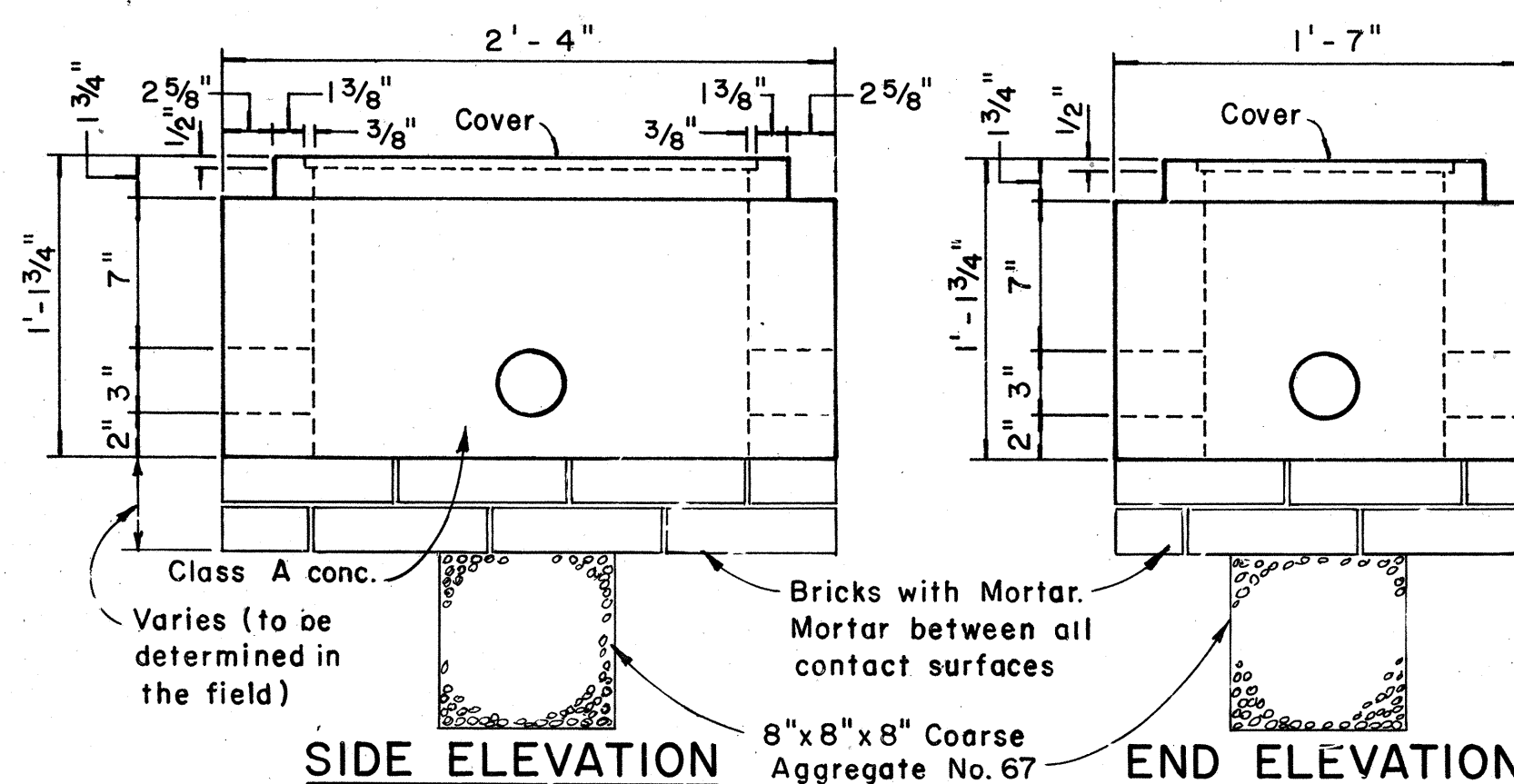
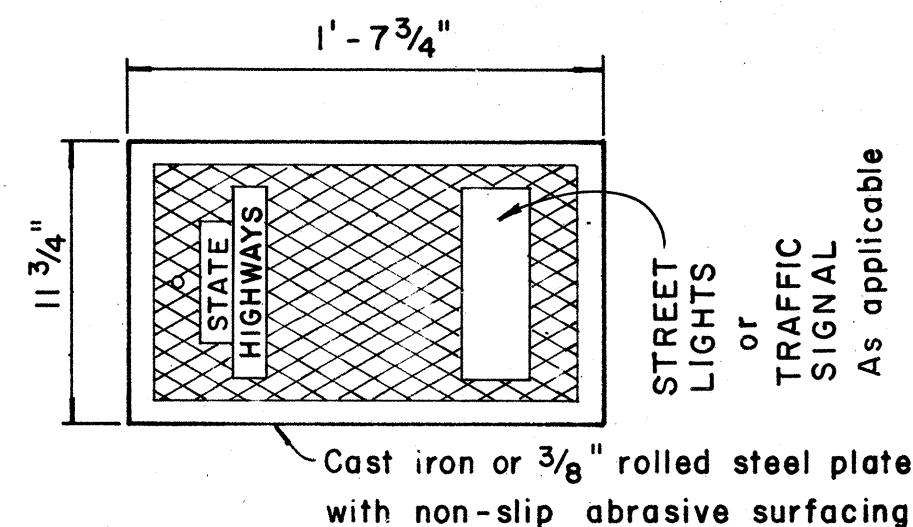


TYPE "A" PULLBOX
Scale: 1/2" = 1'-0"

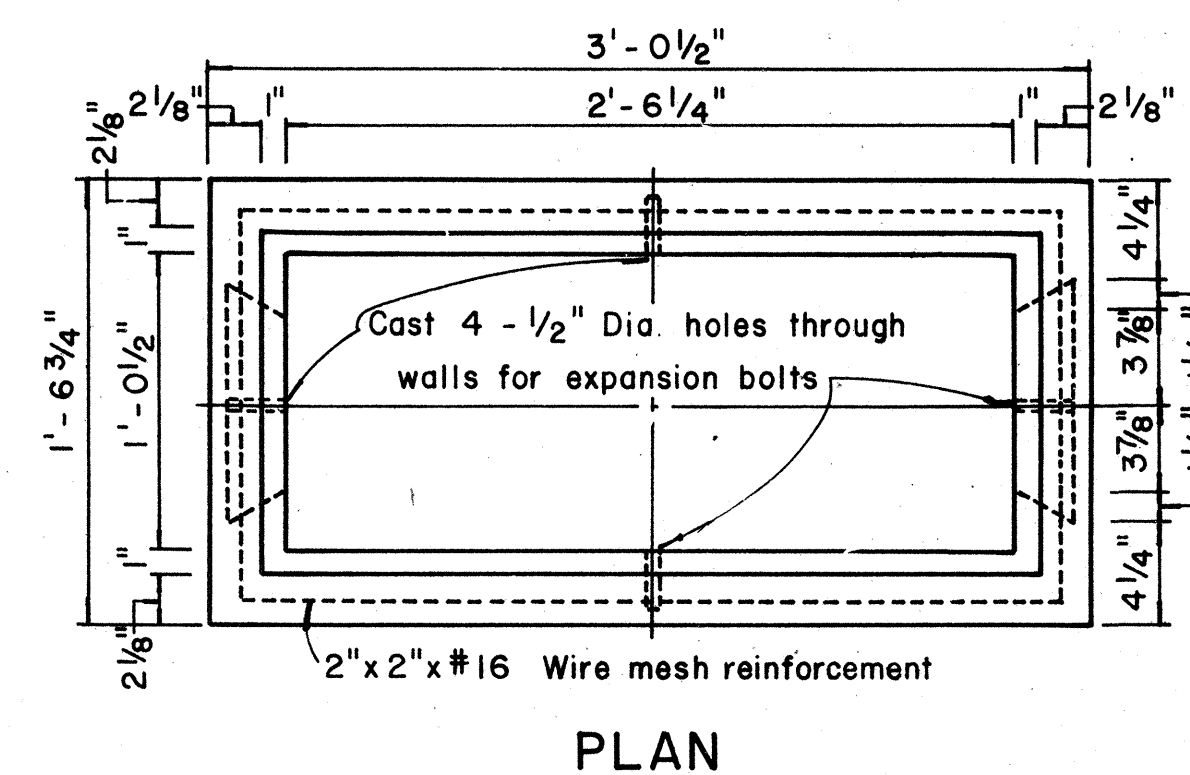


NOTE:

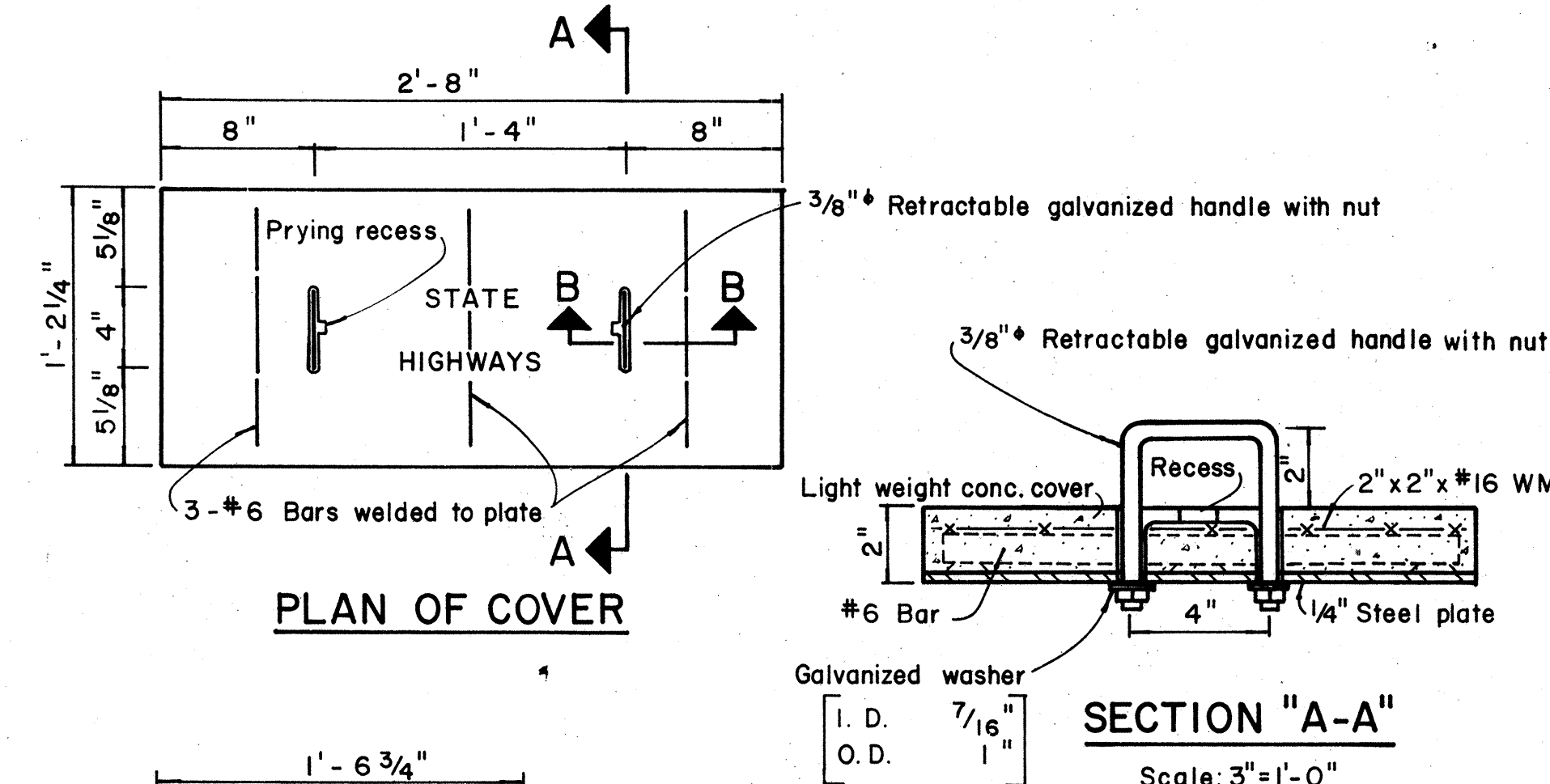
Steel rim shall be welded to bottom of steel cover if necessary so that top of cover and frame are flush.



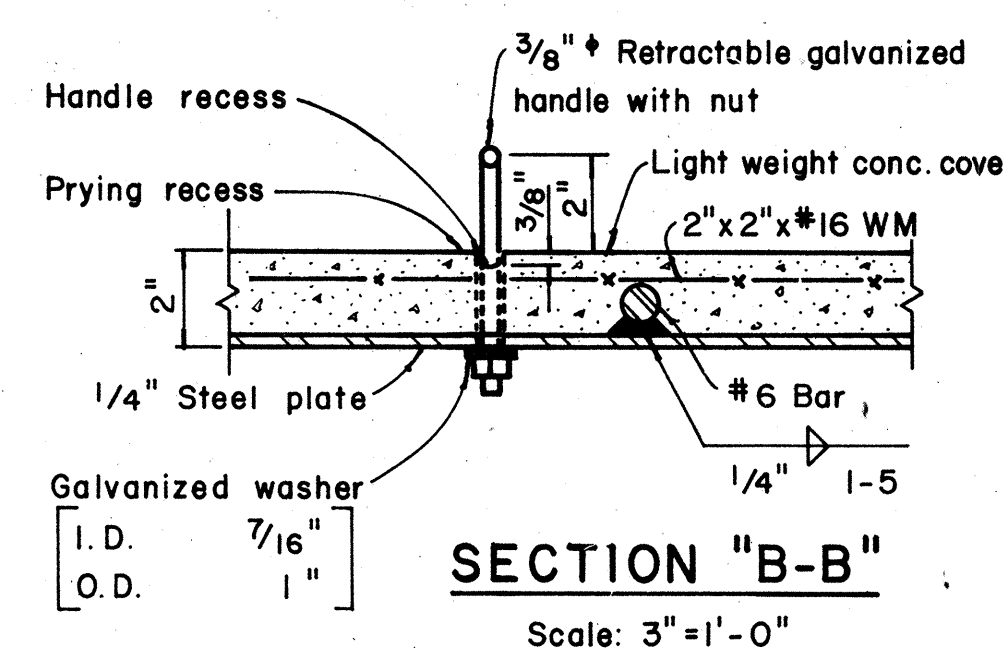
TYPE "B" PULLBOX
Scale: 1/2" = 1'-0"



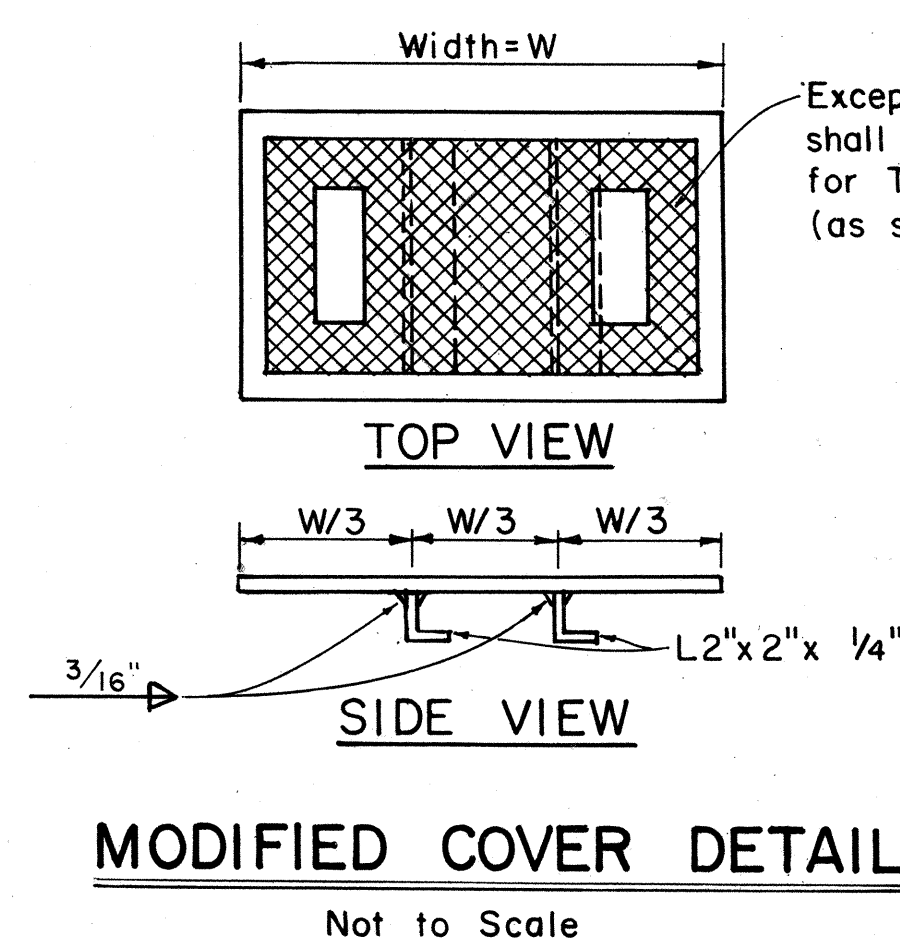
SIDE ELEVATION



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



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



NOTE:

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

APPROVAL RECOMMENDED:
TRAFFIC ENGINEER
12/29/69
DATE

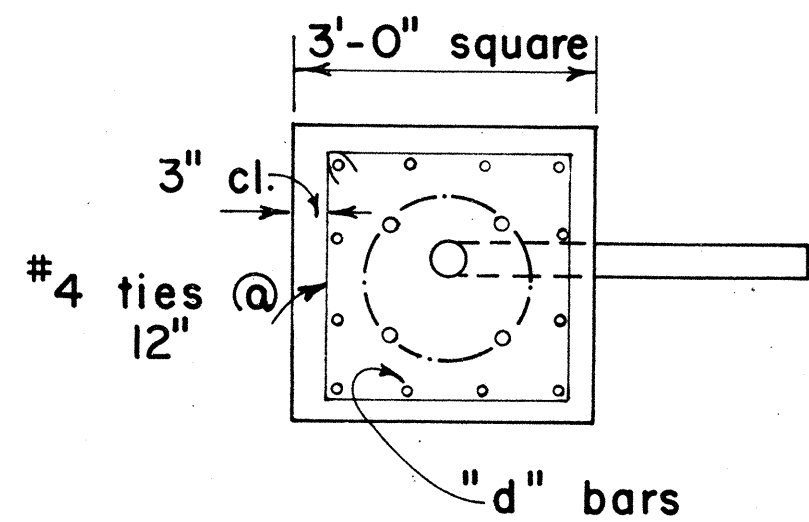
APPROVED:
ASSISTANT CHIEF, ENGINEERING
12-30-69
DATE

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

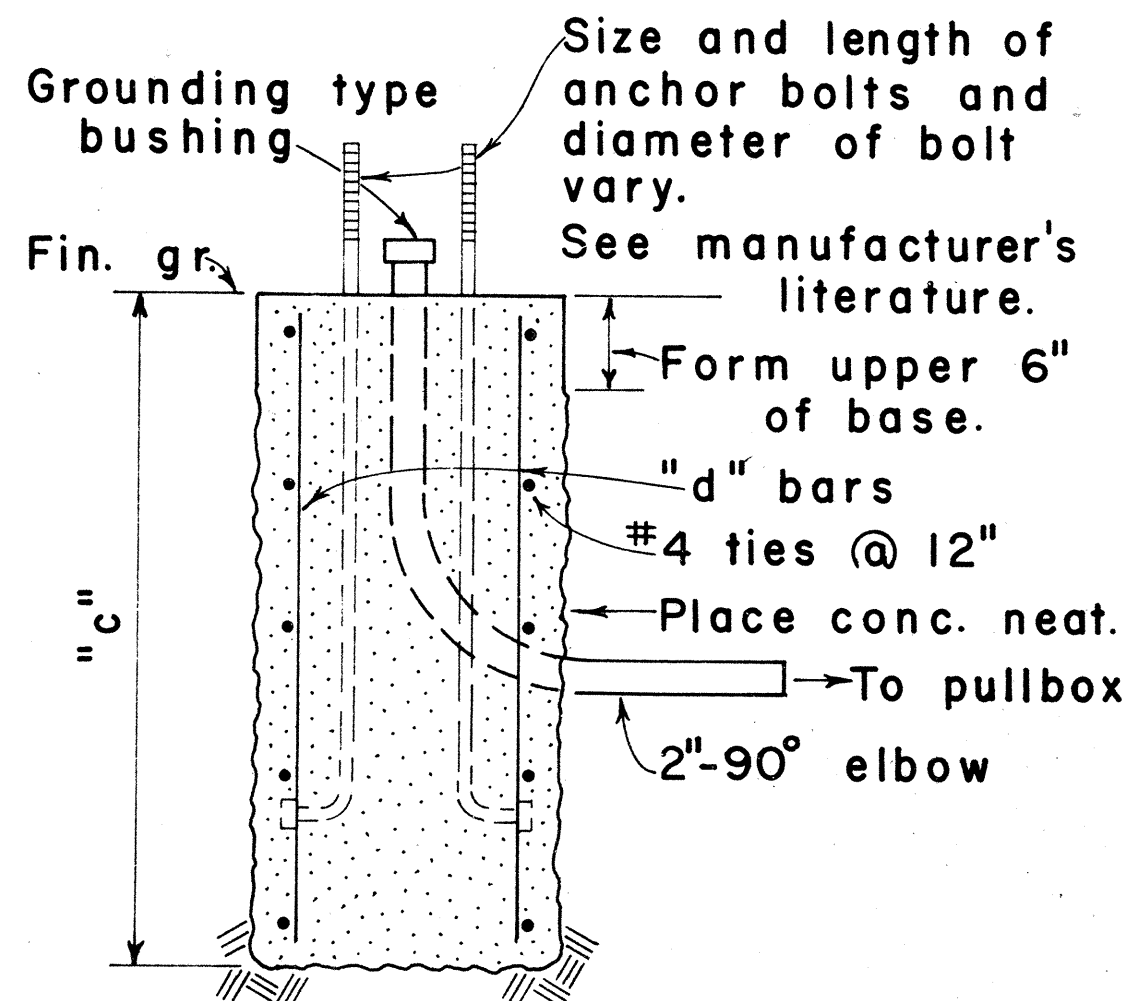
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION STANDARD DETAILS PULLBOXES Scale as noted Date

SHEET No. 11 OF 13 SHEETS DT 401

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	2000A-01-81	1981	19	20



PLAN - SECTION

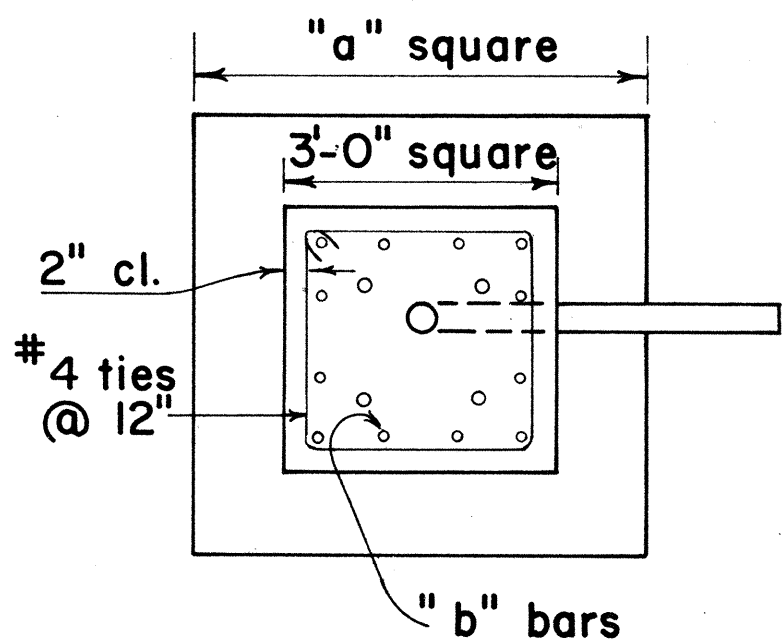


NOTE:
Concrete shall be Class B.

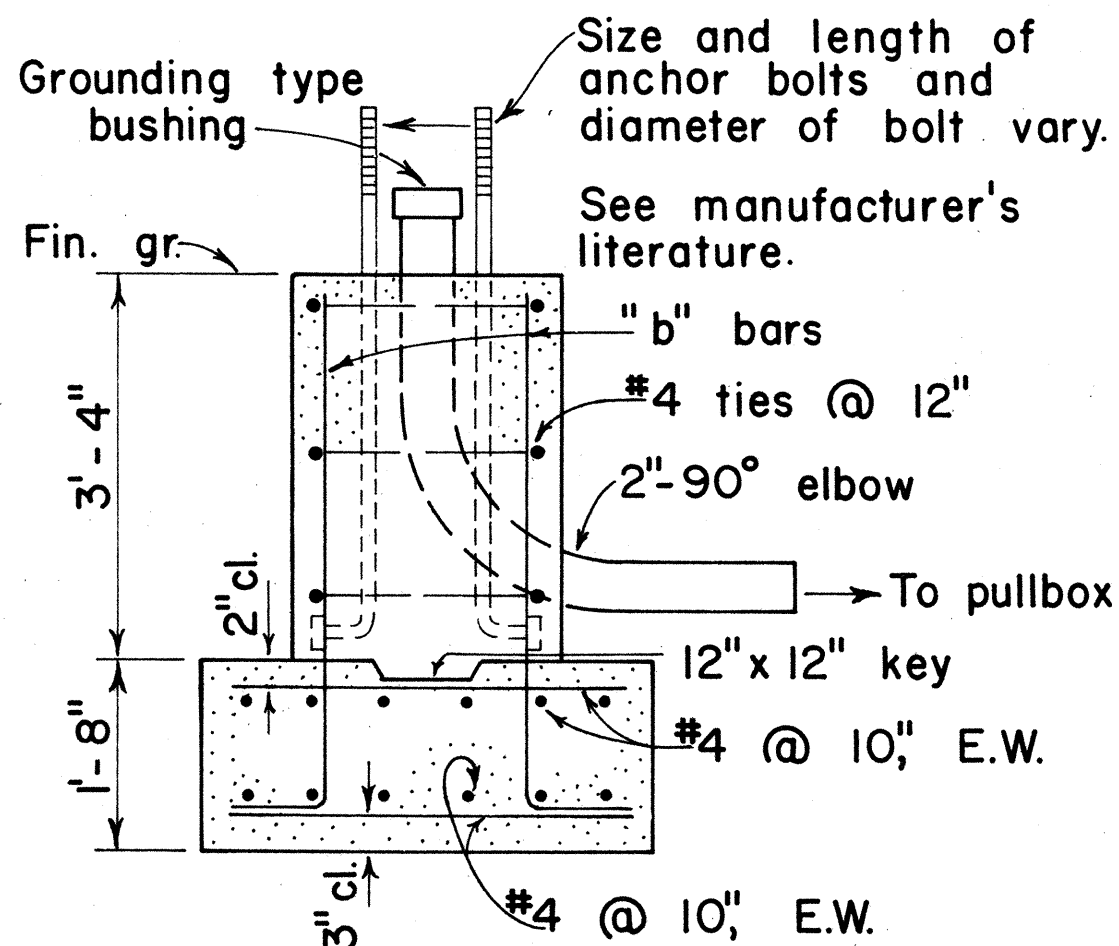
SECTION

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

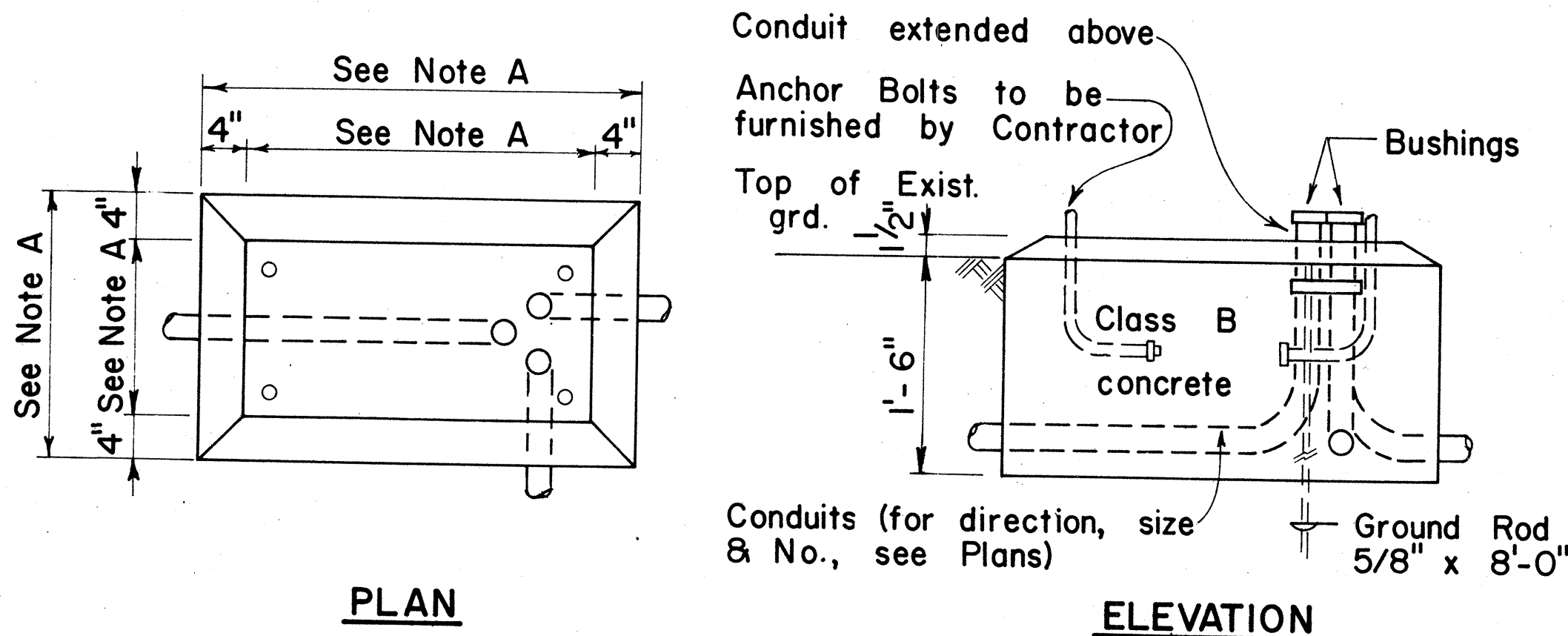


NOTE:
Concrete shall be Class B.

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



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:
Erich Tanaka
TRAFFIC ENGINEER
3/7/76
DATE

APPROVED:
Robert B. Sakash
ASSISTANT CHIEF, ENGINEERING
2-5-76
DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

TRAFFIC SIGNAL SYSTEM
MISCELLANEOUS DETAILS

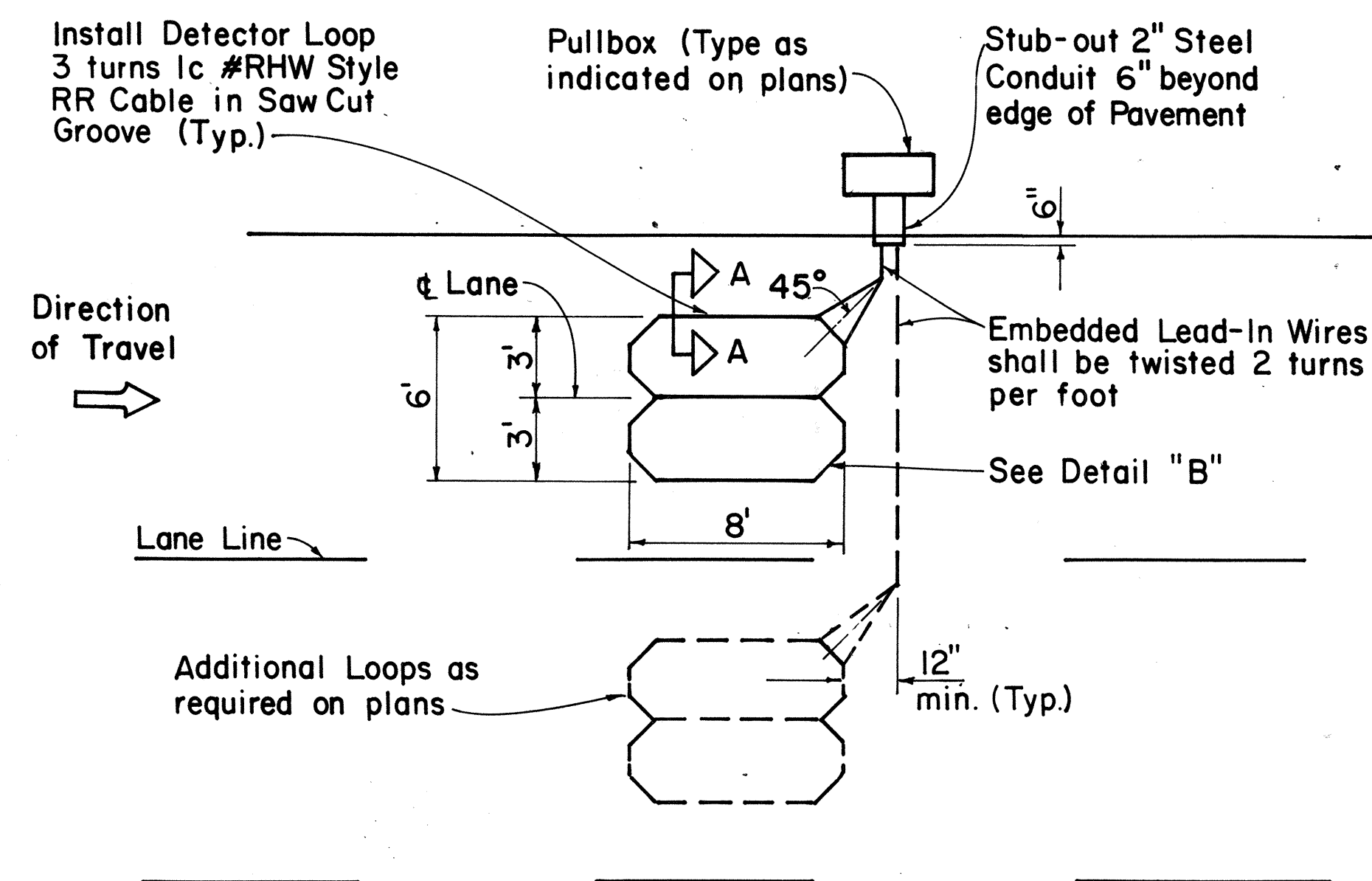
Not to Scale

SHEET NO. 12 OF 13 SHEETS DT404

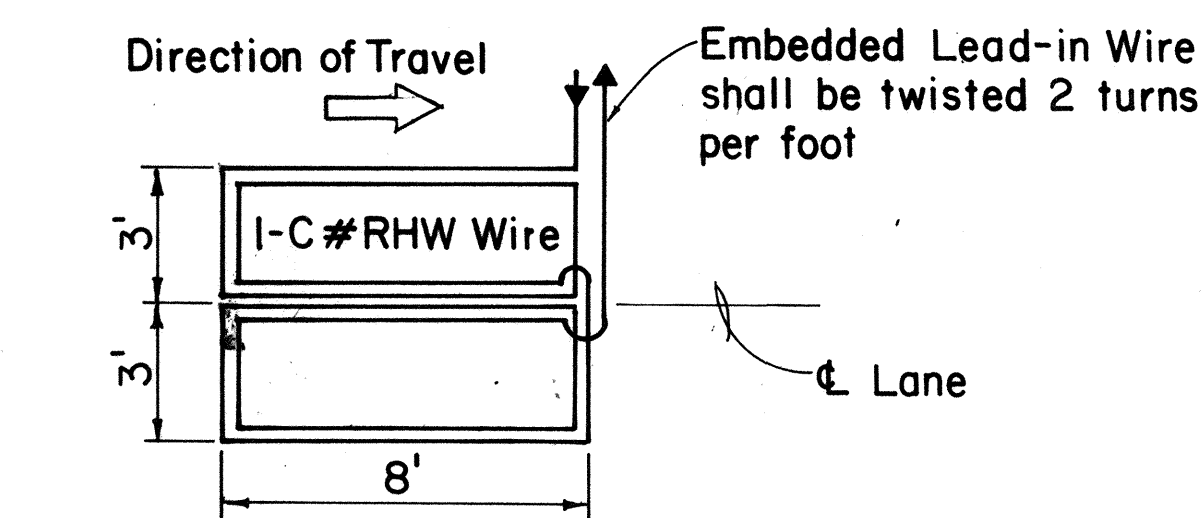
DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FOOTING FOR MAST ARM STANDARD

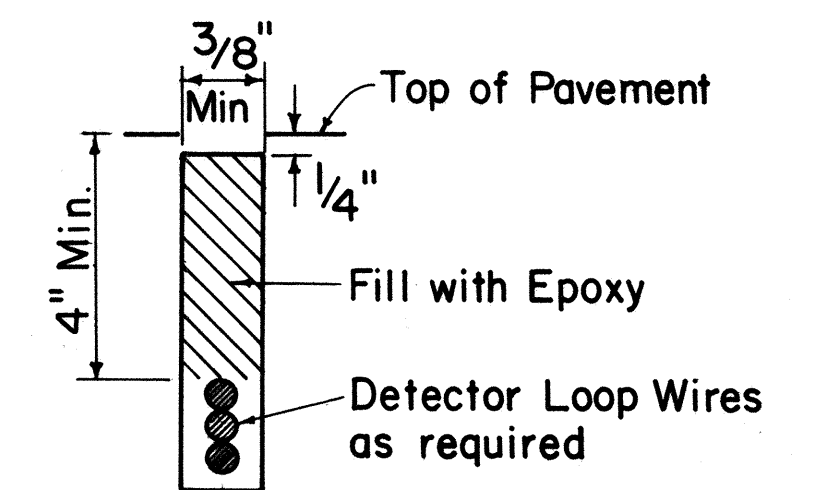
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	9000A-01-81	1981	20	20



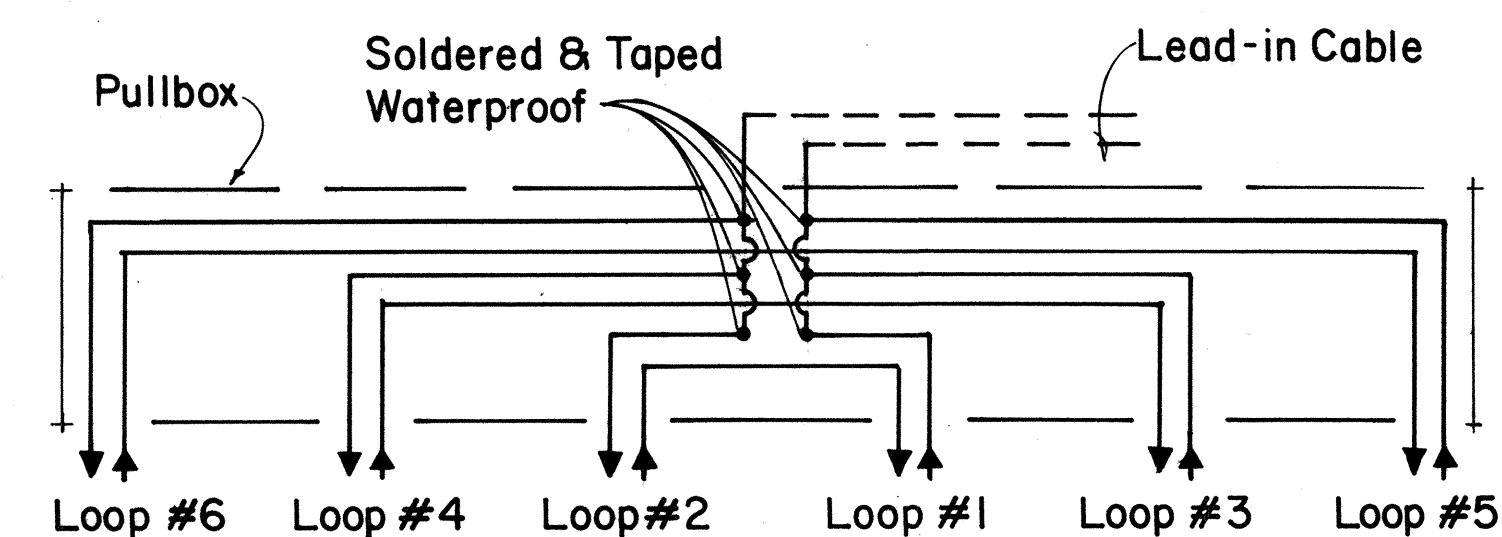
SINGLE LOOP LAYOUT



WIRING DIAGRAM

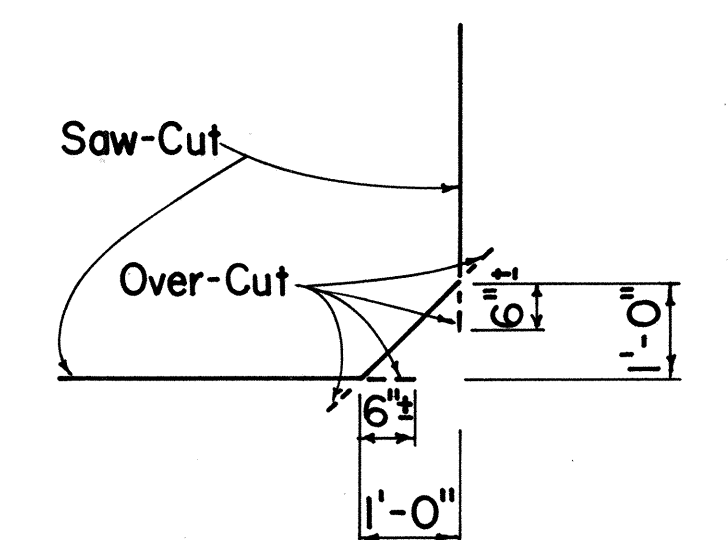


DETECTOR LOOP SAW-CUT SECTION A-A (TYPICAL)

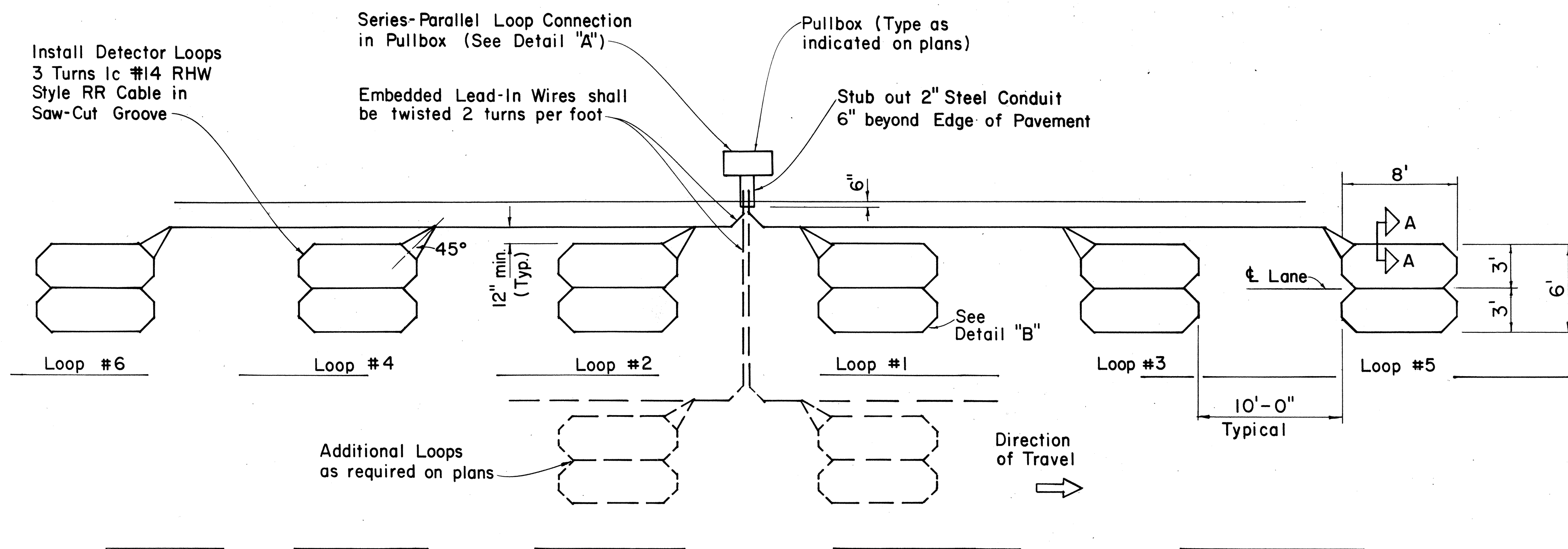


TYPICAL SERIES-PARALLEL LOOP CONNECTION

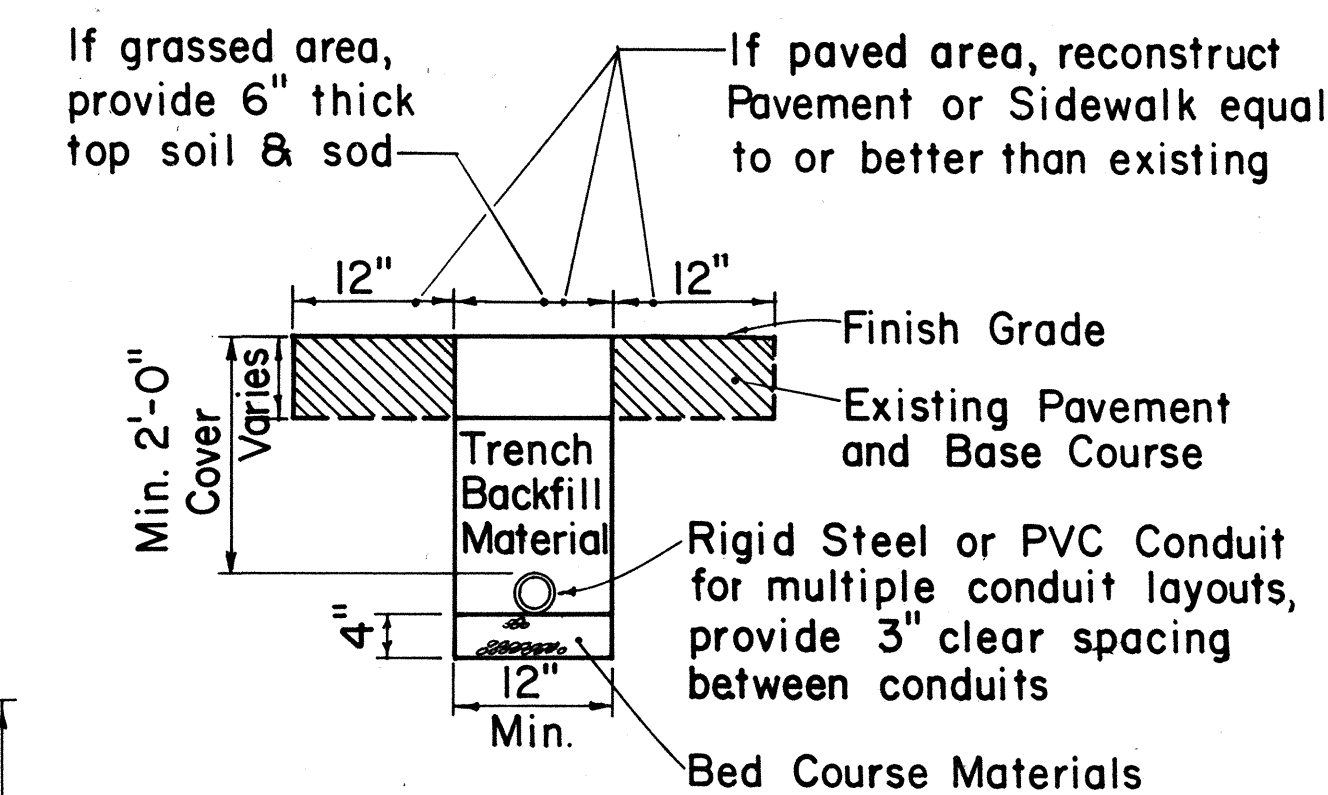
Note: Back-Fill Over-Cuts with Epoxy



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:

Shabur Dafeishi 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

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
STANDARD DETAILS
LOOP DETECTORS
Not to Scale

SHEET No. 13 OF 13 SHEETS DT 405