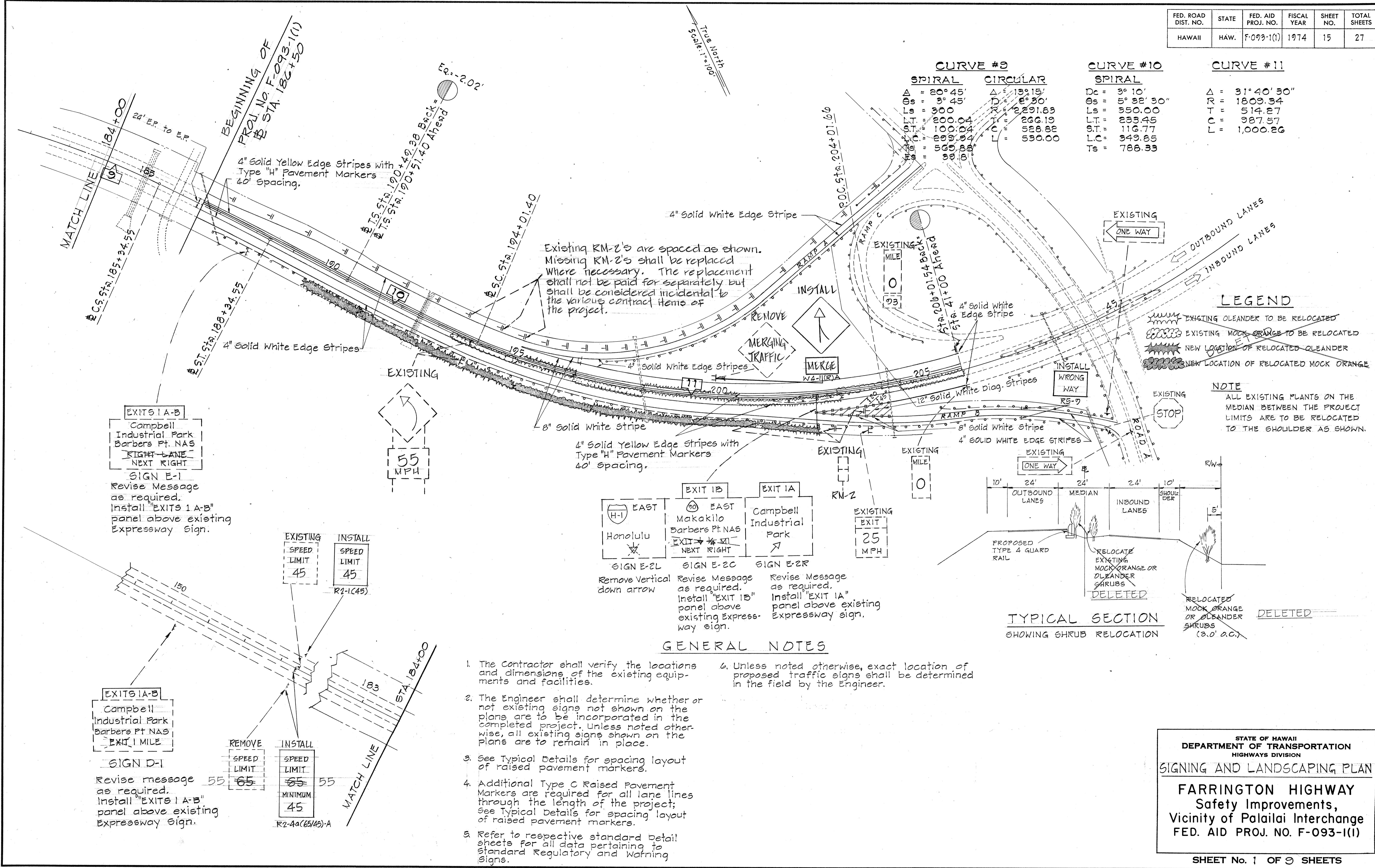


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-093-1(1)	1974	15	27



**GENERAL NOTES**

- The Contractor shall verify the locations and dimensions of the existing equipments and facilities.
- The Engineer shall determine whether or not existing signs not shown on the plans are to be incorporated in the completed project. Unless noted otherwise, all existing signs shown on the plans are to remain in place.
- See Typical Details for spacing layout of raised pavement markers.
- Additional Type C Raised Pavement Markers are required for all lane lines through the length of the project; See Typical Details for spacing layout of raised pavement markers.
- Refer to respective standard detail sheets for all data pertaining to standard Regulatory and Warning Signs.
- Unless noted otherwise, exact location of proposed traffic signs shall be determined in the field by the Engineer.

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SIGNING AND LANDSCAPING PLAN**

**FARRINGTON HIGHWAY**  
Safety Improvements,  
Vicinity of Palailai Interchange  
FED. AID PROJ. NO. F-093-1(I)

SHEET No. 1 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-093-1(1)	1974	16	27

SUMMARY OF RAISED PAVEMENT MARKERS	
QUANTITY	
TYPE C	TYPE H
76	100

SUMMARY OF PAVEMENT STRIPING	
LENGTH - LF	
YELLOW	WHITE
3920	8000

<del>SUMMARY OF PLANTS TO BE RELOCATED</del>		
<del>BOTANIC AND COMMON NAME</del>	<del>QUANTITY</del>	<del>REMARKS</del>
<del>NERIUM OLEANDER (OLEANDER)</del>	<del>260</del>	<del>REMOVED</del>
<del>MURRAYA EXOTICA (MOCK ORANGE)</del>	<del>150</del>	<del>REMOVED</del>

SUMMARY OF EXIT NUMBER SIGN PANELS TO BE INSTALLED ABOVE EXPRESSWAY AND DESTINATION SIGNS		
INSTALLED ABOVE SIGN NO.	MESSAGE	AREA (SQ FT)
E-1	EXITS 1 A-B	20
E-2c	EXIT 1 B	16
E-2R	EXIT 1 A	16
D-1	EXITS 1 A-B	20
TOTAL		72

SUMMARY OF EXPRESSWAY SIGN PANELS REQUIRING MESSAGE REVISIONS AS SHOWN ON THE PANEL LAYOUT	
SIGN NO.	MESSAGE
E-1	Campbell Industrial Park, Barbers Pt. NAS, NEXT RIGHT
E-2c	20 EAST, Makakilo Barbers Pt. NAS NEXT RIGHT
E-2L	41 EAST, Honolulu

SUMMARY OF DESTINATION SIGN PANELS REQUIRING MESSAGE REVISION AS SHOWN ON THE PANEL LAYOUT	
SIGN NO.	MESSAGE
D-1	Campbell Industrial Park, Barbers Pt NAS, 1 MILE

SUMMARY OF REGULATORY & WARNING SIGNS TO BE INSTALLED			
TYPE	MESSAGE	QUANTITY	
		W/ POST	W/O POST
W4-1(R)-A	MERGE		1
R3-7	WRONG WAY	2	
R2-1(45)	SPEED LIMIT 45	1	
R2-4a(65/45)-A	SPEED LIMIT 65, MINIMUM 45	2	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

SUMMARY OF SIGNS  
AND LANDSCAPING

SAFETY IMPROVEMENTS  
VICINITY OF PALALAI INTERCHANGE  
FED. AID PROJ. NO. F-093-1(1)

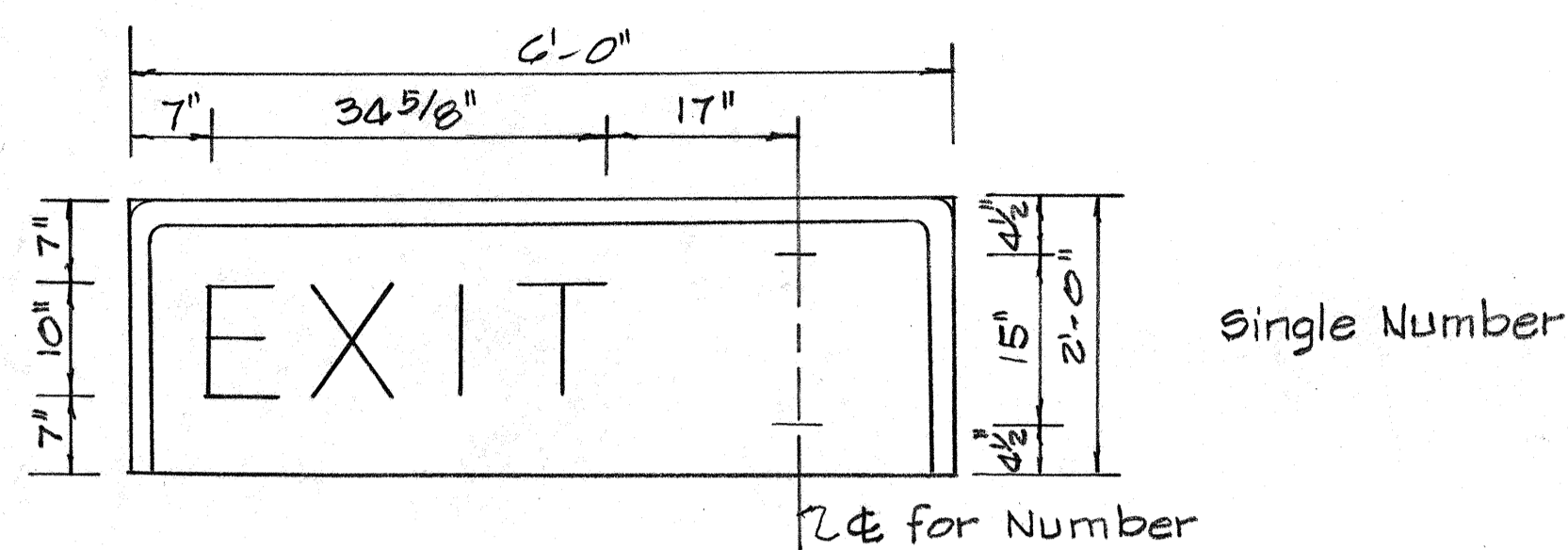
SHEET No. 2 OF 3 SHEETS

16

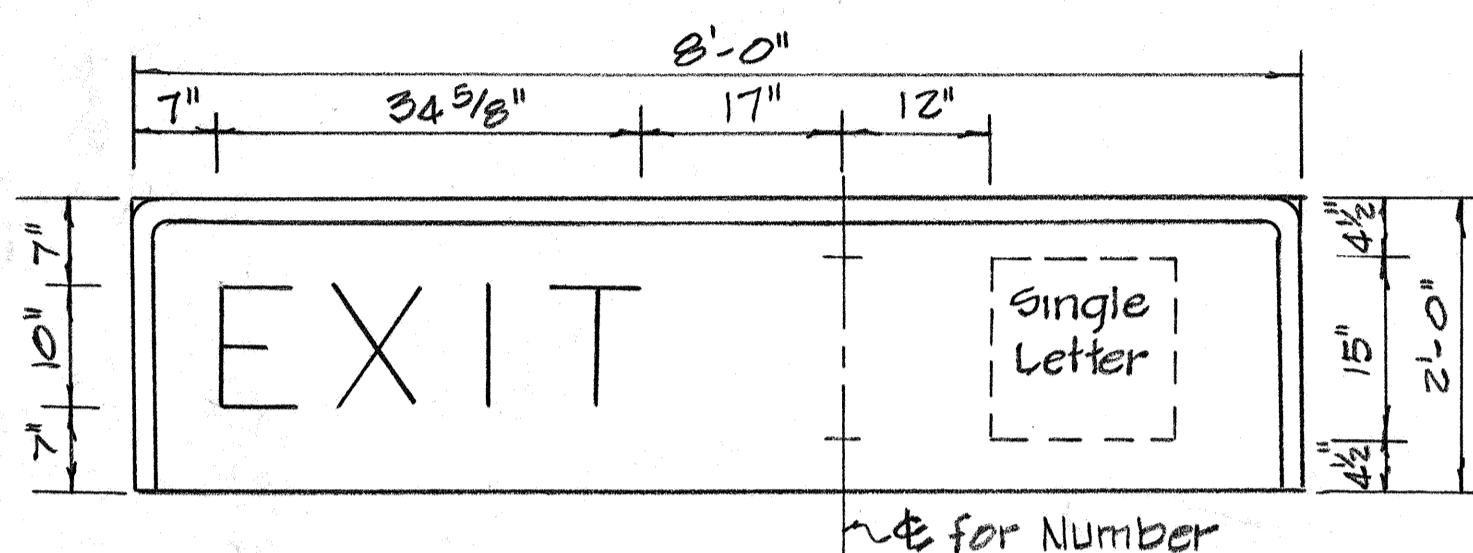
SURVEY PLOTTED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 DESIGNED BY \_\_\_\_\_  
 QUANTITIES BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 ORIGINAL PLAN NO. \_\_\_\_\_

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-093-1(1)	1974	17	27

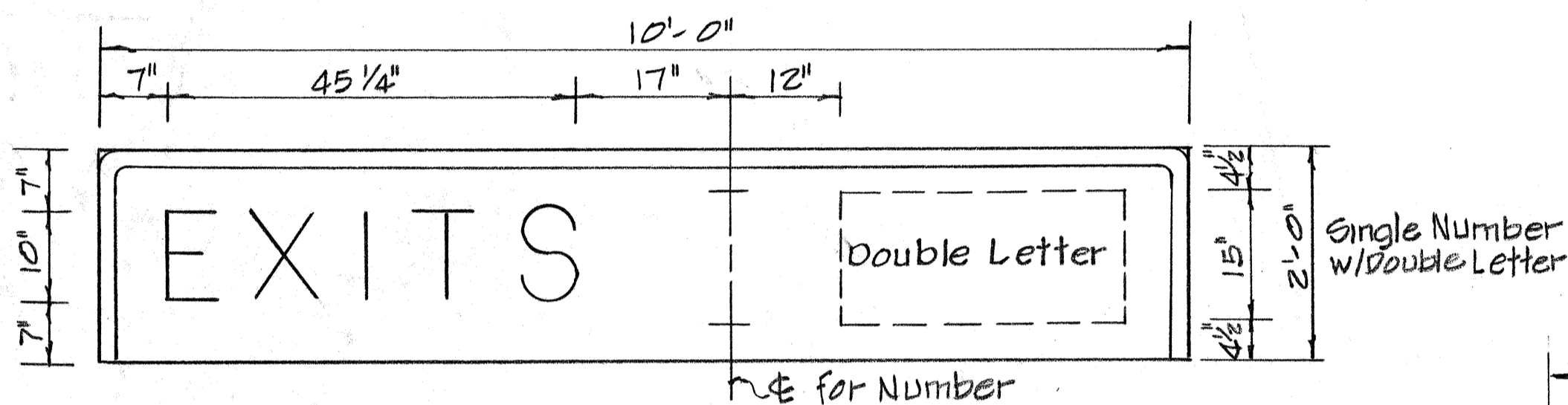
**EXIT NUMBER PANELS**



Single Number



Single Number w/Single Letter

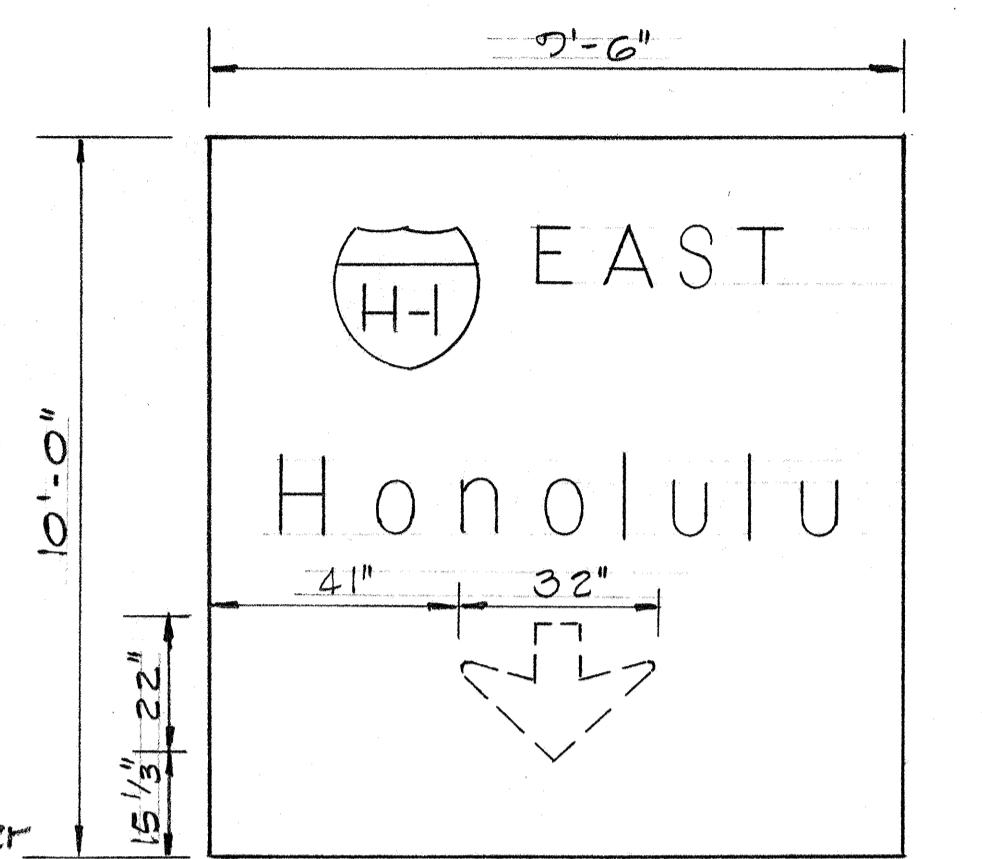


Single Number w/Double Letter

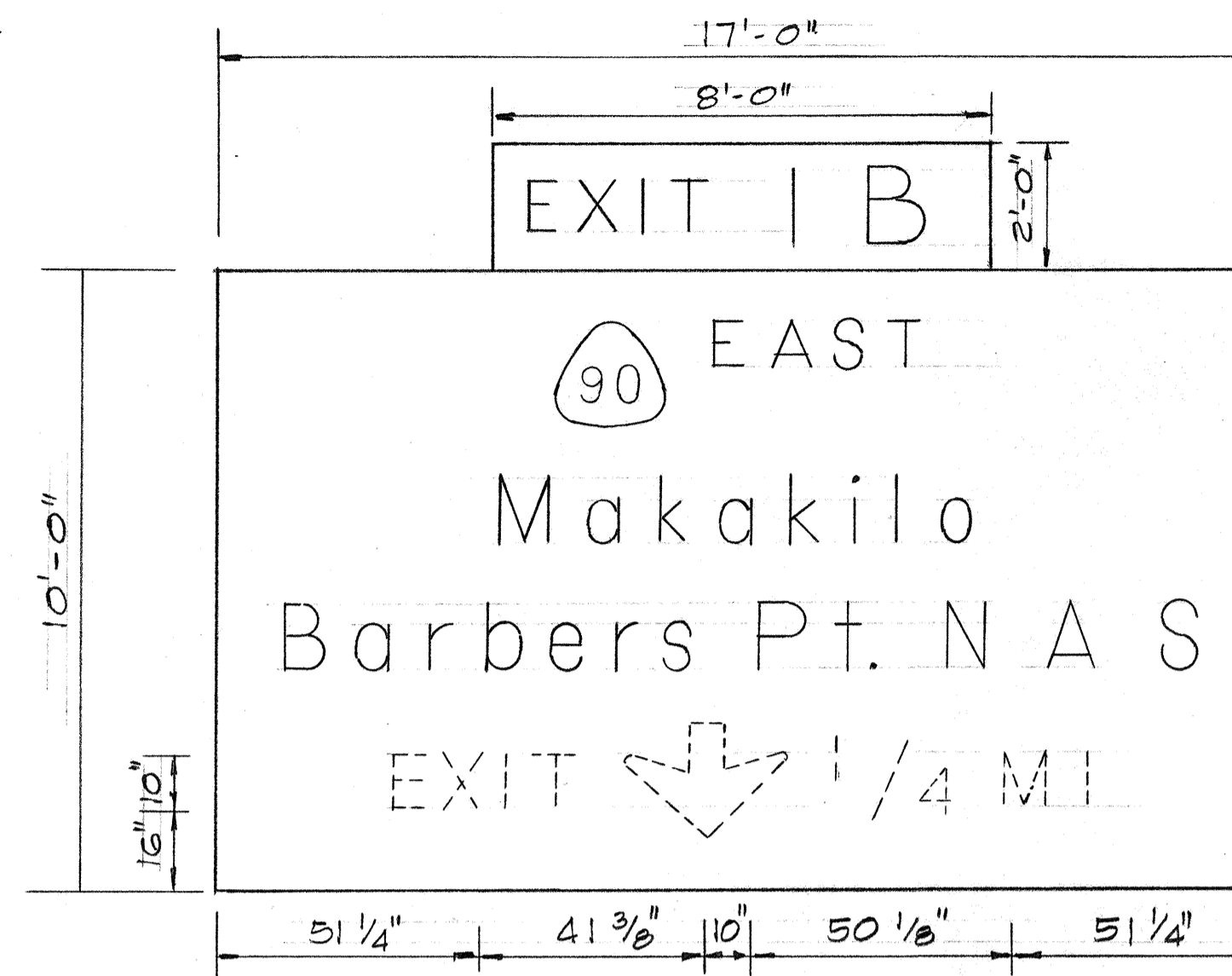
Exit Number Panels shall conform to all plans and specifications for Expressway Sign Panels.

**GENERAL NOTES**

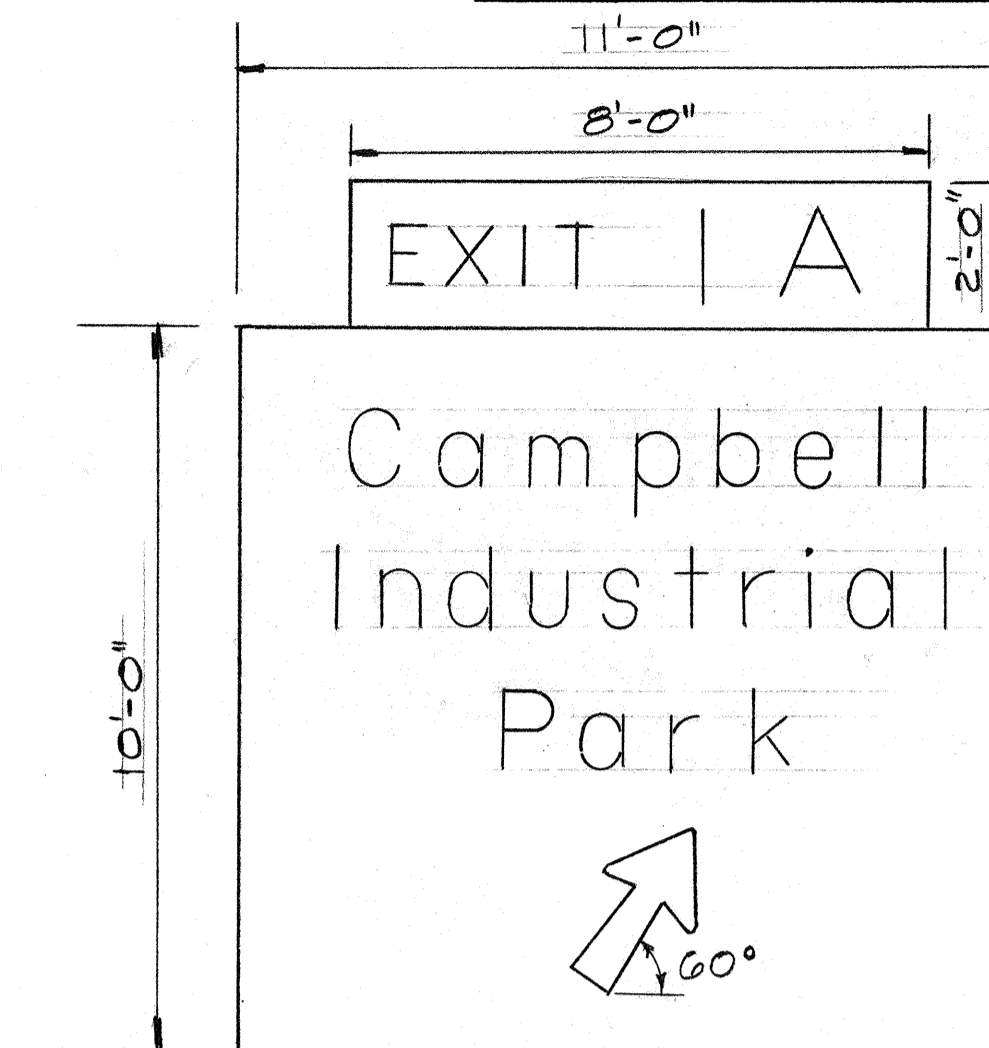
1. Sign message shall be lettered in uppercase according to Standard Alphabets for Highway Signs, Bureau of Public Roads, 1966, and lower case according to Standard Lower Case Alphabet for Highway Signs, Bureau of Public Roads, 1962. Use Series "E" modified letters unless otherwise noted.
2. Arrows, borders, and route markers shall conform with details as shown on plans.
3. Destination (D) Signs shall have white reflective sheeting on aluminum cutout on green reflective sheeting background.



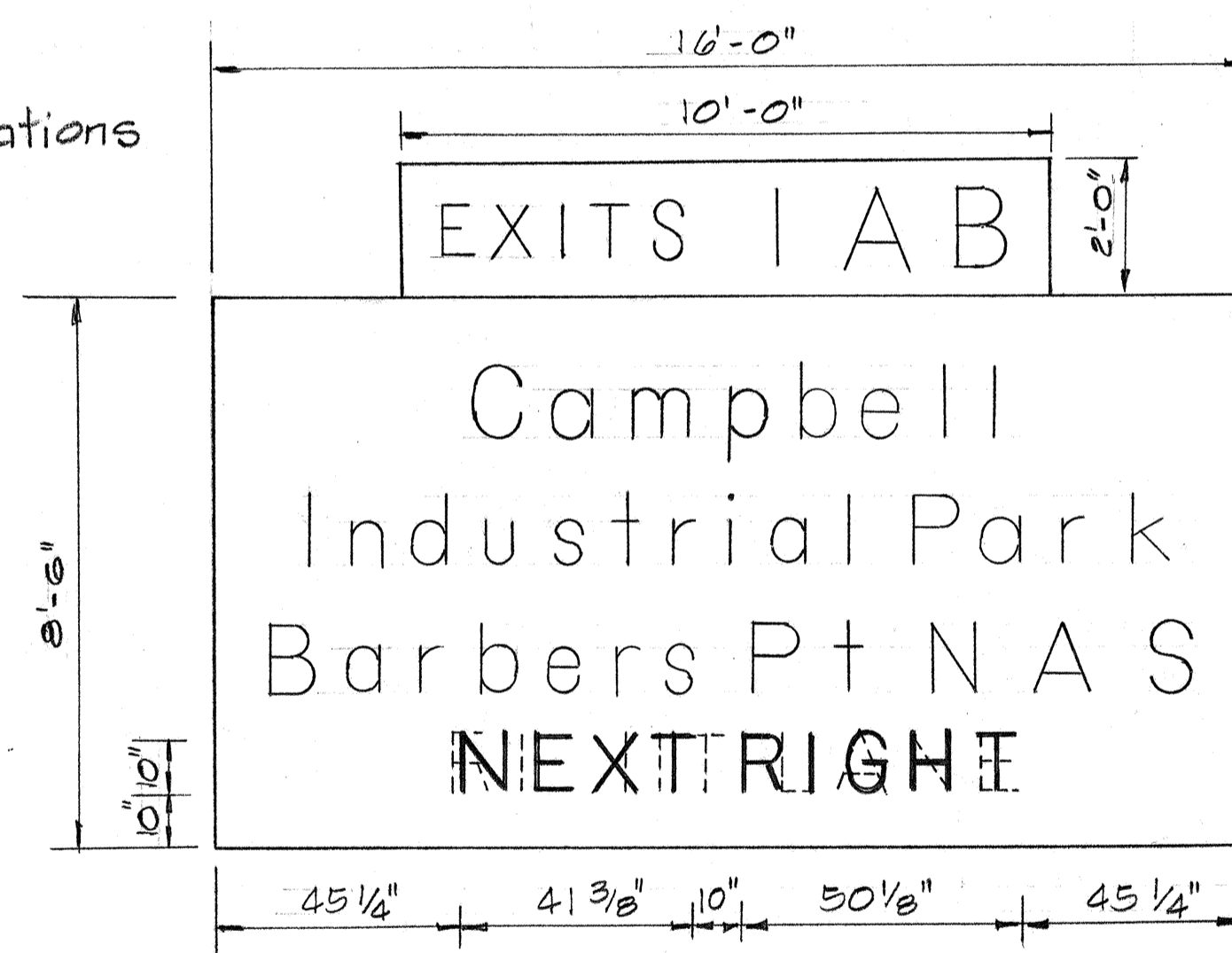
EXISTING SIGN E-2L  
REMOVE VERTICAL DOWN ARROW



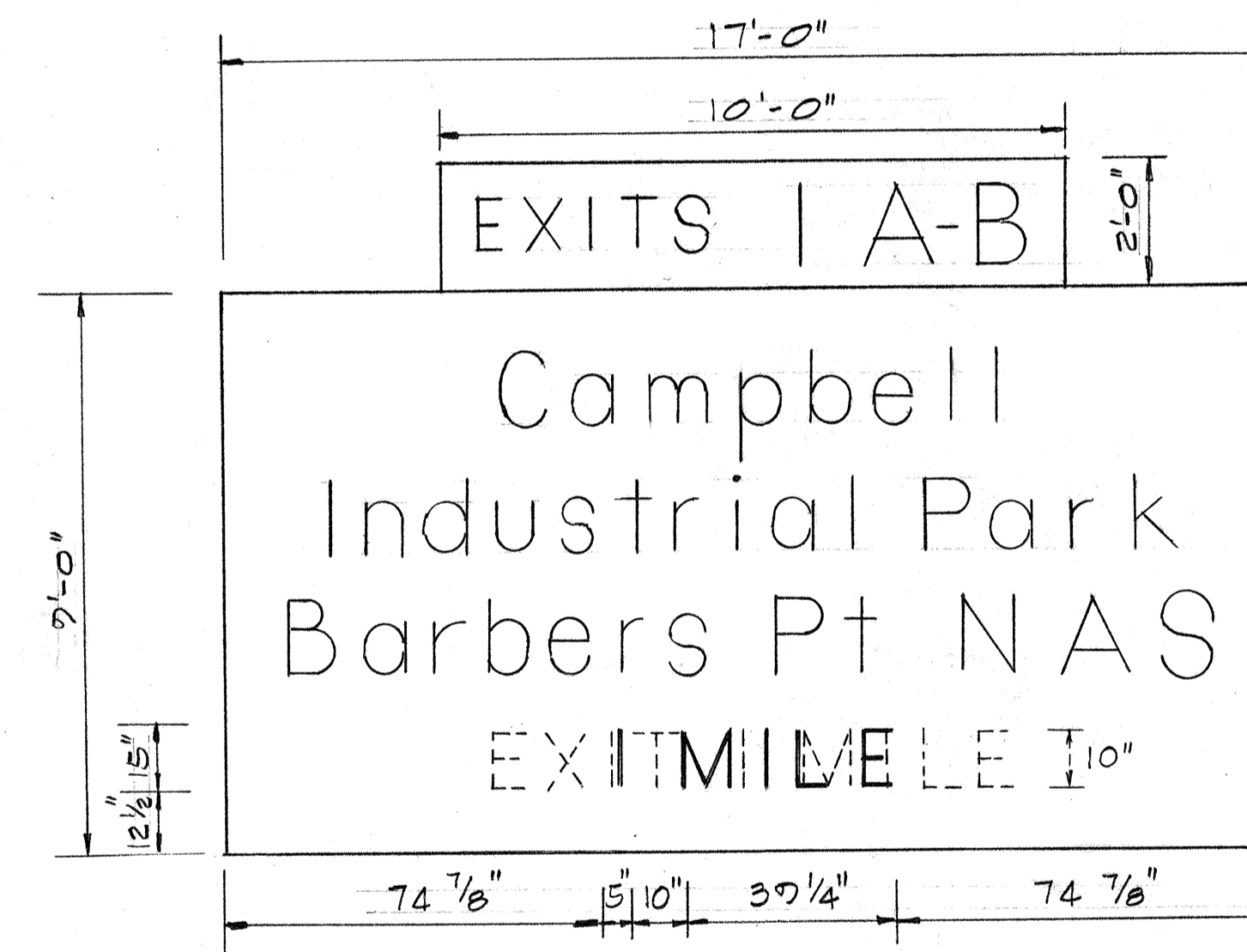
EXISTING SIGN E-2C  
REMOVE "EXIT ↓ 1/4 MI" AND  
INSTALL "NEXT RIGHT"  
INSTALL "EXIT 1B" SIGN PANEL



EXISTING SIGN E-2R  
INSTALL "EXIT 1A" SIGN PANEL



EXISTING SIGN E-1  
REMOVE "RIGHT LANE" AND  
INSTALL "NEXT RIGHT" AS SHOWN  
INSTALL "EXITS 1A-B" SIGN PANEL



EXISTING SIGN D-1  
REMOVE "EXIT 1 MILE" AND  
INSTALL "1 MILE"  
INSTALL "EXITS 1A-B" SIGN PANEL

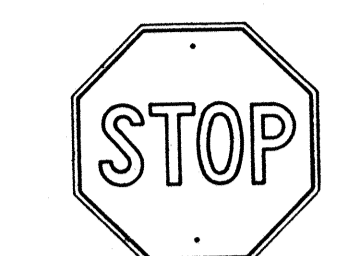
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

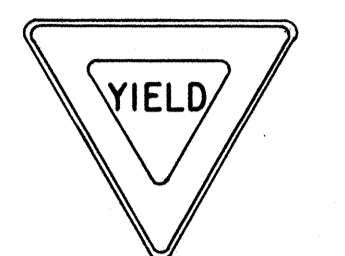
**PANEL LAYOUT**

SAFETY IMPROVEMENTS  
Vicinity of Palailai Interchange  
FED. AID PROJ. NO. F-093-1(1)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-093-1(1)	1974	18	27



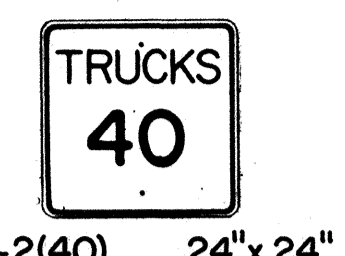
R1-1 30" x 30"  
R1-1-A 36" x 36"  
4-WAY  
R1-3 12" x 6"  
R1-3-A 18" x 9"



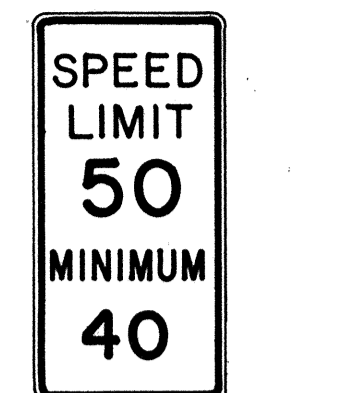
R1-2 36" x 36" x 36"  
R1-2-A 48" x 48" x 48"



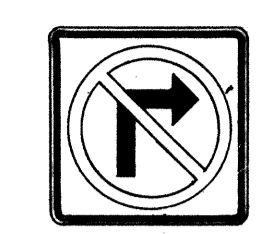
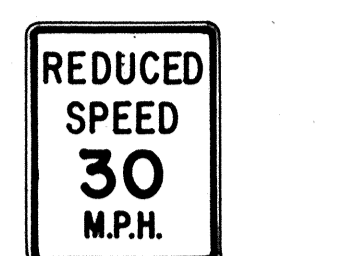
R2-1(50) 24" x 30"  
R2-1(50)-A 48" x 60"



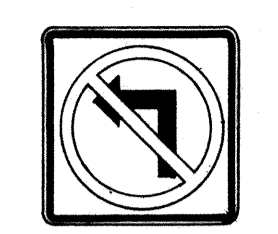
R2-2(40) 24" x 24"  
R2-2(40)-A 48" x 48"



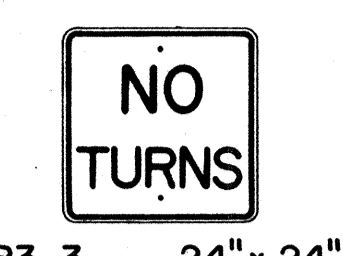
R2-4a(50/40) 24" x 48"  
R2-4a(50/40)-A 48" x 96"  
R2-5b(30) 24" x 30"  
R2-5b(30)-A 48" x 60"



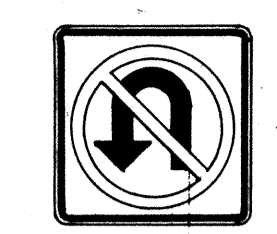
R3-1 24" x 24"  
24" x 18"  
R3-1-A 48" x 48"  
48" x 36"



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



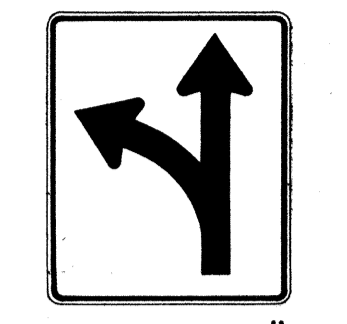
R3-3 24" x 24"  
R3-3-A 48" x 48"



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



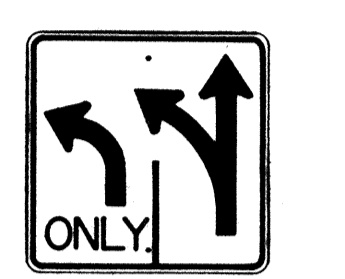
R3-5(L) 30" x 36"  
R3-5(L)-A 48" x 60"



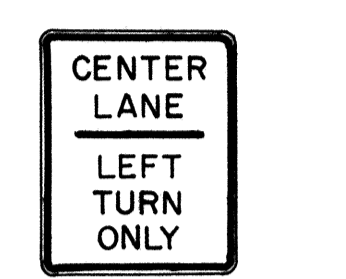
R3-6(L) 30" x 36"  
R3-6(L)-A 48" x 60"



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"



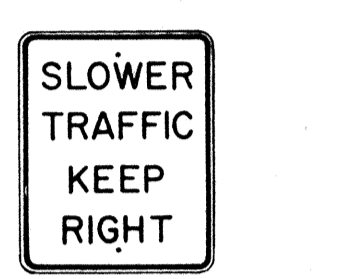
R3-9 24" x 30"



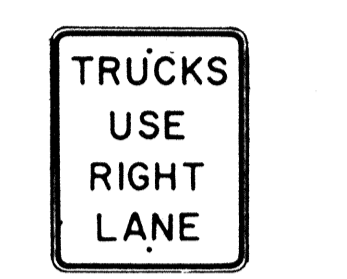
R4-1 24" x 30"



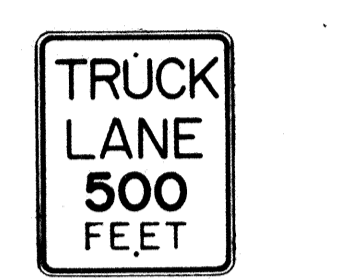
R4-2 24" x 30"



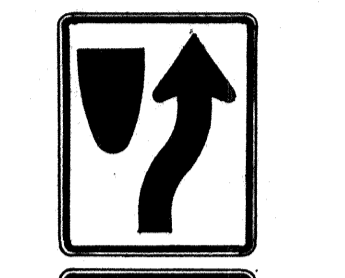
R4-3 24" x 30"  
R4-3-A 48" x 60"



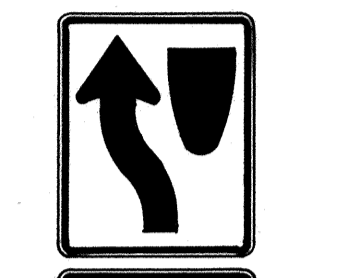
R4-5 24" x 30"



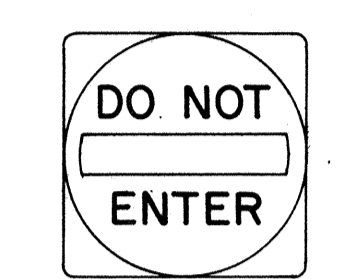
R4-6(500) 24" x 30"



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



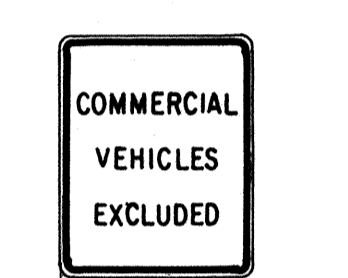
R4-8 24" x 30"  
24" x 18"



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"



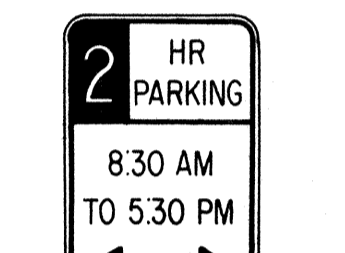
R7-1 12" x 18"  
R7-1-A 24" x 30"



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"



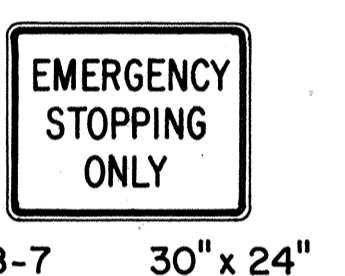
R8-4 30" x 24"  
R8-4-A 48" x 36"



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"



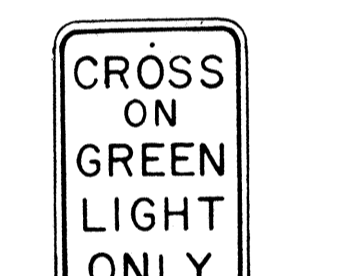
R9-2 12" x 18"



R9-3 12" x 18"



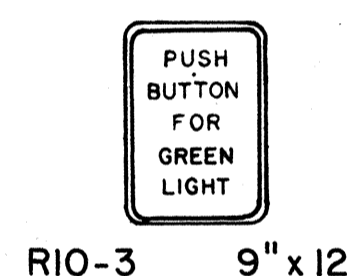
R9-4 18" x 24"



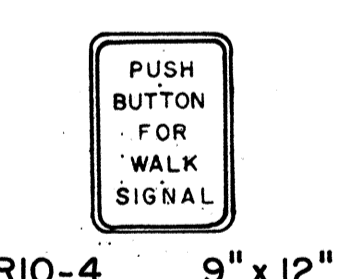
R10-1 12" x 18"



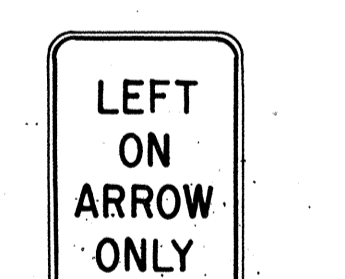
R10-2 12" x 18"



R10-3 9" x 12"



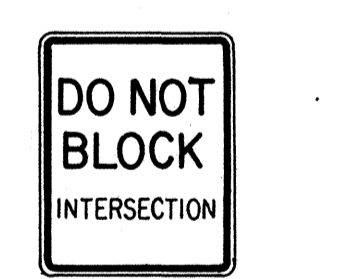
R10-4 9" x 12"



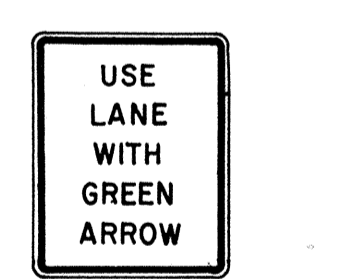
R10-5 24" x 30"



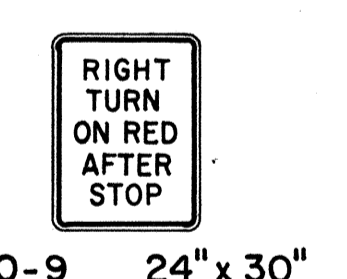
R10-6 24" x 36"



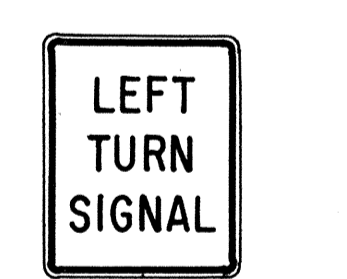
R10-7 24" x 30"



R10-8 24" x 30"



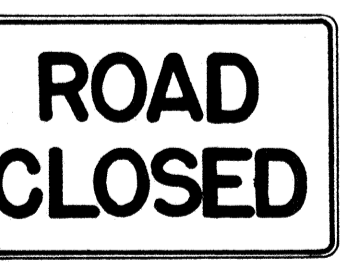
R10-9 24" x 30"



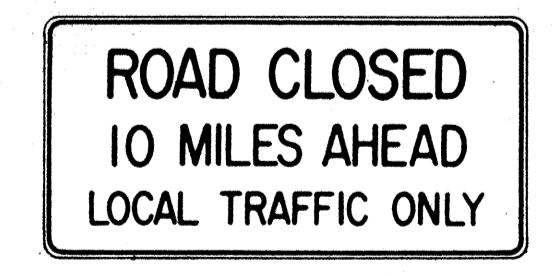
R10-10 24" x 30"



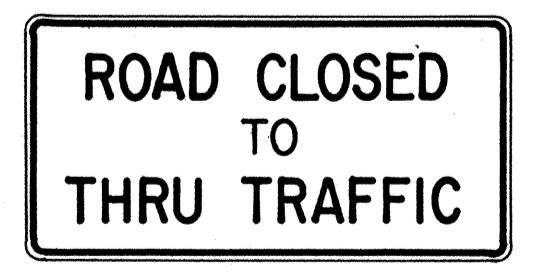
R11-1 24" x 30"



R11-2 48" x 30"



R11-3(10) 60" x 30"



R11-4 60" x 30"



R12-1(10) 24" x 30"

**GENERAL NOTES**

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

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

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

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H.T.	3/20/72

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

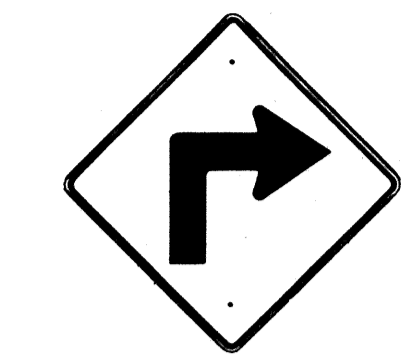
**STANDARD DETAILS**  
**REGULATORY SIGNS**

NOT TO SCALE

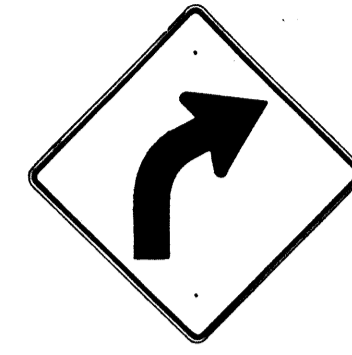
SHEET No. 4 OF 9 SHEETS DT 101

DATE: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
ORIGINAL FILE NO. \_\_\_\_\_

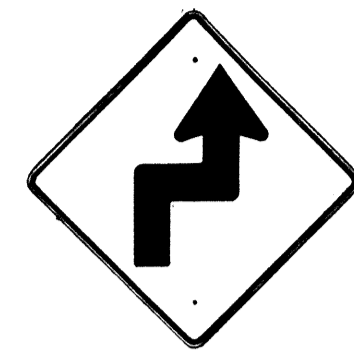
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII *	HAW.	F-093-1(1)	1974	19	27



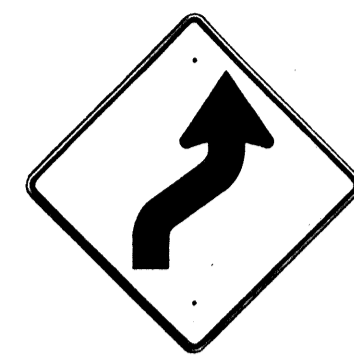
W1-1(R) 30"x30"  
W1-1(R)-A 48"x48"



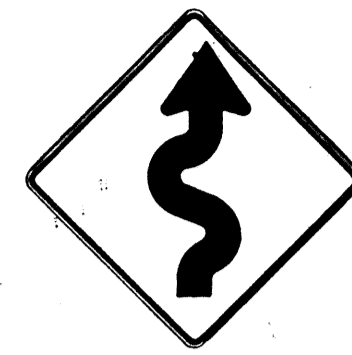
W1-2(R) 30"x30"  
W1-2(R)-A 48"x48"



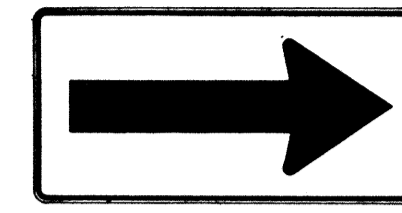
W1-3(R) 30"x30"  
W1-3(R)-A 48"x48"



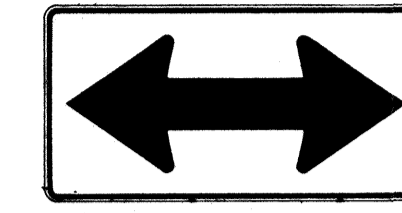
W1-4(R) 30"x30"  
W1-4(R)-A 48"x48"



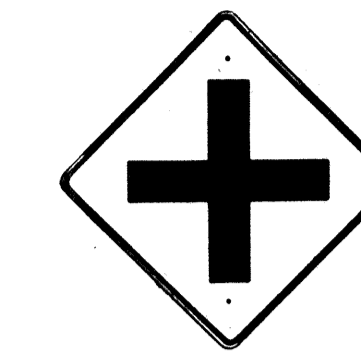
W1-5(R) 30"x30"  
W1-5(R)-A 48"x48"



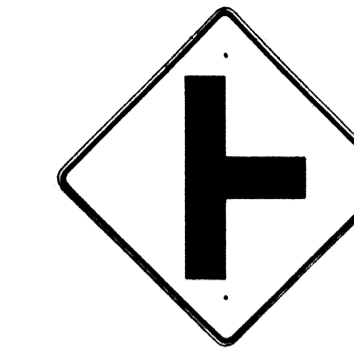
W1-6 48"x24"



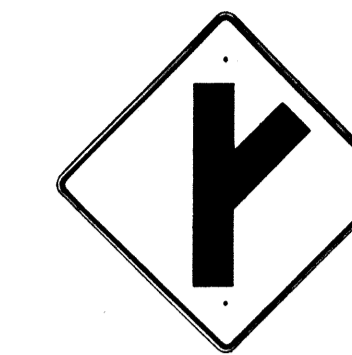
W1-7 48"x24"



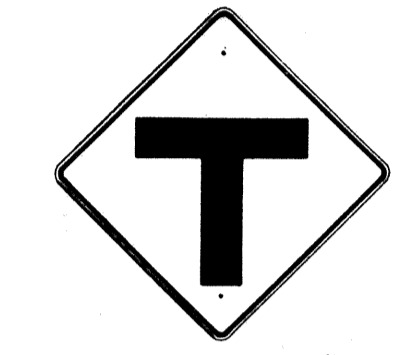
W2-1 30"x30"  
W2-1-A 48"x48"



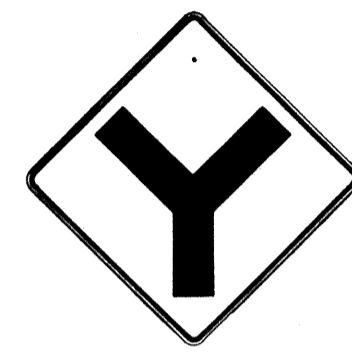
W2-2 30"x30"  
W2-2-A 48"x48"



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



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



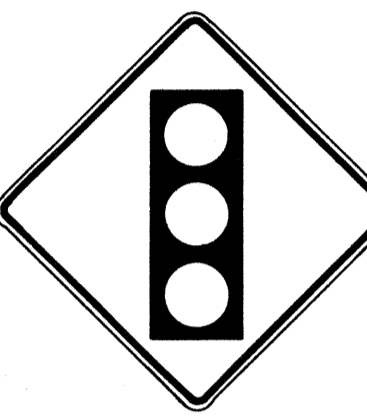
W2-5 30"x30"  
W2-5-A 48"x48"



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



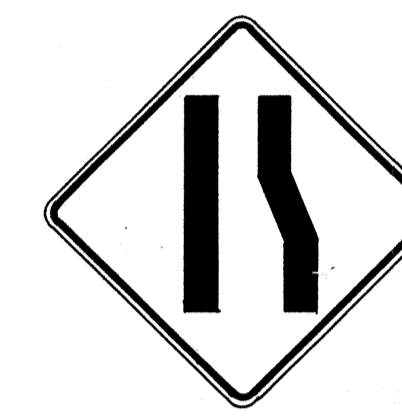
W3-2 30"x30"  
W3-2-A 36"x36"



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"



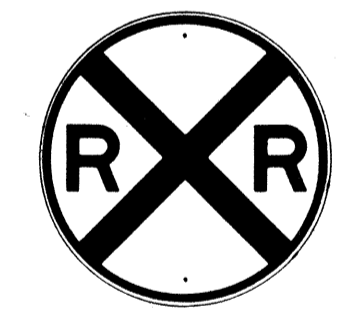
W8-5 30"x30"  
24"x18"  
W8-5-A 36"x36"  
24"x18"



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"



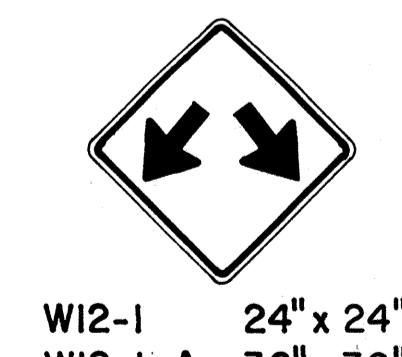
W11-2 30"x30"  
24"x18"  
W11-2-A 36"x36"  
24"x18"



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



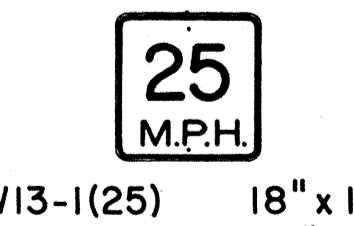
W11-5 30"x30"  
24"x18"  
W11-5-A 36"x36"  
24"x18"



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



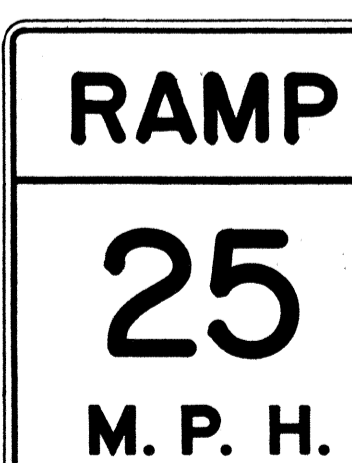
W12-2(12'-6") 36"x36"  
24"x18"



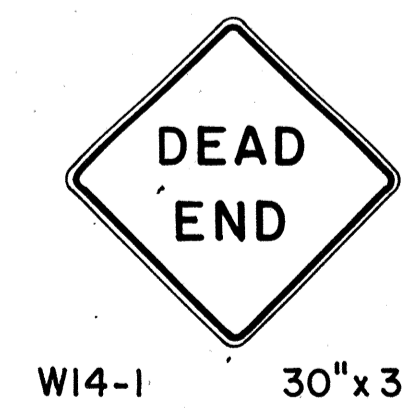
W13-1(25) 18"x18"  
W13-1(25)-A 24"x24"



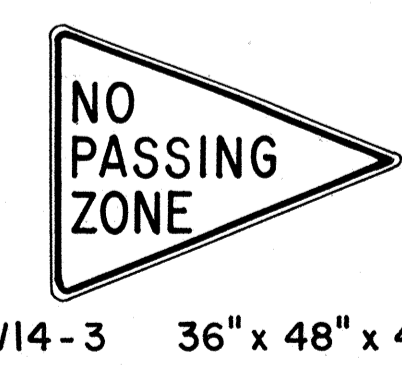
W13-2(25) 48"x60"



W13-3(25) 48"x60"



W14-1 30"x30"



W14-3 36"x48"x48"

### GENERAL NOTES

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

2. All warning signs shall be reflectorized unless otherwise specified.

3. All warning 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. Signs prefixed with "CW" on the plans shall indicate orange and black construction signs.

APPROVAL RECOMMENDED:  
*E. J. Tanaka* 3/17/12  
TRAFFIC ENGINEER DATE

APPROVED:  
*John P. ...* 3-20-12  
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 102 Approved 12-30-69	H.C.	3/20/12

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

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

NOT TO SCALE

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-093-1(1)	1974	20	27



CW20-1a 48"x 48"



CW20-2d 48"x 48"



CW20-3b 48"x 48"



CW20-4d 48"x 48"



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



CW20-7c 48"x 48"



CW21-1 30"x 30"



CW21-2 30"x 30"



CW21-3 36"x 36"



CW21-4 36"x 36"



CW21-5 30"x 30"



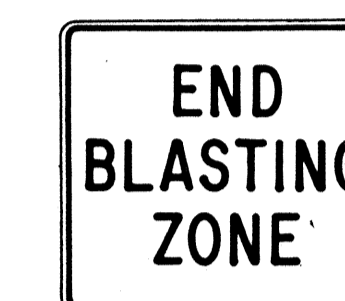
CW21-6 30"x 30"



CW22-1b 48"x 48"



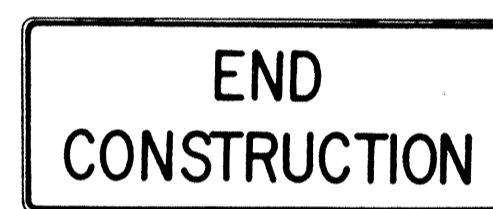
CW22-2 42"x 36"



CW22-3 42"x 36"



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



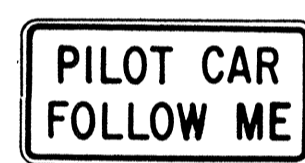
CG 20-2 60"x 24"



CM4-9(R) 30"x 24"



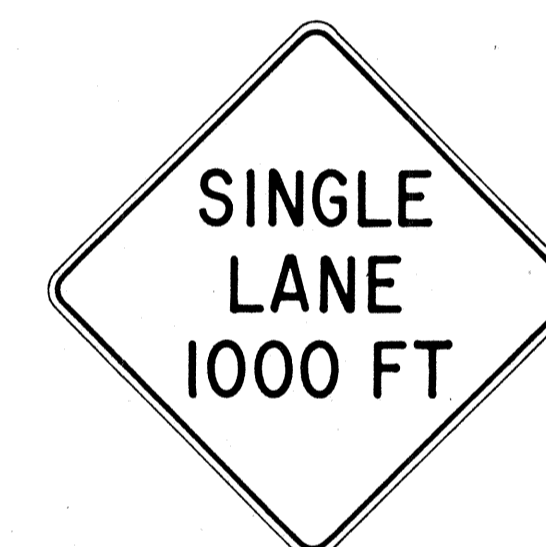
CM4-10(R) 48"x 18"



CG 20-4 36"x 18"



CW23-1 36"x 36"



CW23-2b 48"x 48"



CW23-3(R) 48"x 48"

**GENERAL NOTES**

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

APPROVAL RECOMMENDED:  
*Eishi Tanaka* 3/21/72  
TRAFFIC ENGINEER DATE

APPROVED:  
*Mulw Saleh* 3/23/72  
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	H.C.	3/23/72

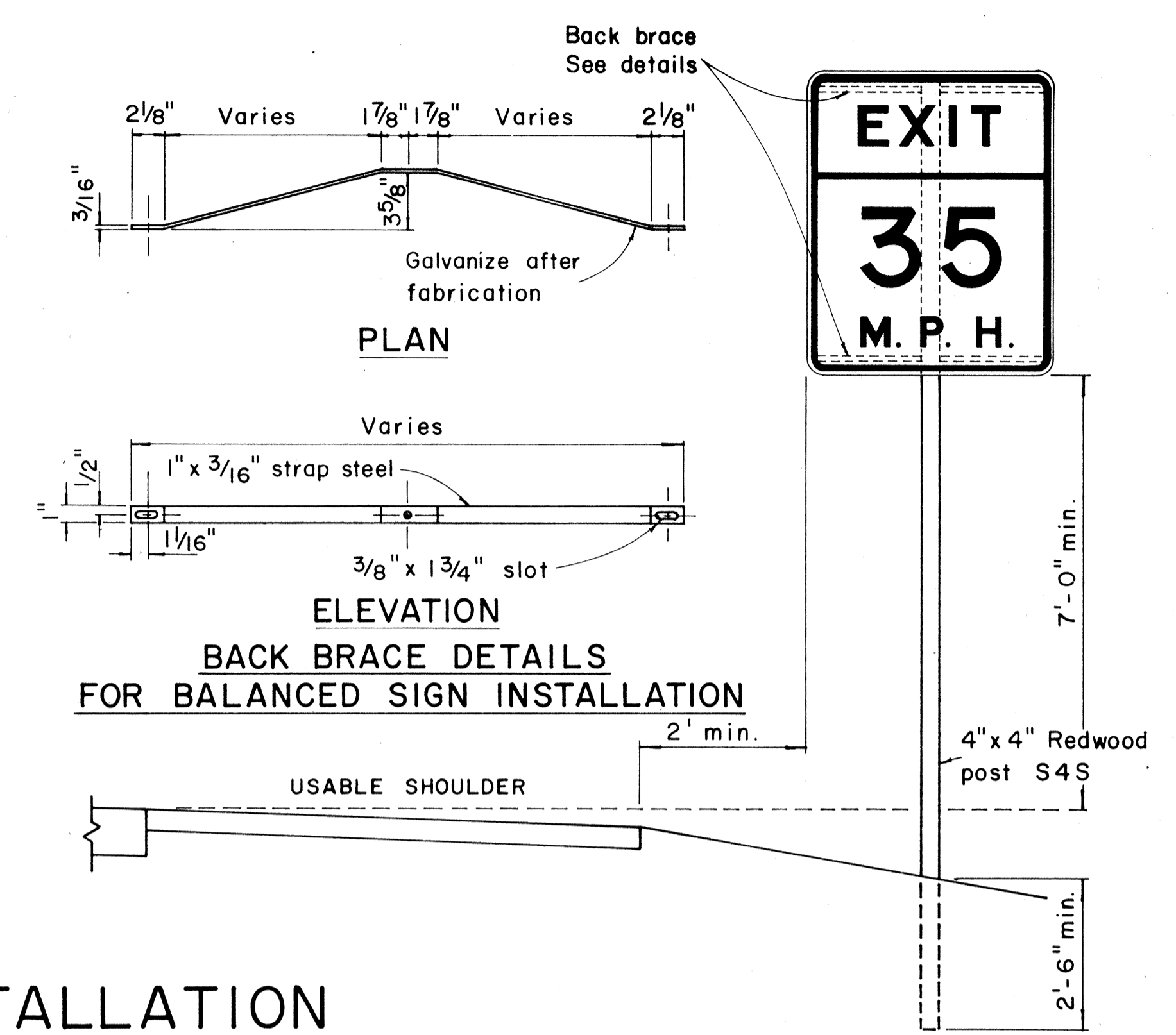
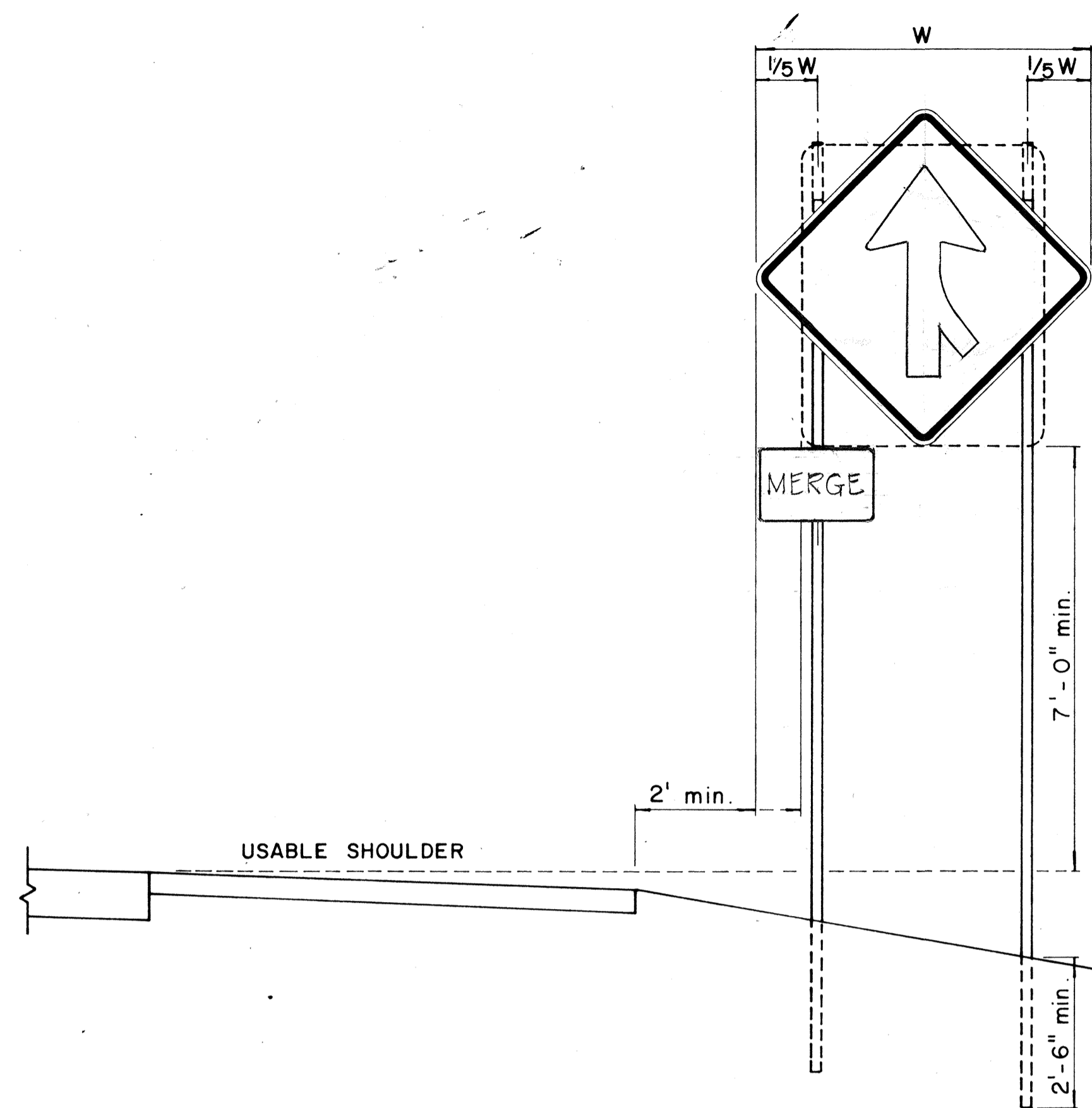
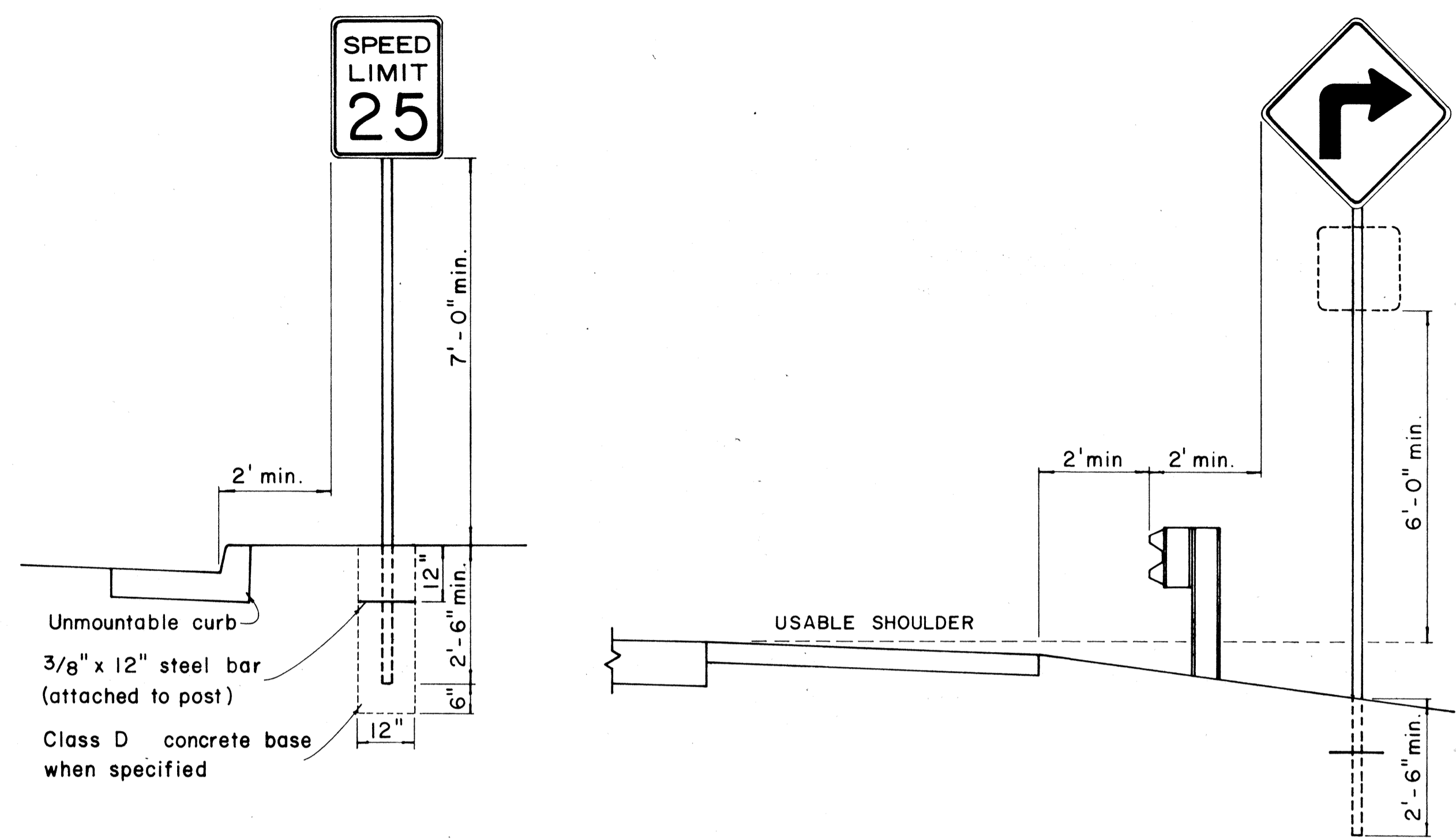
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

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

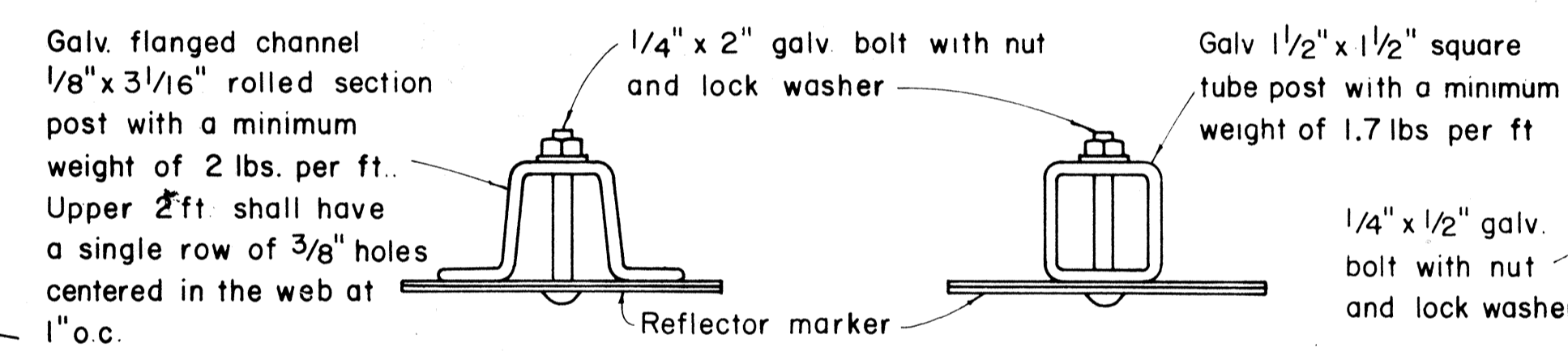
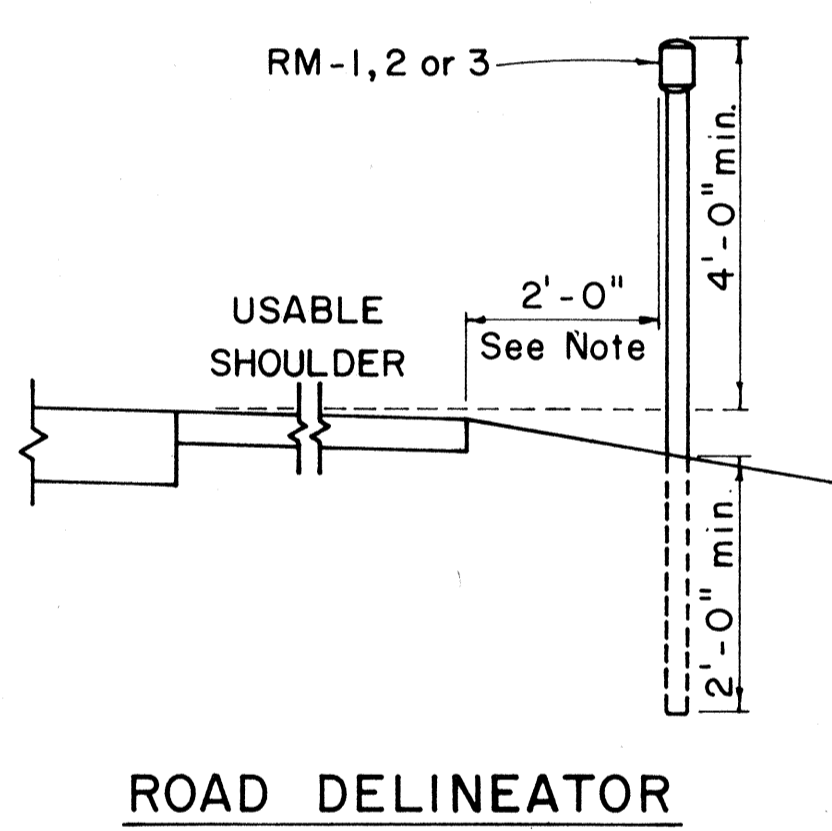
NOT TO SCALE

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

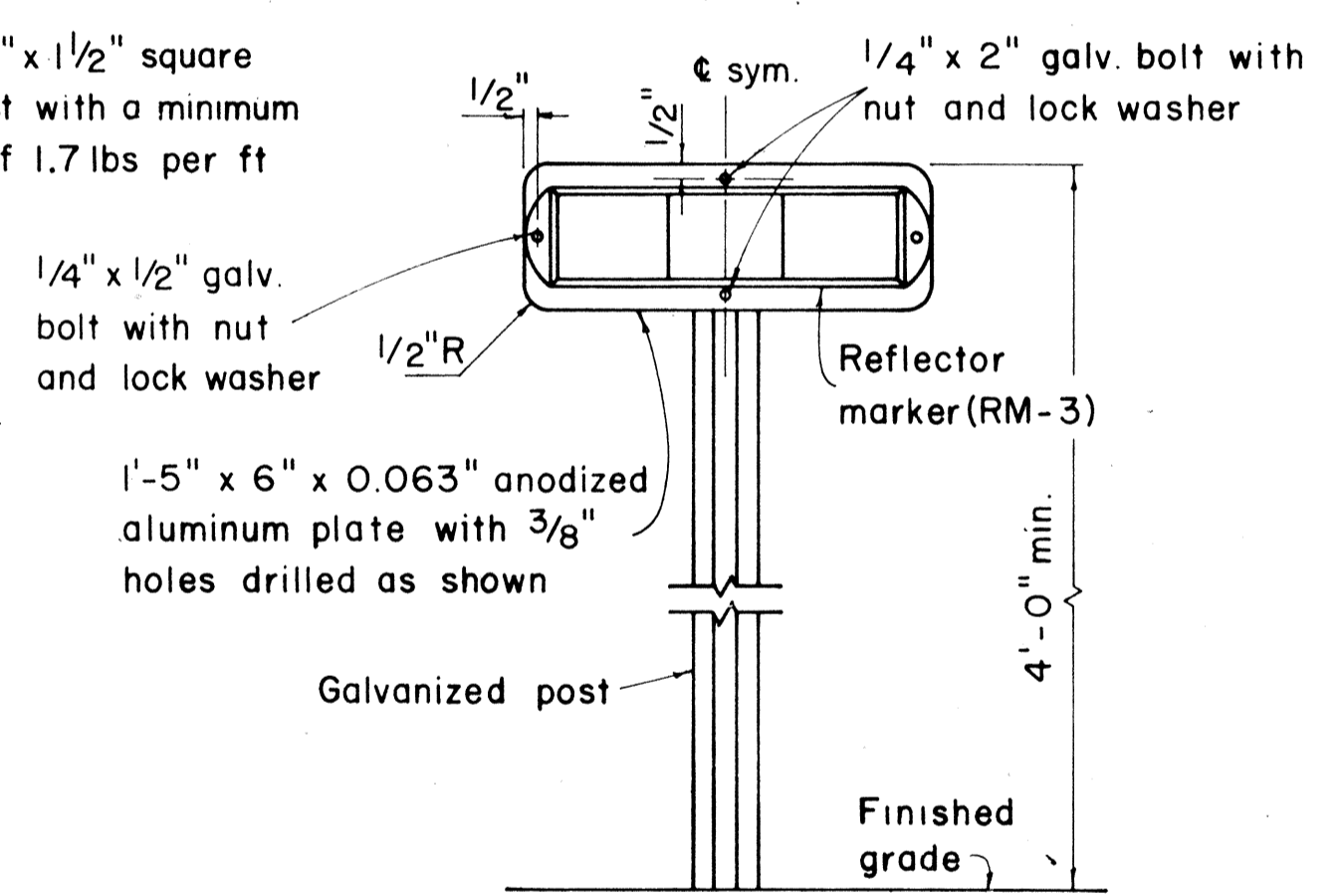
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-093-1(1)	1974	21	27



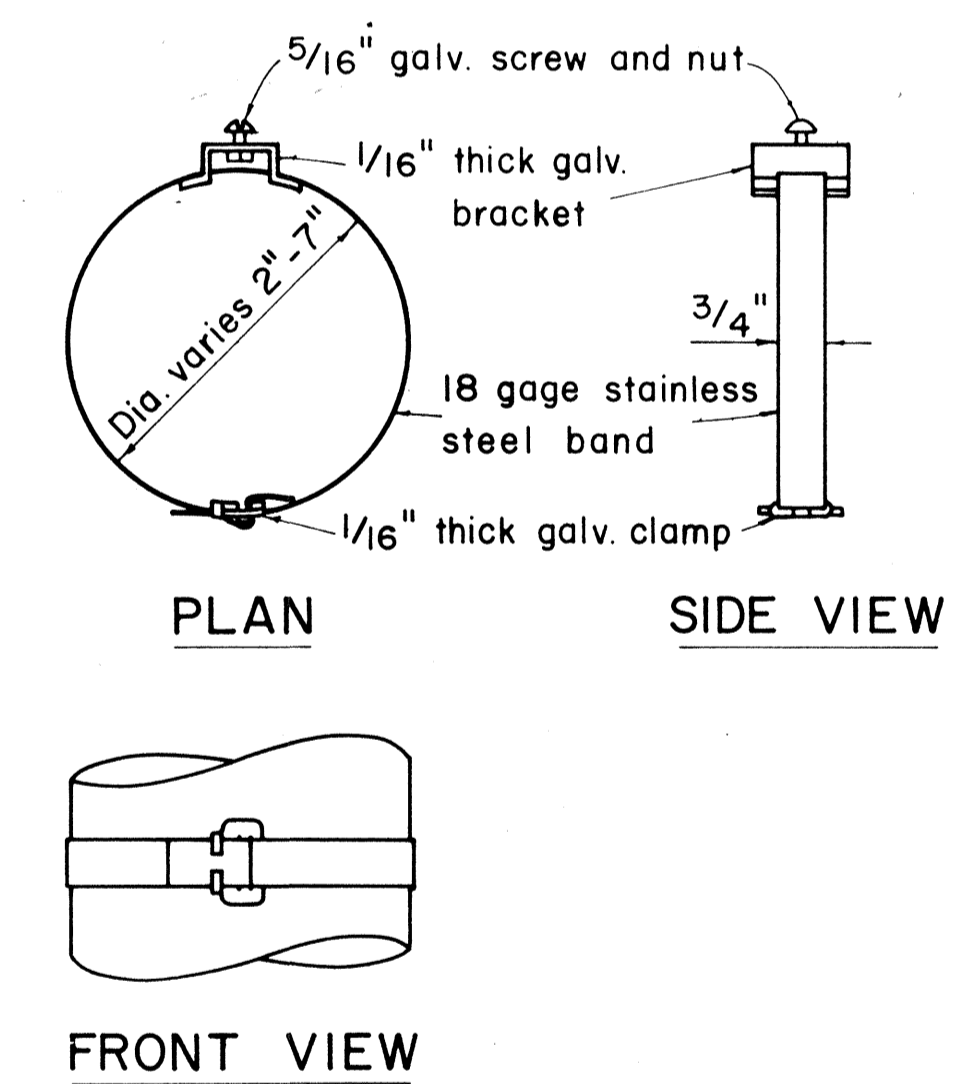
## HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATION



TYPICAL SECTION OF ROAD DELINEATOR



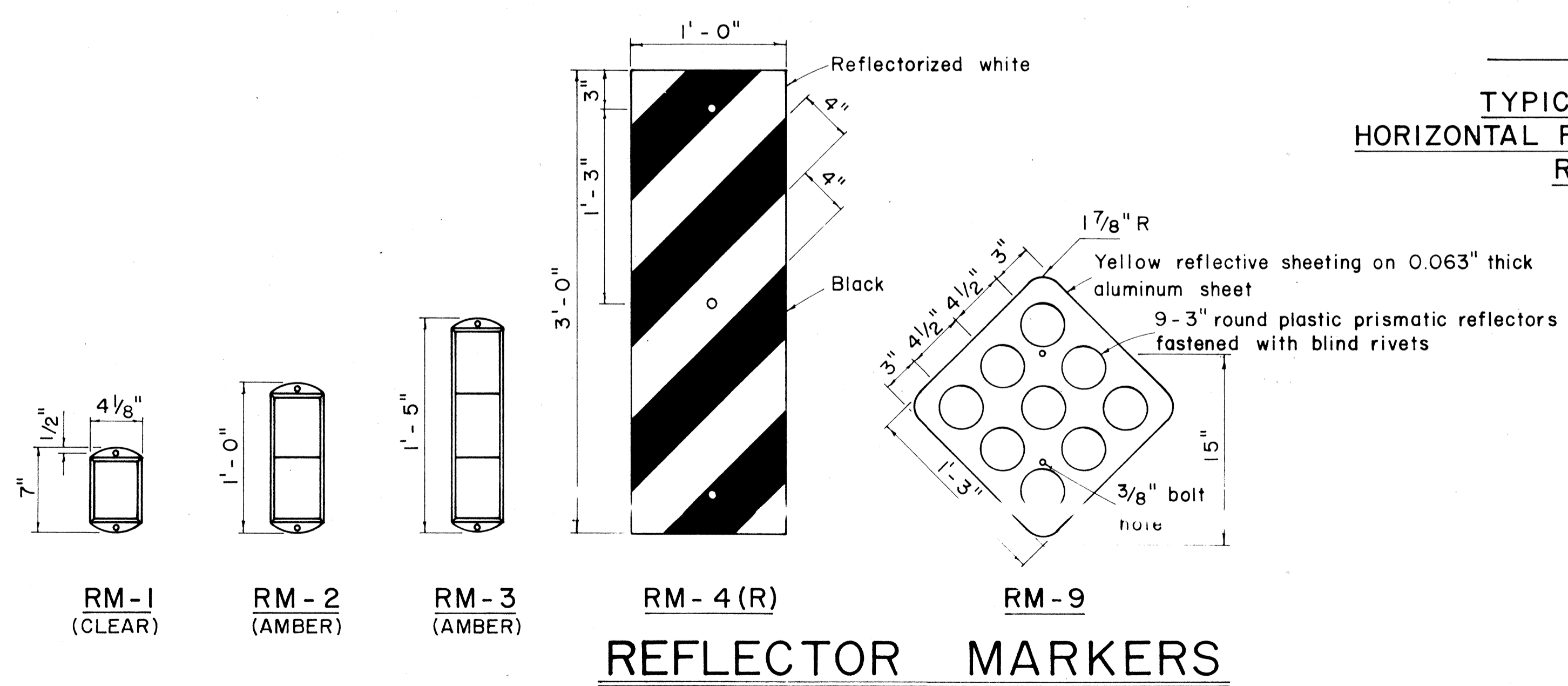
TYPICAL DETAIL HORIZONTAL REFLECTOR MARKER RM-3H



TYPICAL BAND BRACKET FOR MOUNTING TRAFFIC SIGNS

- GENERAL NOTES:**
- Sign posts shall be 2" galv. standard pipe or 2" x 2" galv. sq. tube post.
  - Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 2" galv. standard pipe or two 2" x 2" galv. sq. tube post or 4" x 4" redwood post S4S.
  - Signs shall be attached to post with 5/16" galv. bolts with nuts and 7/8" x 0.06 stainless steel washers with neoprene rubber gasket.
  - Sign posts shall extend 3 1/2" above sign where required for City and County street name signs.
  - Reflector markers RM-1, 2, 3 shall be glass sphere reflector markers with 4" x 5" reflector units (as shown) or plastic prismatic reflector markers with 3" diameter reflector units.
  - Clearance markers (RM-3, RM-4) shall be installed with the edge of the marker in line with the inner edge of the obstruction.
  - (R) or (L) indicates right or left and shall be as shown on the plans.

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



REFLECTOR MARKERS

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

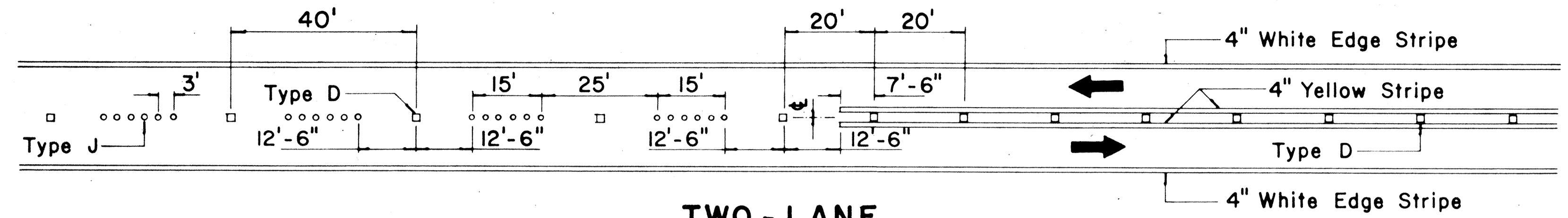
MISCELLANEOUS SIGN DETAILS

Not to scale March, 1968

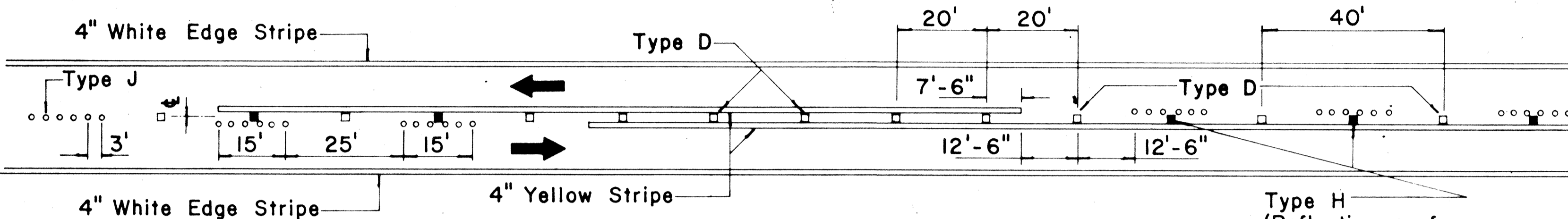
SHEET No. 7 OF 9 SHEETS



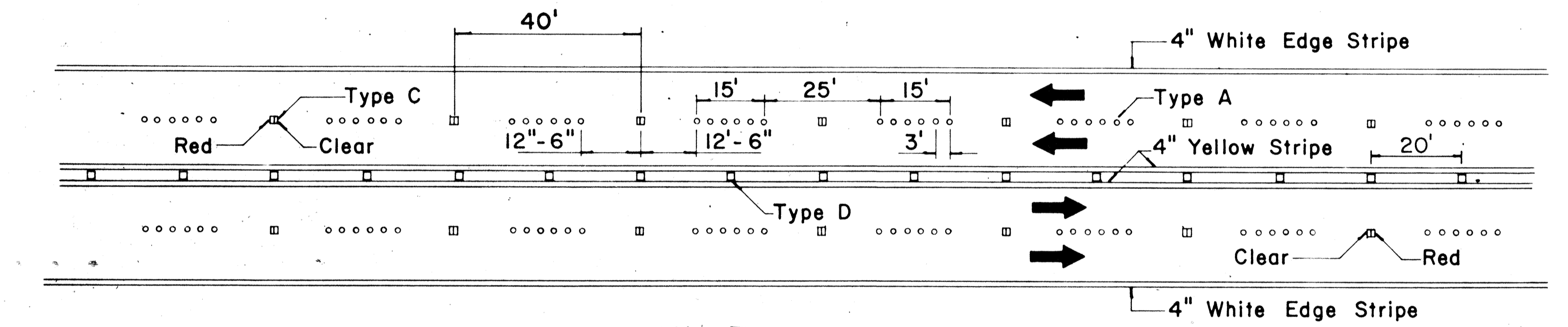
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-093-1(1)	1974	23	27



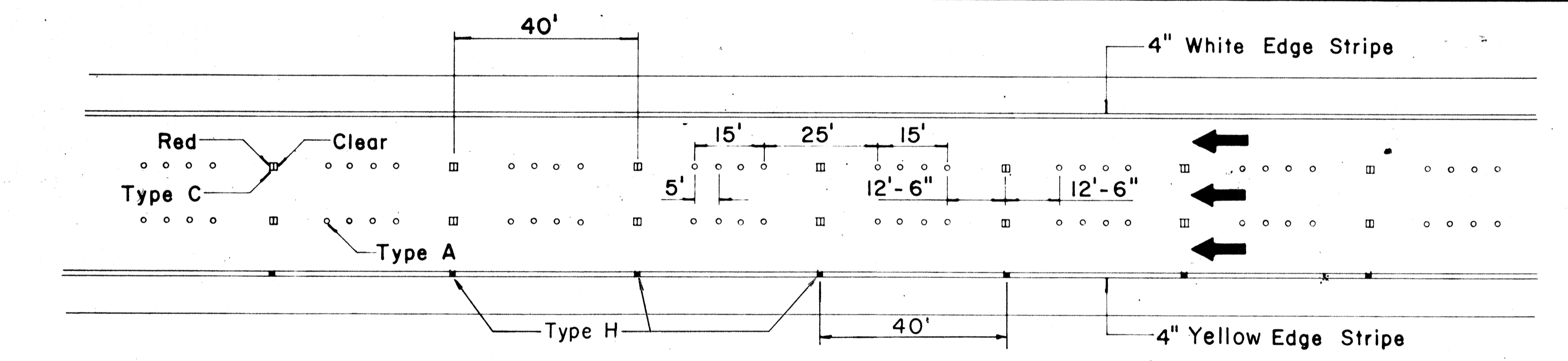
**TWO-LANE  
PASSING PERMITTED AND PASSING PROHIBITED**



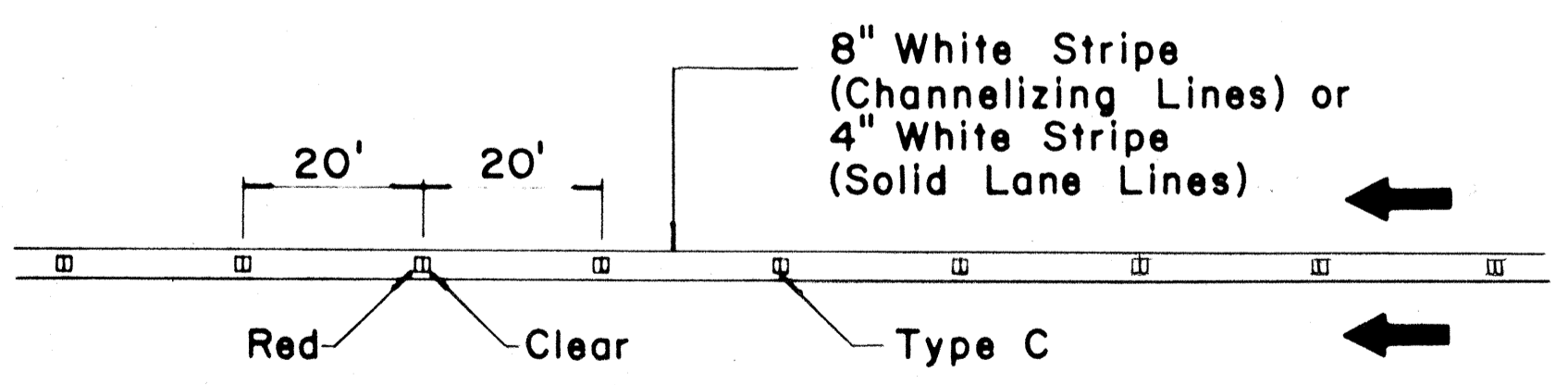
**TWO-LANE  
PASSING PROHIBITED ZONES**



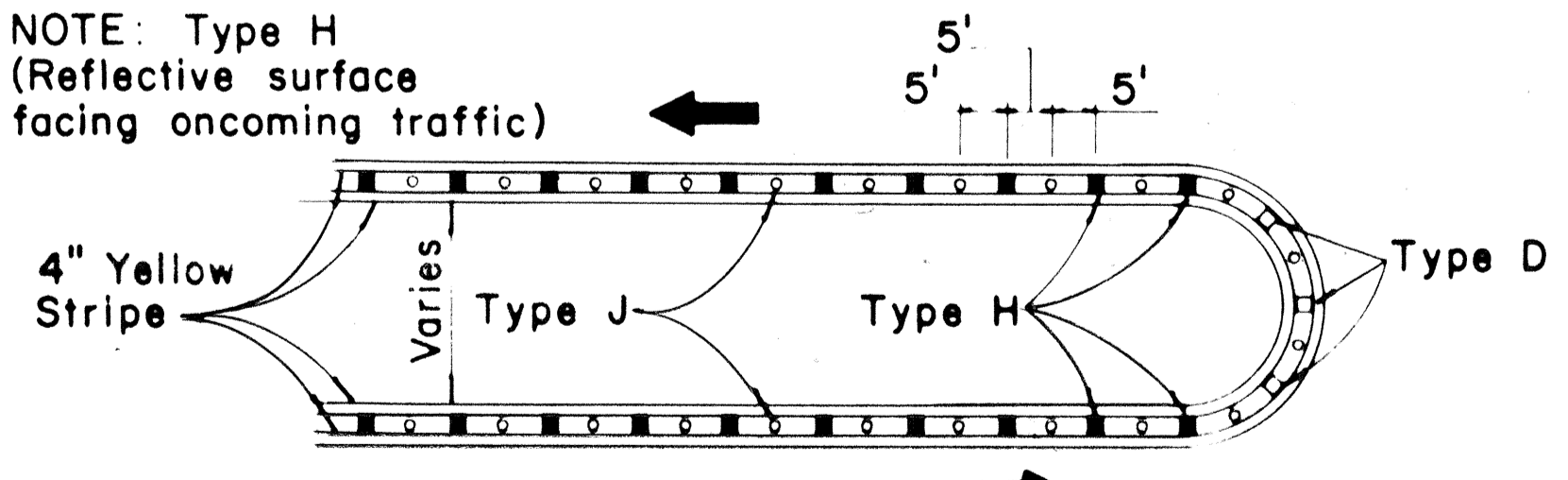
**MULTI-LANE  
LANE LINES AND CENTER LINE**



**FREEWAY LANE LINES**



**CHANNELIZING LINES  
OR SOLID LANE LINES**



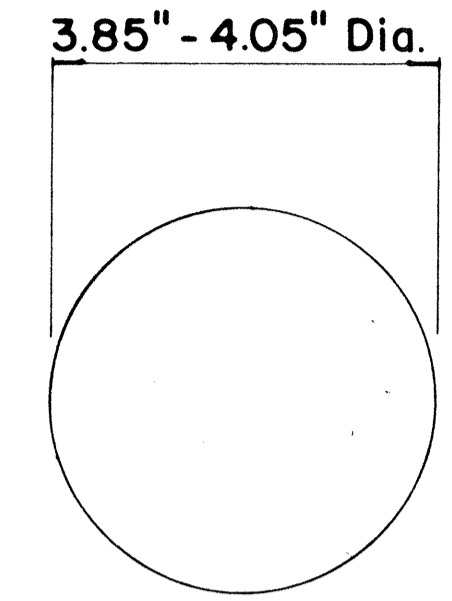
**MEDIAN NOSE DELINEATION**

TWO-LANE

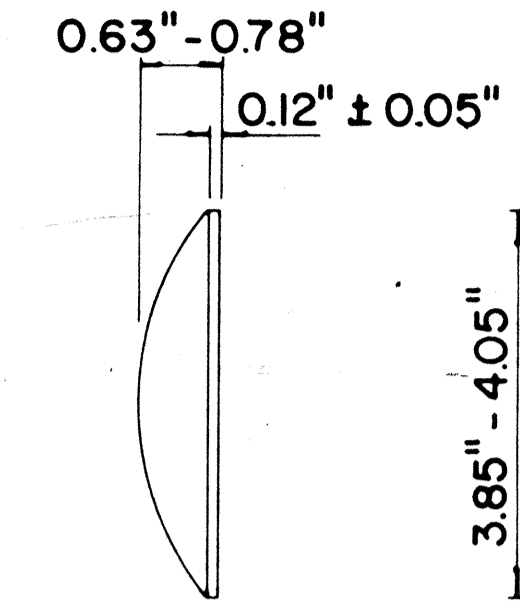
MULTI-LANE

FREEWAY

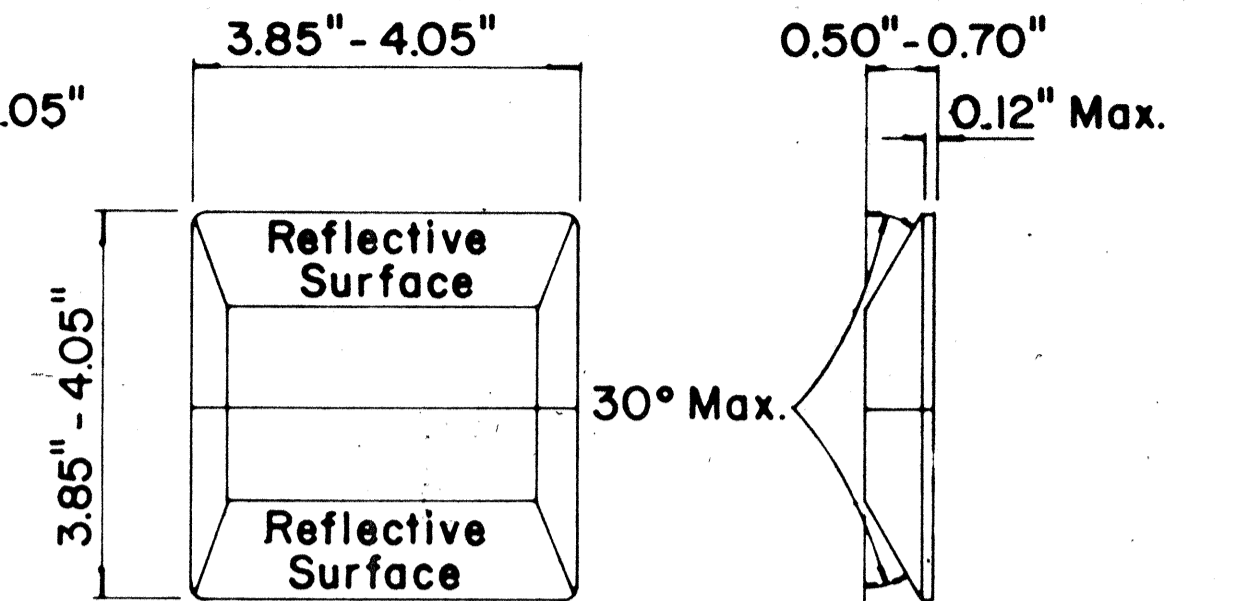
MISCELLANEOUS



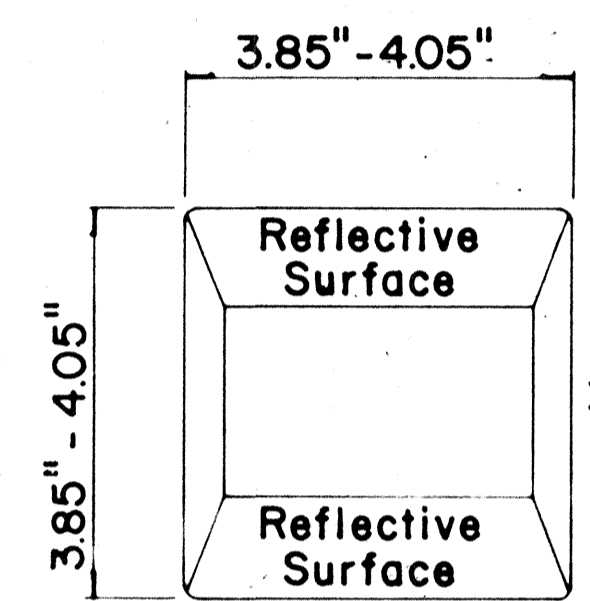
**TYPE A  
NON-REFLECTIVE WHITE MARKER**



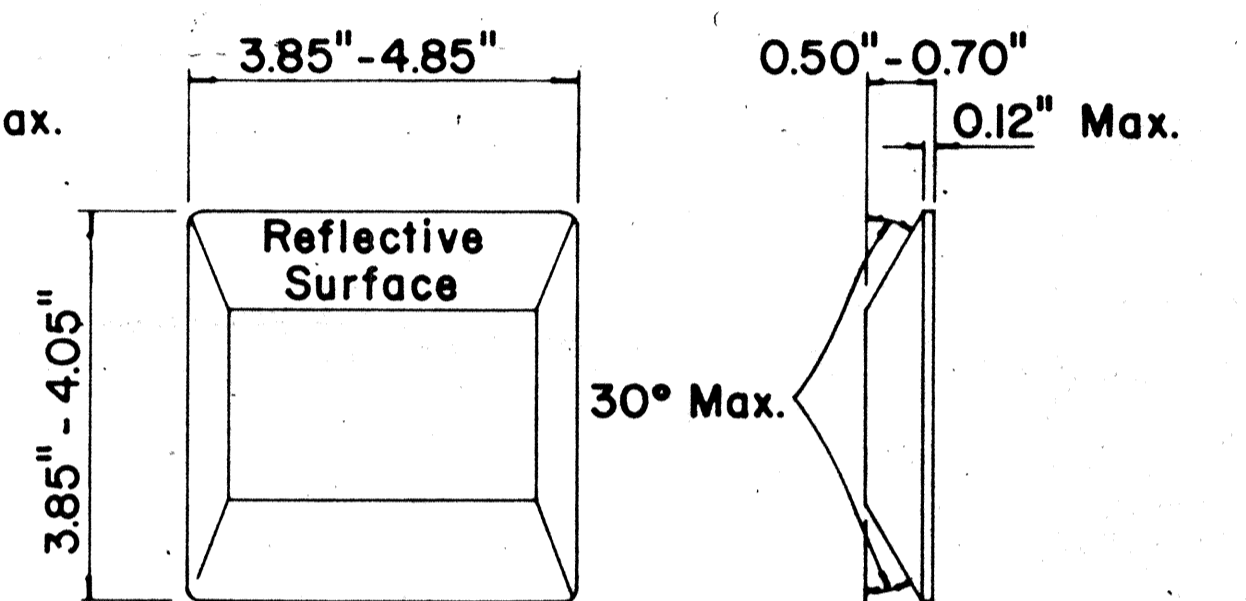
**TYPE J  
NON-REFLECTIVE YELLOW MARKER**



**TYPE C  
RED-CLEAR REFLECTIVE MARKER**



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



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

**GENERAL NOTES**

1. Painted stripes to be done by Contractor unless otherwise specified.

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPICAL DETAILS  
RAISED PAVEMENT MARKERS**

FED. AID PROJ. NO. F-093-1(1)

Not to Scale October 1974

SHEET No. 23 OF 27 SHEETS