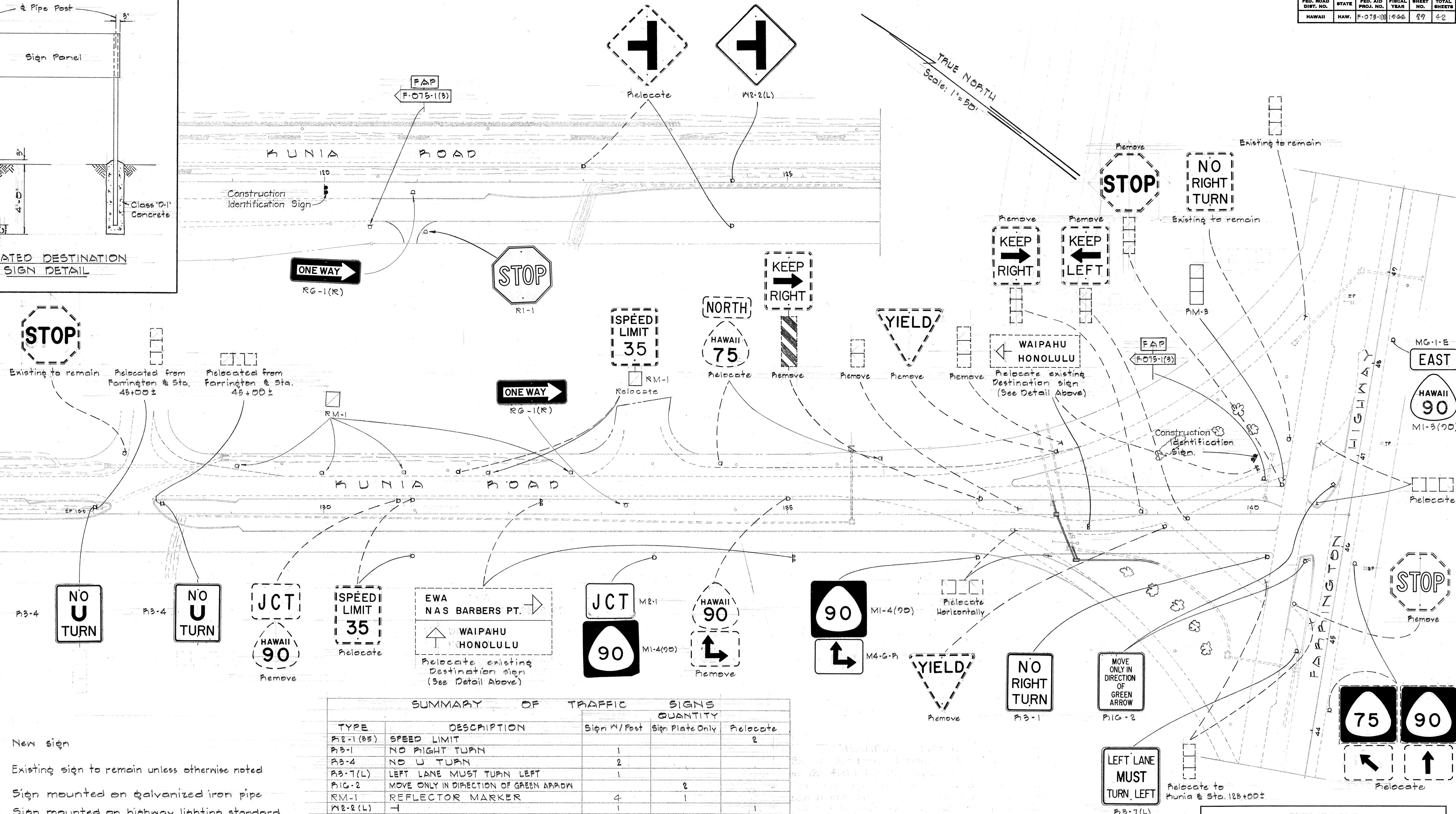
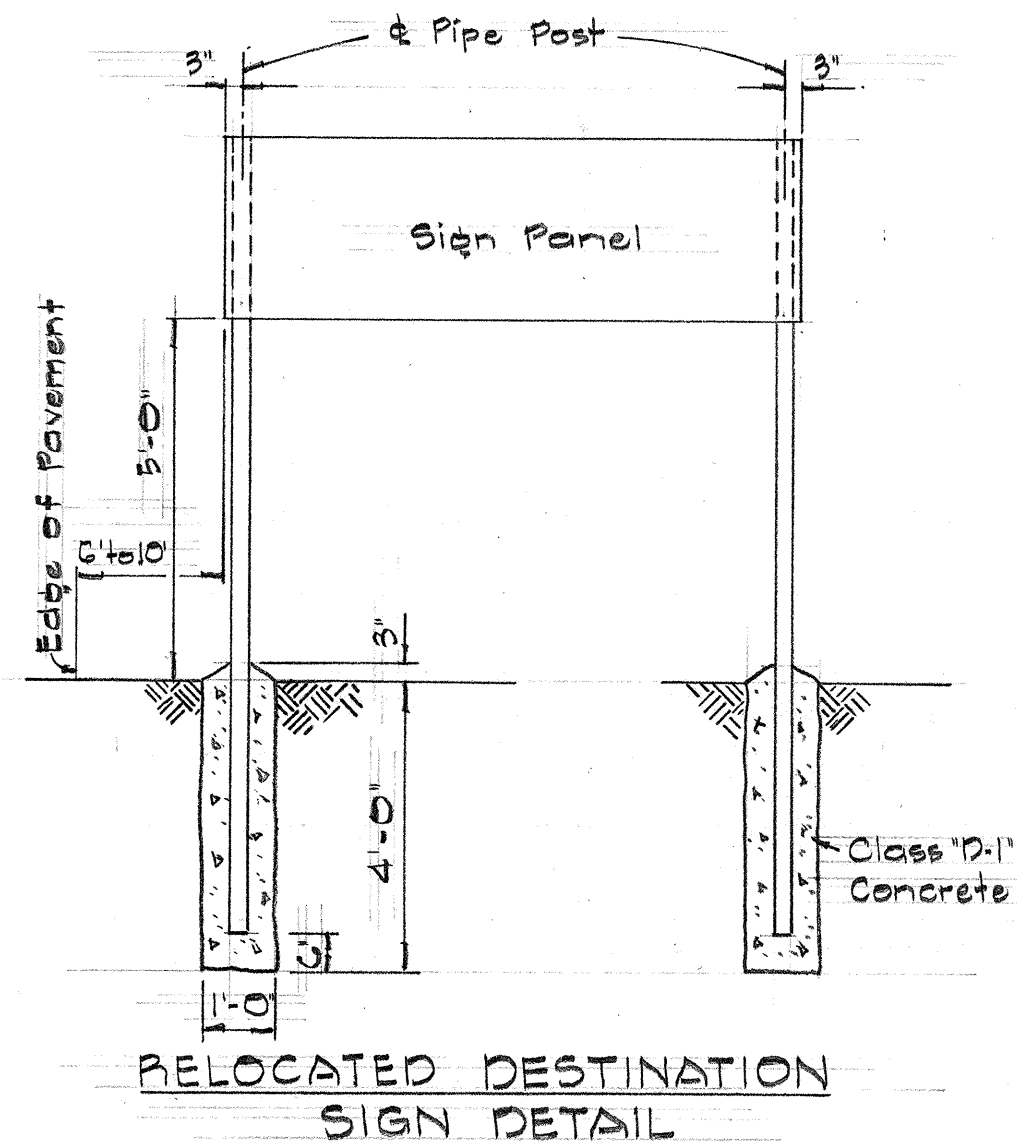
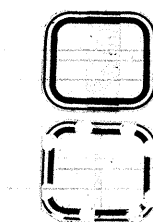




DATE: \_\_\_\_\_  
 SURVEY PLOTTED BY: \_\_\_\_\_  
 PLAN: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 DESIGNED BY: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 QUANTITIES BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 No. \_\_\_\_\_



New sign  
 Existing sign to remain unless otherwise noted  
 Sign mounted on galvanized iron pipe  
 Sign mounted on highway lighting standard, traffic signal standard or utility pole.  
 Reflecterized markers on galvanized channel  
 Ground mounted Destination sign  
 Project Identification sign

| SUMMARY OF TRAFFIC SIGNS |                                       |             |                 |          |
|--------------------------|---------------------------------------|-------------|-----------------|----------|
| TYPE                     | DESCRIPTION                           | Sign W/Post | Sign Plate Only | Relocate |
| P2-1(35)                 | SPEED LIMIT                           |             |                 | 2        |
| P3-1                     | NO RIGHT TURN                         | 1           |                 |          |
| P3-4                     | NO U TURN                             | 2           |                 |          |
| P3-7(L)                  | LEFT LANE MUST TURN LEFT              | 1           |                 |          |
| P1G-2                    | MOVE ONLY IN DIRECTION OF GREEN ARROW |             | 2               |          |
| RM-1                     | REFLECTOR MARKER                      | 4           | 1               |          |
| M2-2(L)                  | +                                     | 1           |                 | 1        |
| M1-3(90)                 | STATE ROUTE MARKER                    | 1           |                 |          |
| M2-1                     | JCT                                   |             | 1               |          |
| M4-G-A                   | AUXILIARY MARKER                      |             | 1               |          |
| MG-1-E                   | CARDINAL DIRECTION MARKER             |             | 1               |          |
| PM-3 vert.               | REFLECTOR MARKER                      | 1           |                 | 1        |
| PM-3 horiz.              | REFLECTOR MARKER                      |             |                 | 3        |
| M1-4(90)                 | STATE ROUTE MARKER                    | 2           |                 |          |
|                          | ROUTE MARKER ASSEMBLY                 |             |                 | 2        |
| R1-1                     | STOP                                  | 1           |                 |          |
| RG-1(R)                  | ONE WAY                               | 2           |                 |          |
|                          | DESTINATION SIGN                      |             |                 | 2        |
| TOTAL                    |                                       | 13          | 5               | 11       |

#### GENERAL NOTES:

- Exact location of signs to be determined in the field by the engineer.
- Existing signs not incorporated into the new traffic sign layout shall be removed unless otherwise noted (All cost incidental to the various contract items).

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

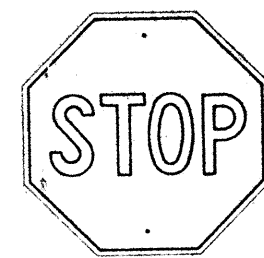
#### TRAFFIC SIGNS

KUNIA ROAD PROJ. NO. F-075-1(3)

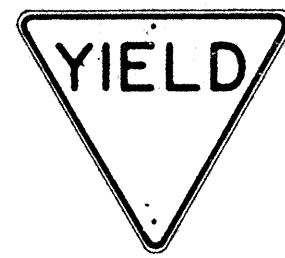
Scale: As Noted

Nov. 1965

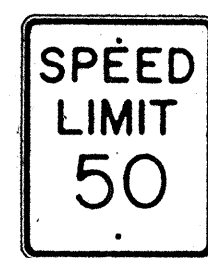
SHEET No. 1 OF 8 SHEETS



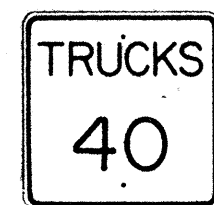
R1-1 30"x 30"



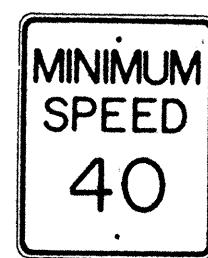
R1-2 36"x 36"x 36"  
R1-2-E 48"x 48"x 48"  
R1-2-I 60"x 60"x 60"



R2-1(50) 24"x 30"  
R2-1(50)-E 36"x 48"  
R2-1(50)-I 48"x 60"



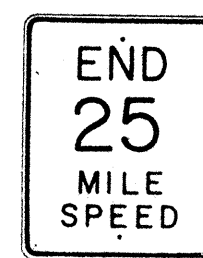
R2-2(40) 24"x 24"  
R2-2(40)-E 36"x 36"  
R2-2(40)-I 48"x 48"



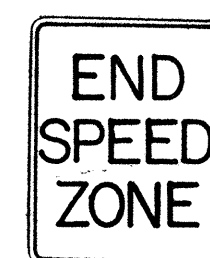
R2-4(40) 24"x 30"  
R2-4(40)-E 36"x 48"  
R2-4(40)-I 48"x 60"



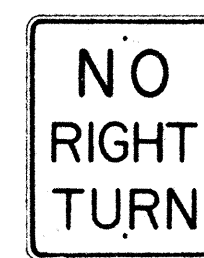
R2-5 24"x 30"  
R2-5-E 36"x 48"  
R2-5-I 48"x 60"



R2-6(25) 24"x 30"  
R2-6(25)-E 36"x 48"  
R2-6(25)-I 48"x 60"



R2-7 24"x 30"  
R2-7-E 36"x 48"  
R2-7-I 48"x 60"



R3-1 24"x 30"  
R3-1-E 36"x 48"



R3-2 24"x 30"  
R3-2-E 36"x 48"



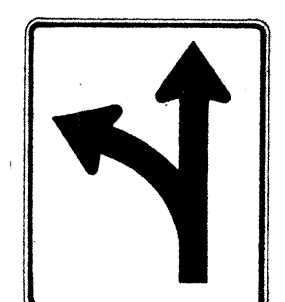
R3-3 24"x 24"



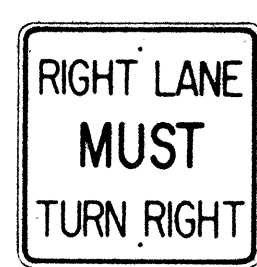
R3-4 24"x 30"  
R3-4-E 36"x 48"  
R3-4-I 48"x 60"



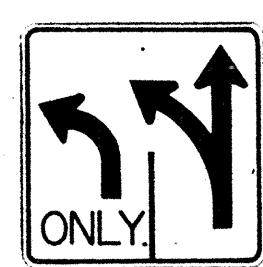
R3-5(L) 30"x 36"



R3-6(L) 30"x 36"



R3-7(R) 30"x 30"



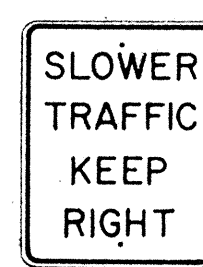
R3-8(L) 30"x 30"



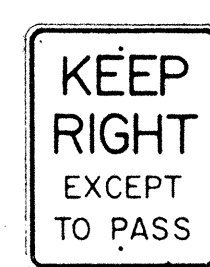
R4-1 24"x 30"



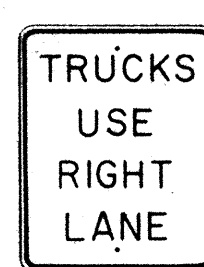
R4-2 24"x 30"



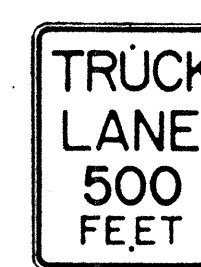
R4-3 24"x 30"  
R4-3-E 36"x 48"  
R4-3-I 48"x 60"



R4-4 24"x 30"  
R4-4-E 36"x 48"  
R4-4-I 48"x 60"



R4-5 24"x 30"  
R4-5-E 36"x 48"



R4-6 24"x 30"  
R4-6-E 36"x 48"



R4-7(R) 24"x 30"  
R4-7(R)-E 36"x 48"



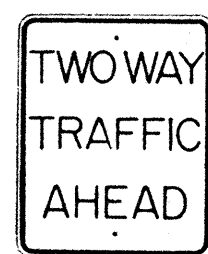
R5-1 24"x 24"



R6-1(R) 36"x 12"



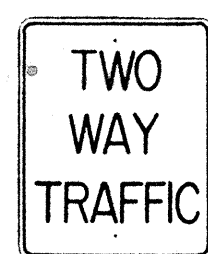
R6-2(R) 18"x 24"



R6-3 24"x 30"



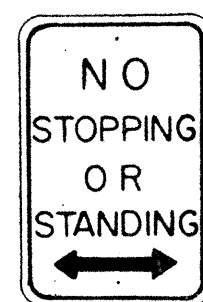
R6-4 24"x 30"



R6-5 24"x 30"



R7-1 12"x 18"



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



R7-107(R) 12"x 18"



R7-201 12"x 6"



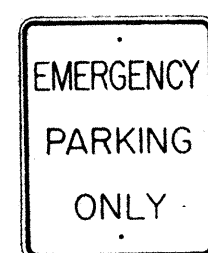
R8-1 24"x 30"  
R8-1-E 36"x 48"  
R8-1-I 48"x 60"



R8-2 24"x 30"  
R8-2-E 36"x 48"



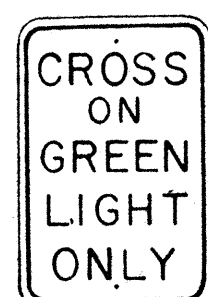
R8-3 24"x 30"  
R8-3-E 36"x 48"



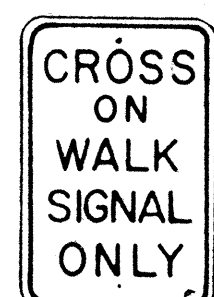
R8-4 24"x 30"  
R8-4-E 36"x 48"  
R8-4-I 48"x 36"



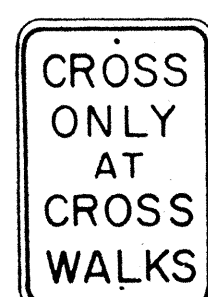
R9-1 18"x 24"



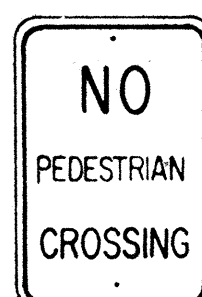
R9-2 12"x 18"



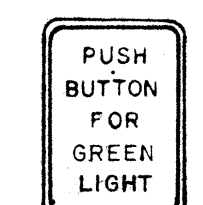
R9-3 12"x 18"



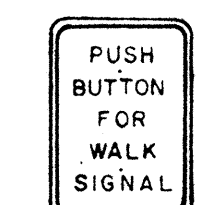
R9-4 12"x 18"



R9-5 12"x 18"



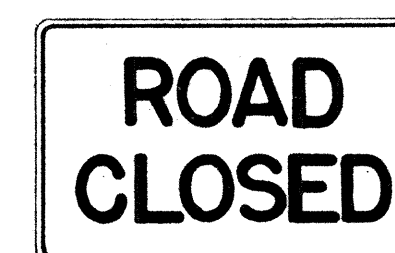
R9-6 9"x 12"



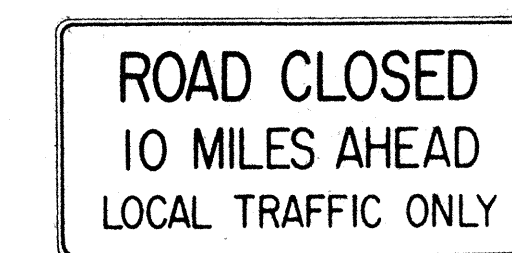
R9-7 9"x 12"



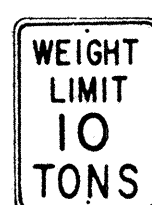
R10-1 24"x 30"  
R10-1-E 36"x 48"  
R10-1-I 48"x 60"



R10-2 48"x 30"



R10-3(10) 60"x 30"



R10-4(10) 18"x 24"

NOTE:

- The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
- All regulatory signs shall be reflectorized unless otherwise specified.
- All regulatory signs shall have  $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise noted.
- The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
- For R2 signs, number in ( ) indicates speed and shall be as shown on the plans.
- (R) or (L) indicates right or left and shall be as shown on the plans.
- For R10-4 sign, number in ( ) indicates weight and shall be as shown on the plan.

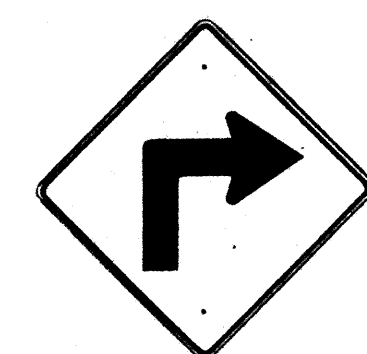
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

STANDARD DETAILS  
REGULATORY SIGNS

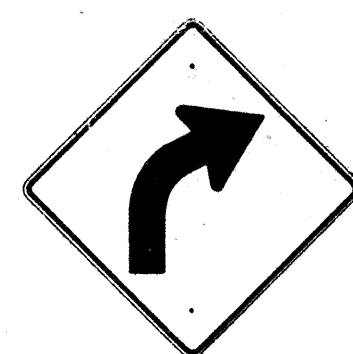
NOT TO SCALE

SHEET No. 2 OF 2 SHEETS

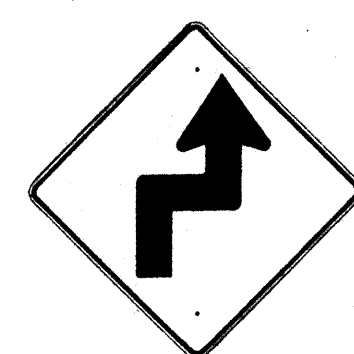
|               |                   |      |
|---------------|-------------------|------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
| NOTE BOOK     | DRAWN BY          |      |
|               | DESIGNED BY       |      |
|               | QUANTITIES BY     |      |
|               | CHECKED BY        |      |



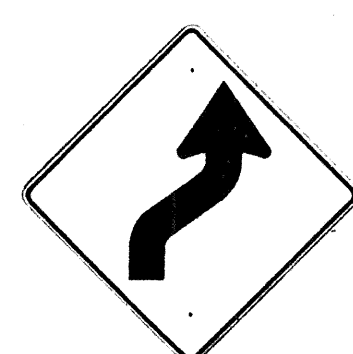
W1-1(R) 30" x 30"



W1-2(R) 30" x 30"



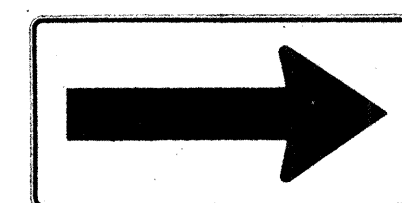
W1-3(R) 30" x 30"



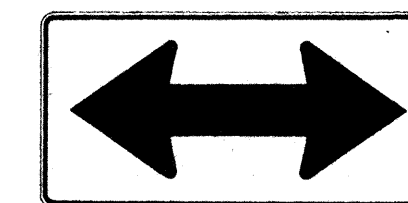
W1-4(R) 30" x 30"



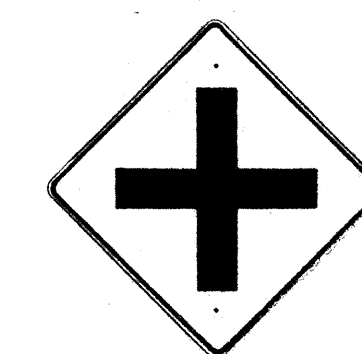
W1-5(R) 30" x 30"



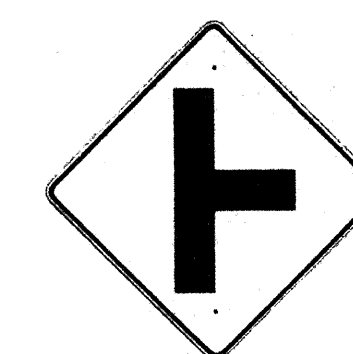
W1-6 48" x 24"



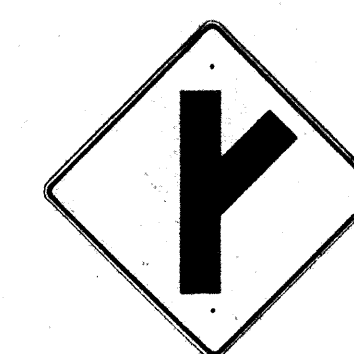
W1-7 48" x 24"



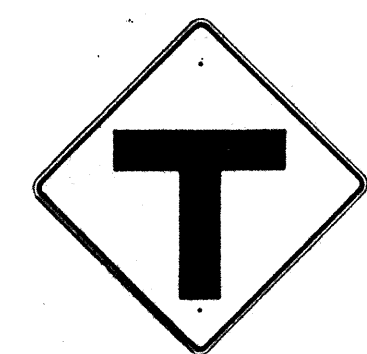
W2-1 30" x 30"



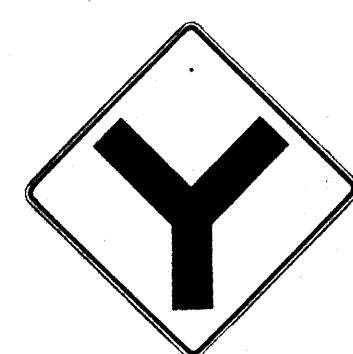
W2-2 30" x 30"



W2-3(R) 30" x 30"



W2-4 30" x 30"



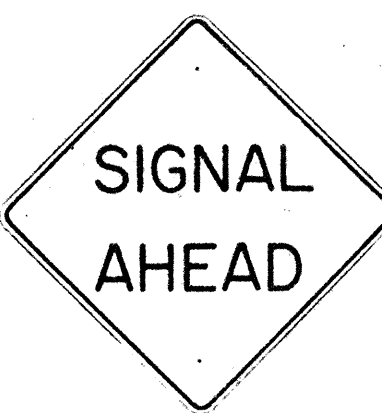
W2-5 30" x 30"



W3-1 30" x 30"



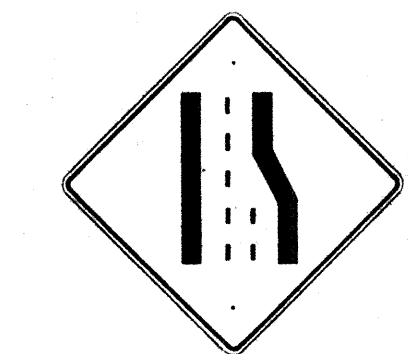
W3-2 30" x 30"



W3-3 36" x 36"



W4-1 30" x 30"  
W4-1-E 36" x 36"  
W4-1-I 48" x 48"



W4-2 30" x 30"  
W4-2-E 36" x 36"



W5-1 30" x 30"  
W5-1-E 36" x 36"



W5-2 30" x 30"



W5-3 30" x 30"



W6-1 36" x 36"



W6-2 36" x 36"



W7-1 30" x 30"



W8-1 30" x 30"



W8-2 30" x 30"



W8-3 30" x 30"



W8-4 30" x 30"



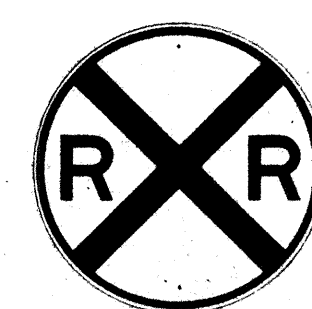
W8-5 30" x 30"



W9-1 30" x 30"



W9-2 30" x 30"



W10-1 36" DIAMETER



W11-1 30" x 30"



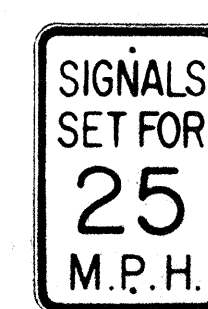
W11-5 30" x 30"



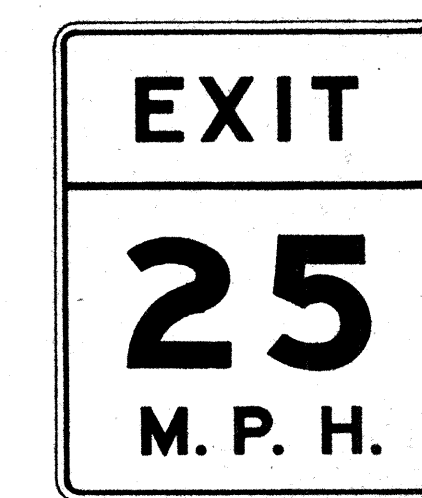
W12-2 36" x 36"



W13-1(35) 18" x 18"



W13-2(25) 12" x 18"



W13-3(25) 48" x 60"

#### NOTE:

1. The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
2. All warning signs shall be reflectorized unless otherwise specified.
3. All warning signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise noted.
4. (R) or (L) indicates right or left and shall be as shown on the plan.
5. The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
6. For W13 sign, number in ( ) indicates speed and shall be as shown on the plans.

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

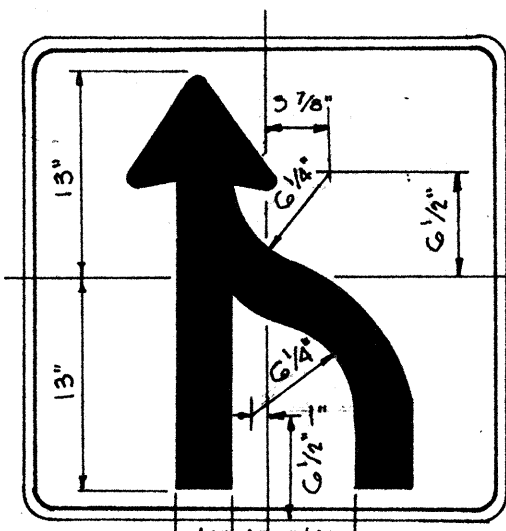
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

STANDARD DETAILS  
WARNING SIGNS

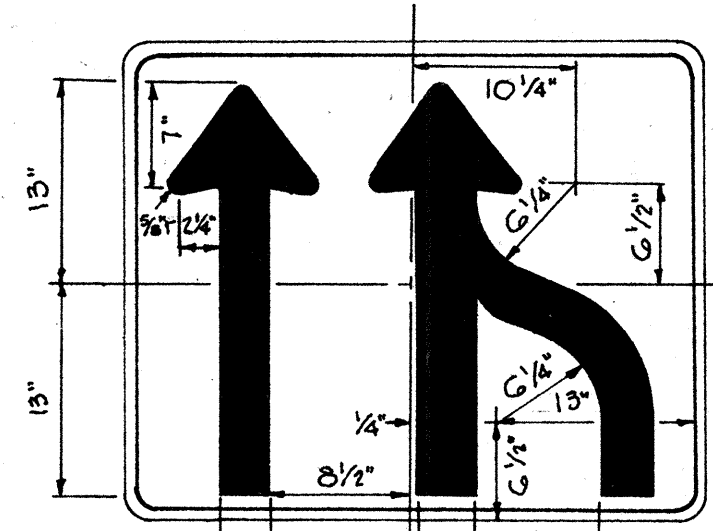
NOT TO SCALE

SHEET No. 31 OF 42 SHEETS

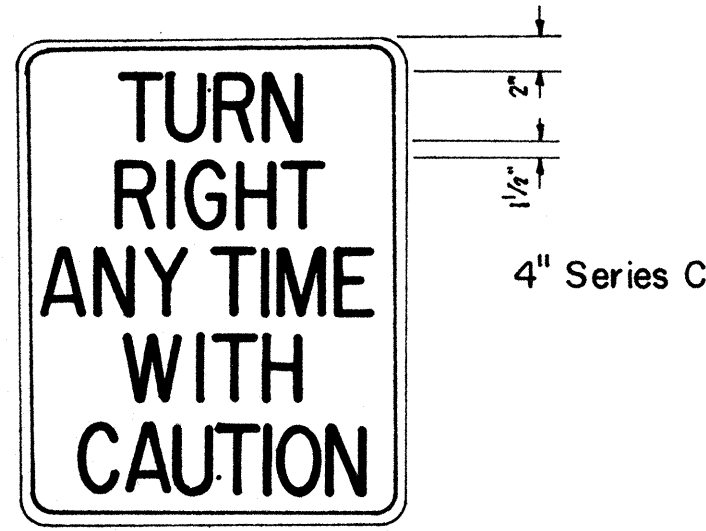
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | 5073-1(8)          | 1966        | 22        | 42           |



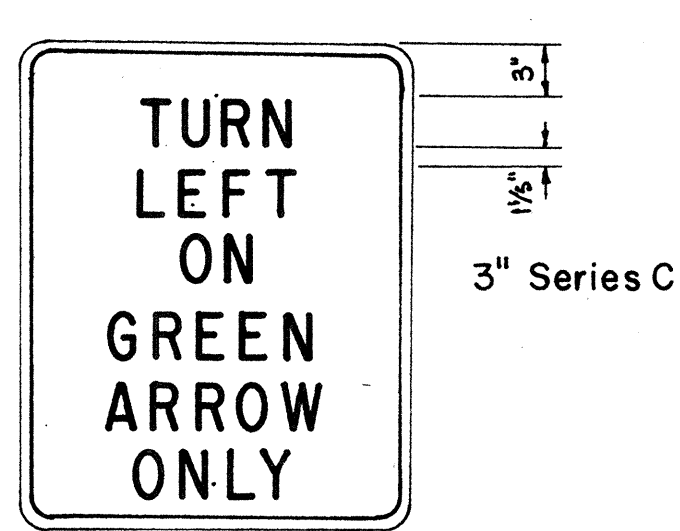
R3 - 9 30"x 30"



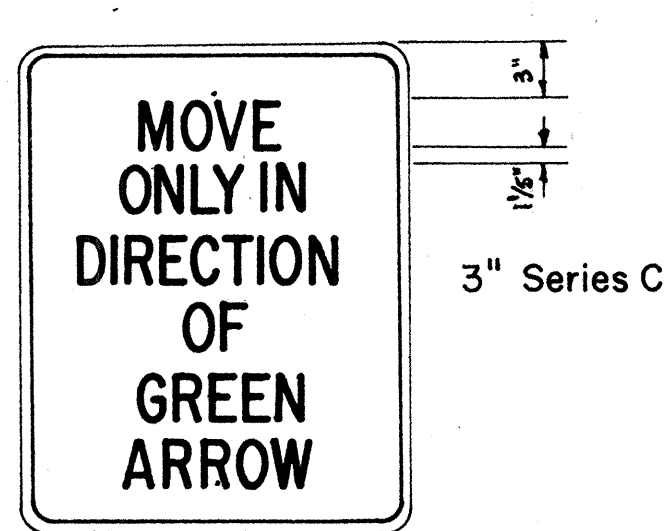
R3-10 36"x 30"



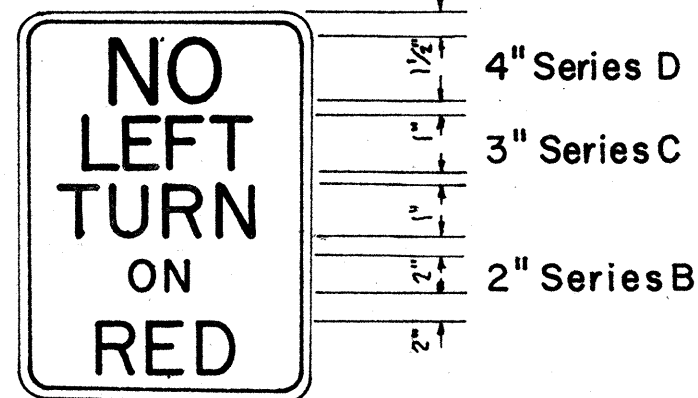
R15 - 1 24"x 30"



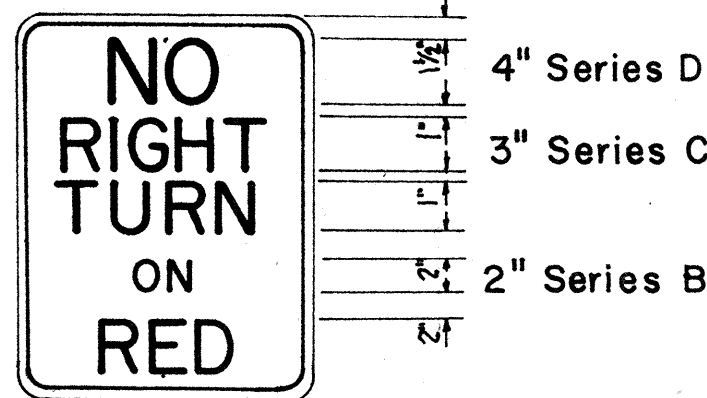
R16 - 1 24"x 30"



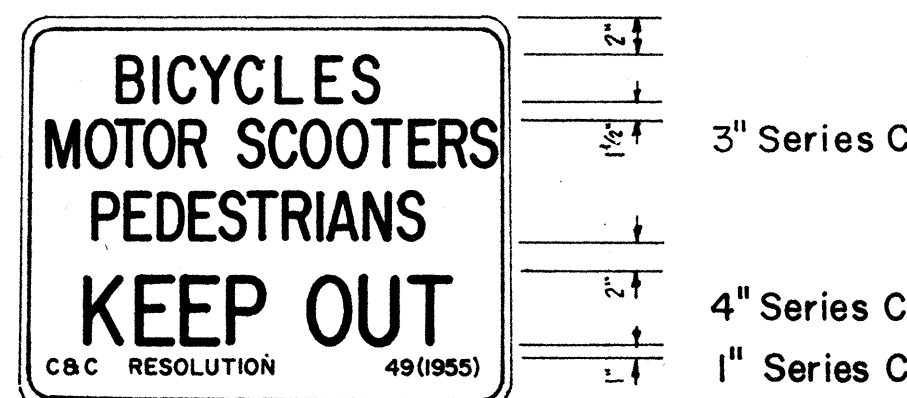
R16-2 24"x 30"



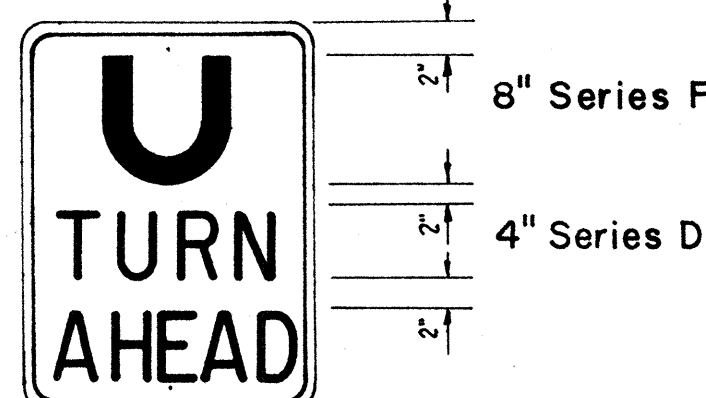
R17-1 18"x 24"



R17-2 18"x 24"



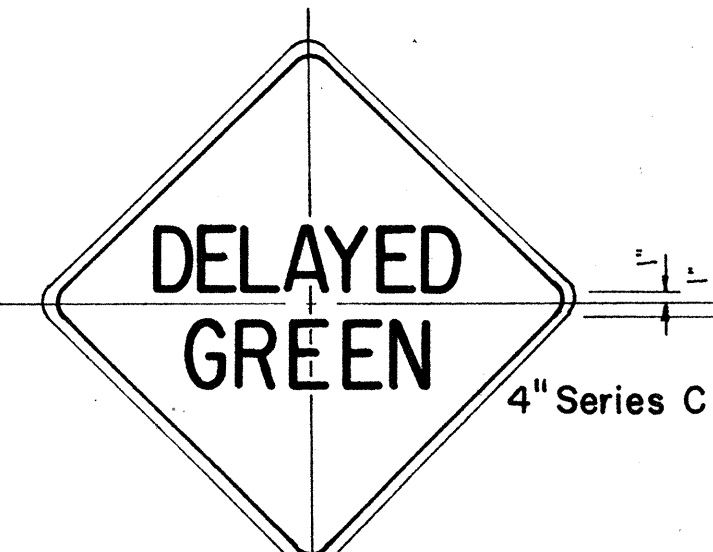
R18-1 30"x 24"



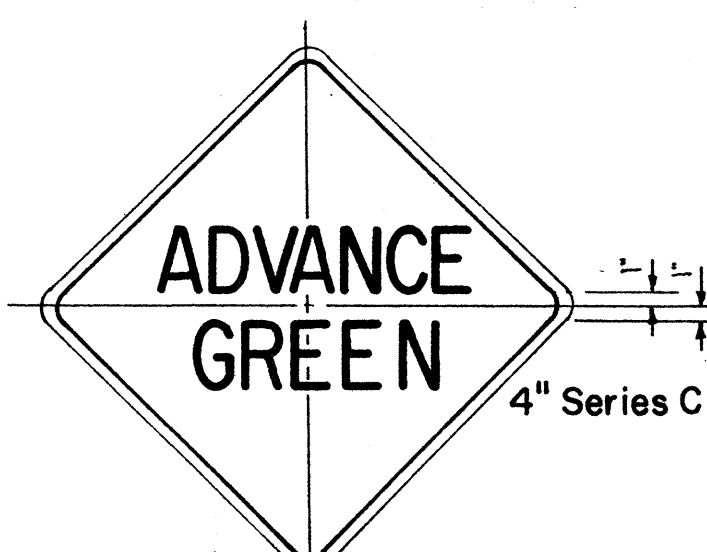
R19-1 18"x 24"



W13-4 24"x 24"



W15 - 1 24"x 24"



W15-2 24"x 24"

- NOTE:
- The shape, color, plate details, lettering and reflectorization of Regulatory signs (Prefix R) and Warning signs (Prefix W) shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
  - All regulatory and warning signs shall be reflectorized unless otherwise specified.
  - All regulatory and warning signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise noted.

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

STANDARD DETAILS  
MISCELLANEOUS  
REGULATORY & WARNING SIGNS

Scale: 1" = 1'- 0"

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | F-073-1(3)         | 1966        | 33        | 42           |



W 7-2 48"x 48"



W8-7 30"x 30"



W14-1 30"x 30"



W20-1a 48"x 48"



W20-2d 48"x 48"



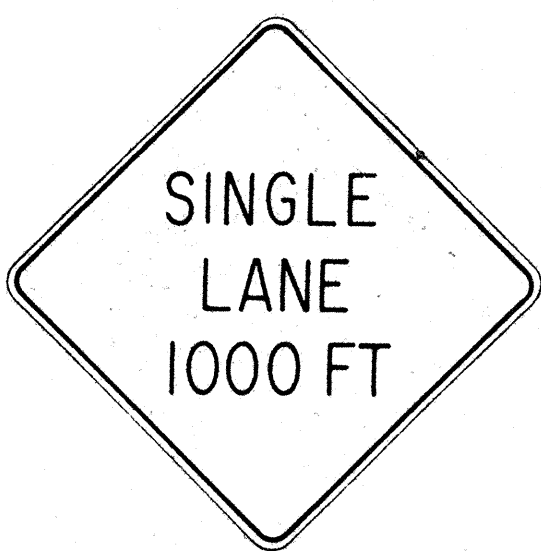
W20-3b 48"x 48"



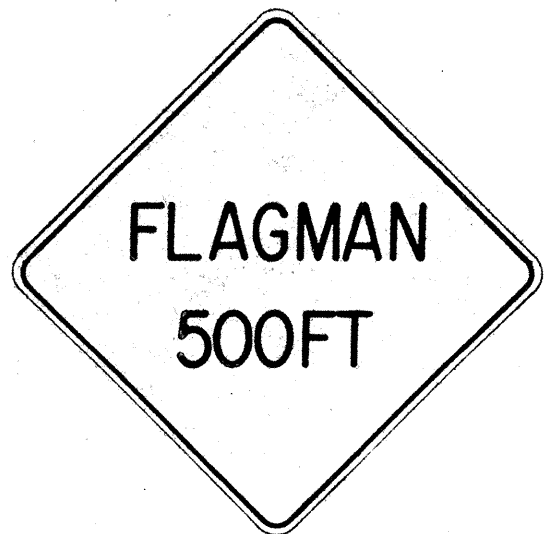
W20-4d 48"x 48"



W20-5d(L) 48"x 48"



W20-6b 48" x 48"



W20-7c 48" x 48"



W21-1 30"x 30"



W21-2 24"x 24"



W21-3 36"x 36"



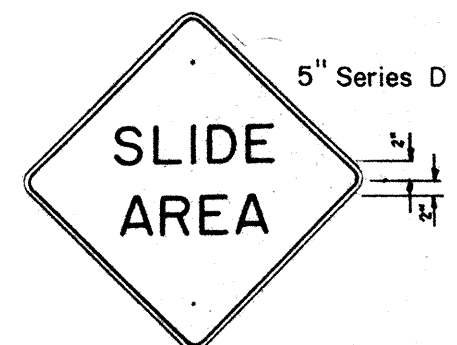
W21-4 30"x 30"



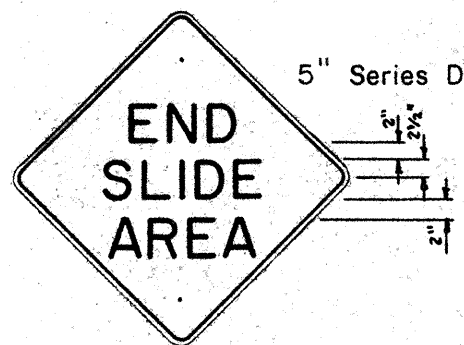
W21-5 30"x 30"



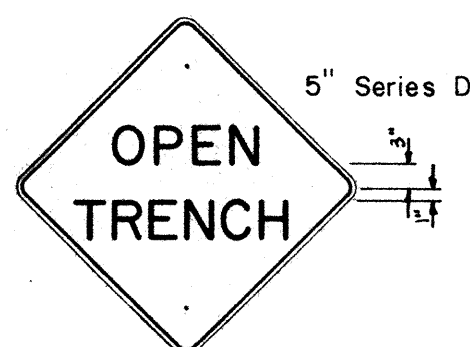
W21-6 30"x 30"



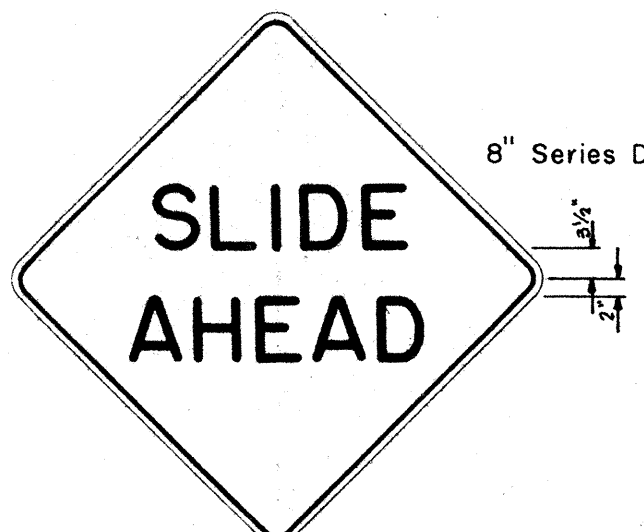
W22-1 30"x 30"



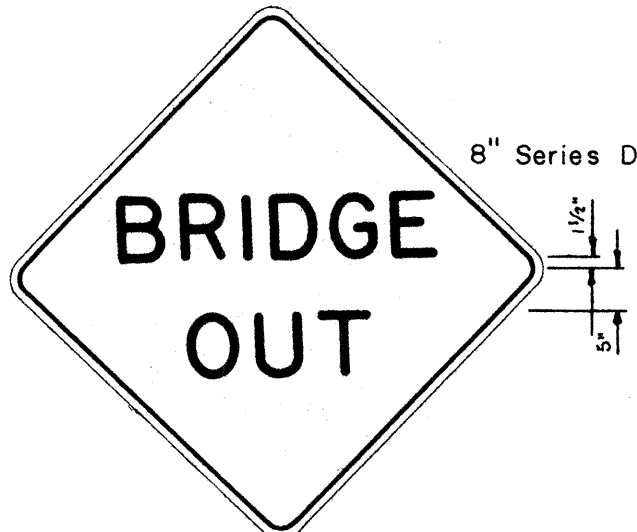
W22-2 30"x 30"



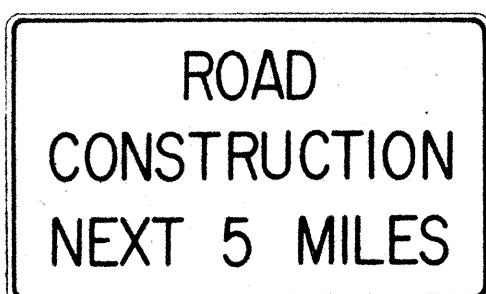
W22-3 30" x 30"



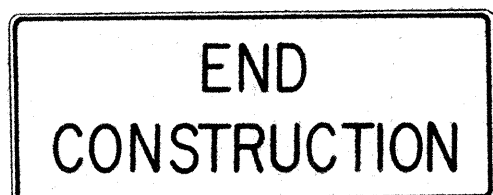
W22-4 48" x 48"



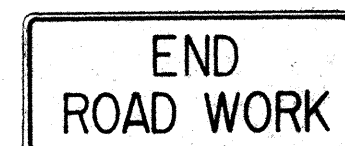
W22-5 48" x 48"



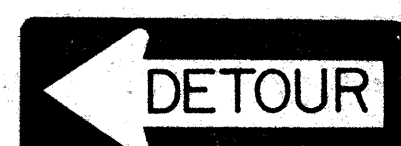
G 20-1(5) 60"x 36"



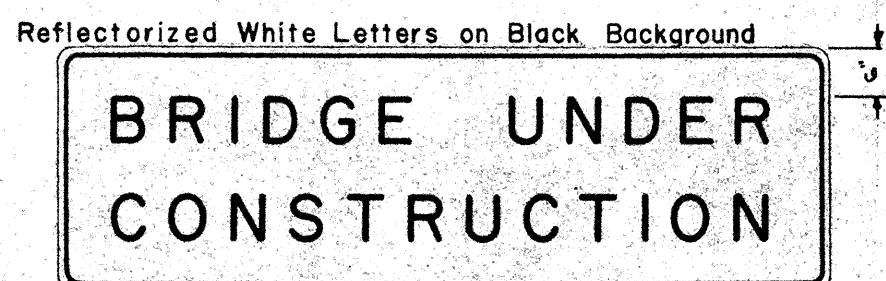
G 20-2 60"x 24"



G 20-3 42"x 18"



M5-7(L) 48"x 18"



CW-1 96" x 30"

- NOTE:
- The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
  - All signs shall be reflectorized unless otherwise specified.
  - All signs shall have  $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise noted.
  - For W20 series signs, suffixes a,b,c and d are as follows a 1500 FT, b 1000 FT, c 500 FT and d AHEAD
  - (R) or (L) indicates right or left and shall be as shown on the plans.
  - Number in ( ) indicates miles and shall be as shown on the plans.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

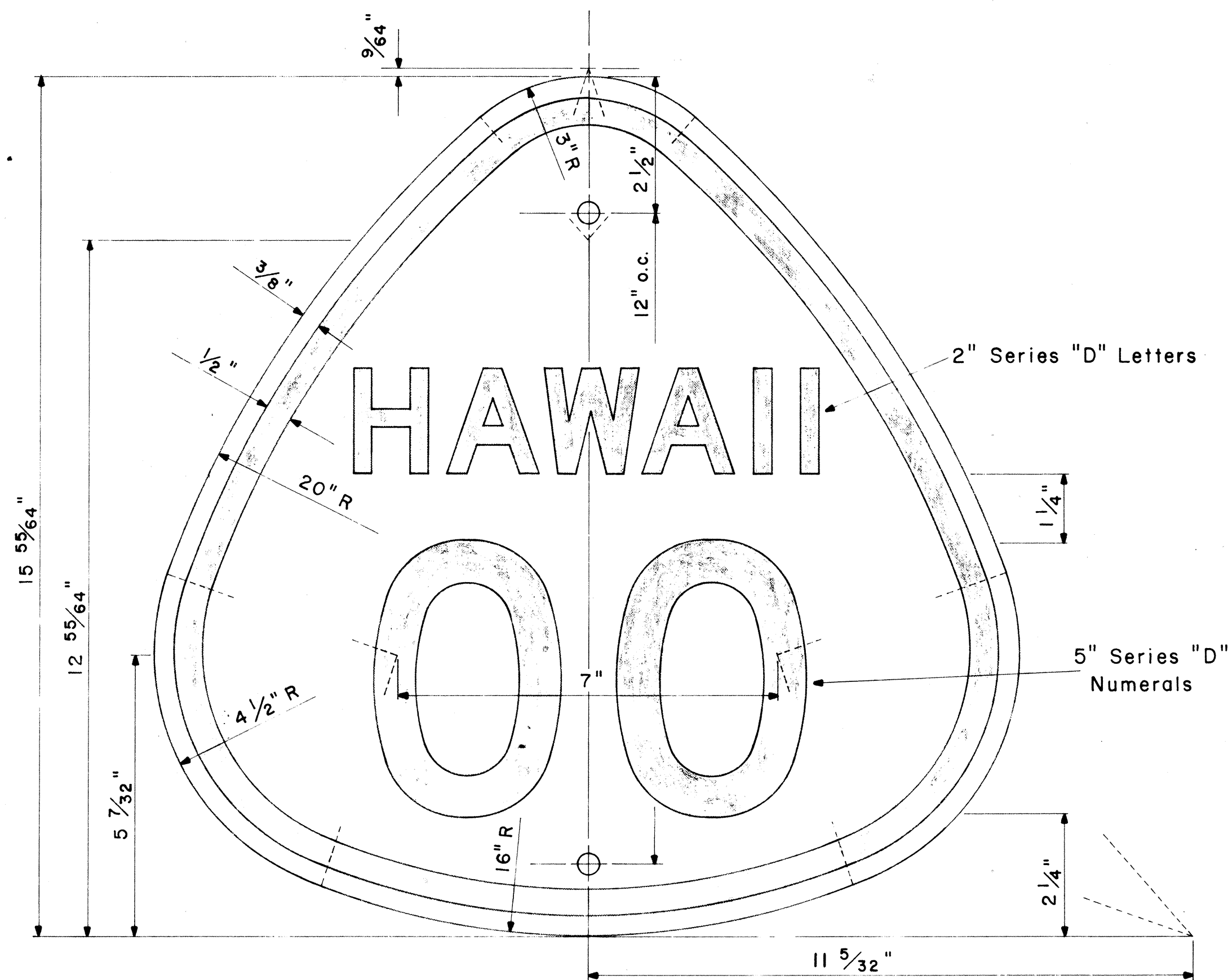
STANDARD DETAILS

CONSTRUCTION SIGNS

NOT TO SCALE

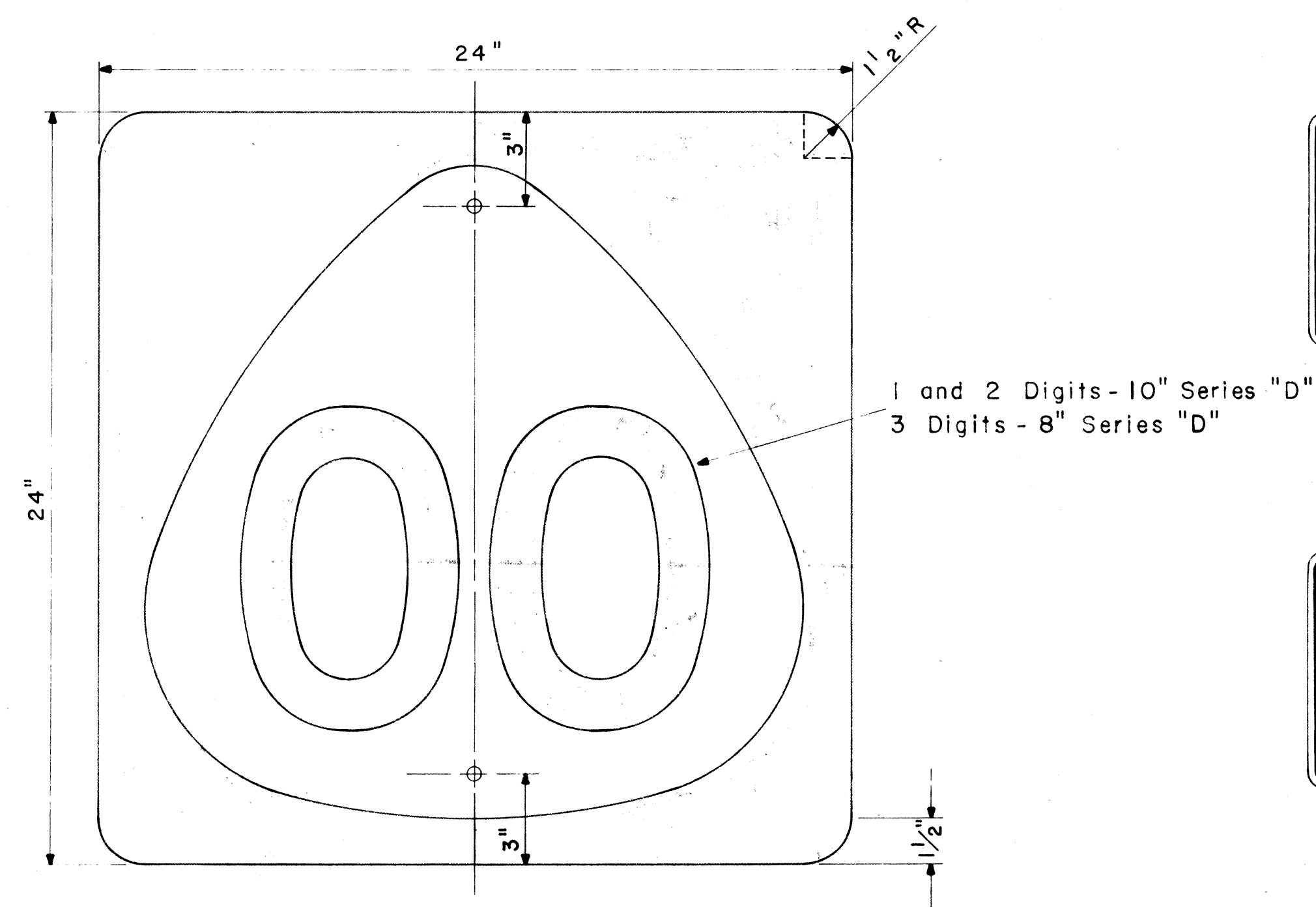
SHEET No. 5 OF 8 SHEETS

|           |                   |      |
|-----------|-------------------|------|
| ORIGINAL  | SURVEY PLOTTED BY | DATE |
| PLAN      | DESIGNED BY       |      |
| NOTE BOOK | QUANTITIES BY     |      |
|           | CHECKED BY        |      |



STATE ROUTE MARKER  
MI-3(OO)

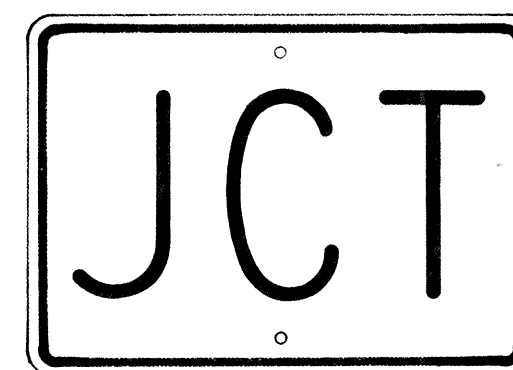
Scale:  $\frac{1}{2}$ " = 1"



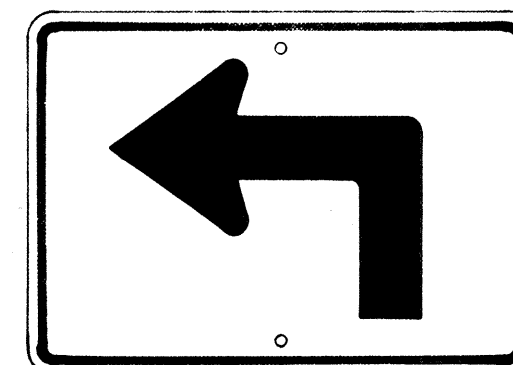
STATE ROUTE MARKER  
MI-4(OO)

Scale:  $\frac{1}{4}$ " = 1"

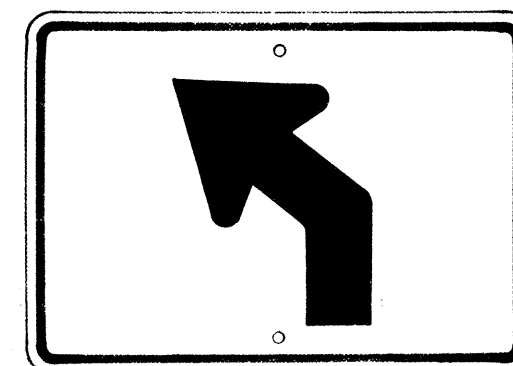
NOTE:  
Multiply all dimensions of State Route Marker MI-3 by 1.3 for the dimensions of the shield for MI-4.



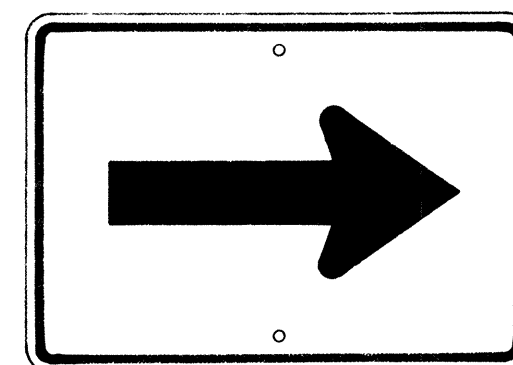
M2-1  
21" x 15"



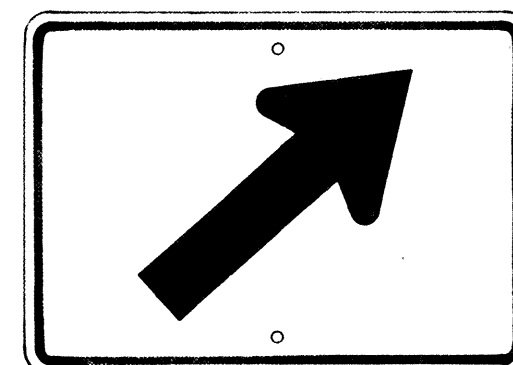
M3-1-L  
\* M3-1-R  
21" x 15"



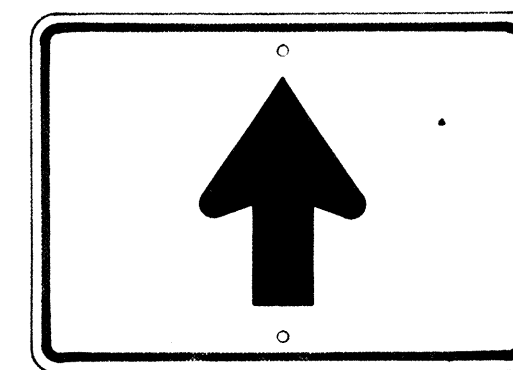
M3-2-L  
\* M3-2-R  
21" x 15"



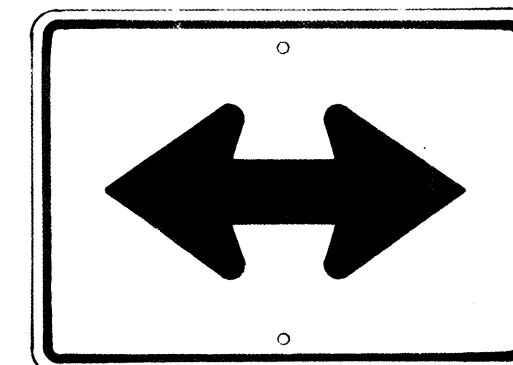
M4-1  
21" x 15"



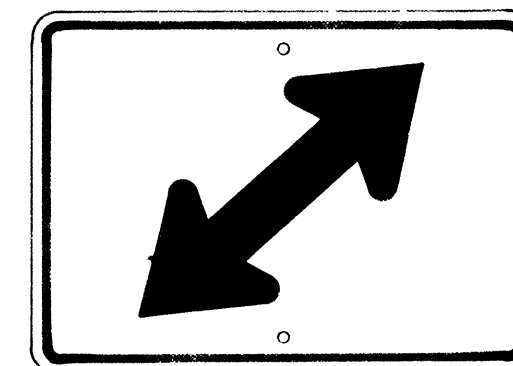
M4-2-R  
\* M4-2-L  
21" x 15"



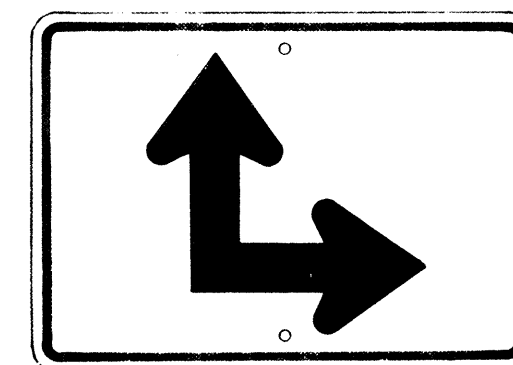
M4-3  
21" x 15"



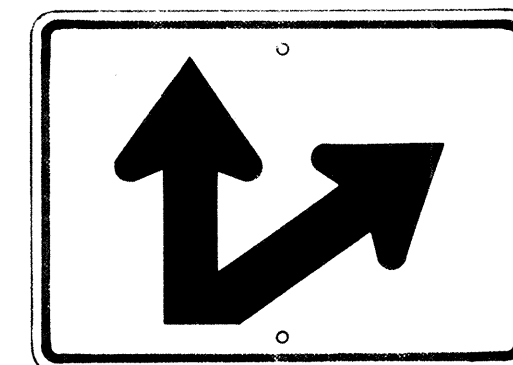
M4-4  
21" x 15"



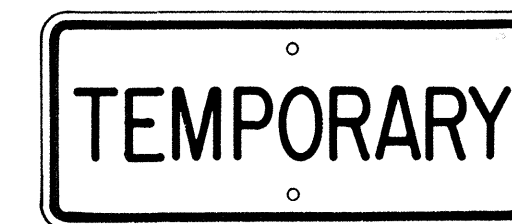
M4-5-R  
\* M4-5-L  
21" x 15"



M4-6-R  
\* M4-6-L  
21" x 15"



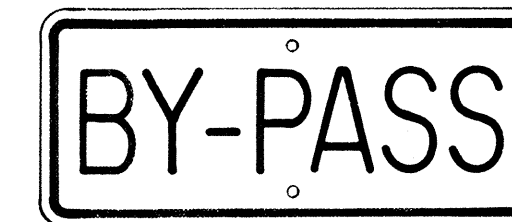
M4-7-R  
\* M4-7-L  
21" x 15"



M5-1  
21" x 9"



M5-2  
21" x 9"



M5-3  
21" x 9"



M5-4  
21" x 9"



M5-5  
21" x 9"



M5-6  
21" x 9"



M6-1-N  
21" x 9"  
(See Note 6)



M7-1  
18" x 12"

### AUXILIARY MARKERS

Scale:  $\frac{1}{8}$ " = 1"

\* NOTE:  
Signs shall be similar but opposite in direction.

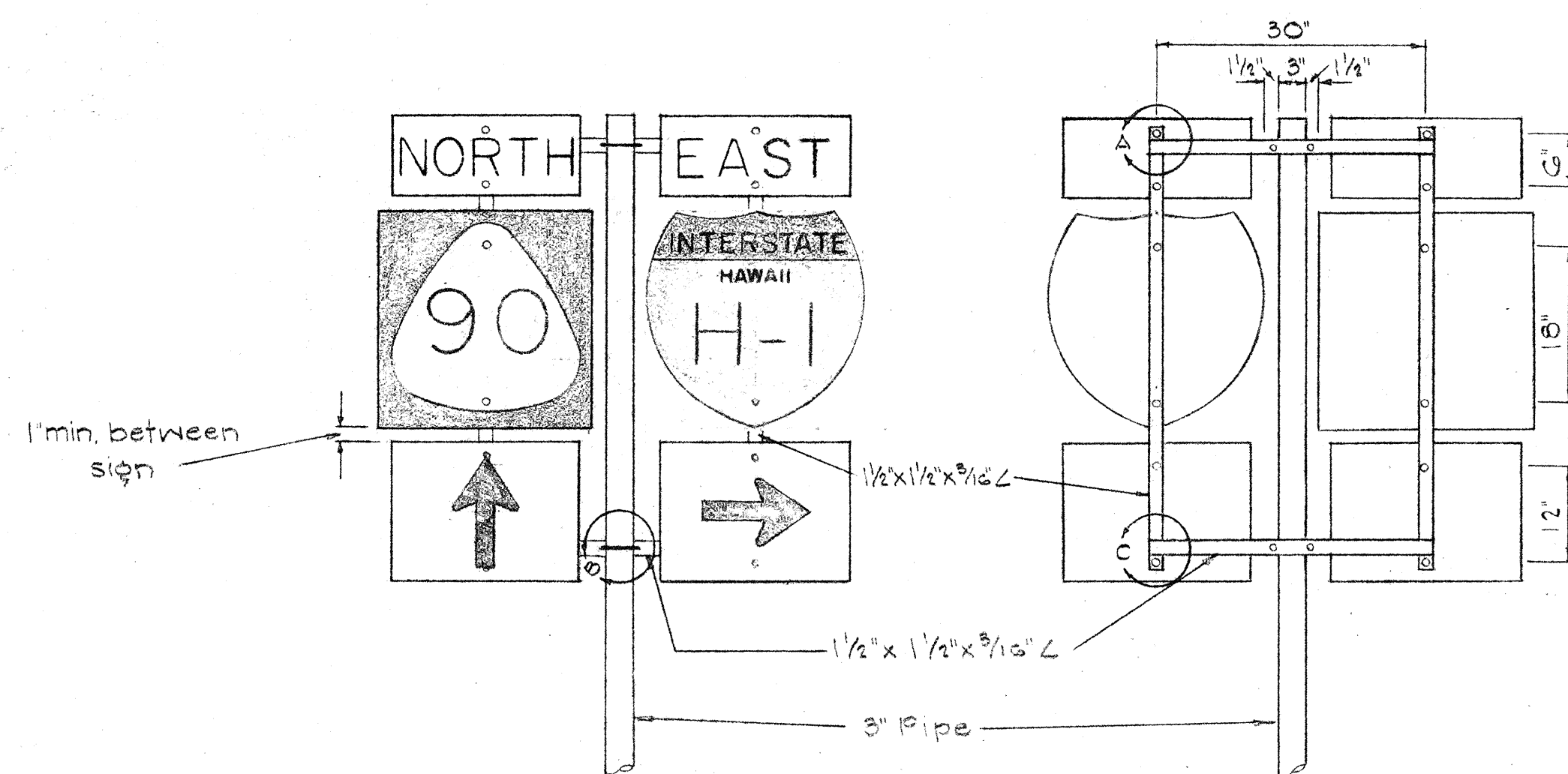
### GENERAL NOTES

- The shape, color, dimensions, symbols, wording, lettering and reflectorizing of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961, unless otherwise specified.
- All letters and figures shall conform to the manual "Standard Alphabets for Highway Signs," Dept. of Commerce, Bureau of Public Roads, 1952.
- All markers shall be reflectorized unless otherwise specified.
- All markers shall have  $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise specified.
- All markers shall have a black legend on a white background unless otherwise specified.
- Sign message of Cardinal Direction Marker (M6-1) shall be denoted by the following suffixes:
  - M6-1-N : NORTH
  - M6-1-E : EAST
  - M6-1-S : SOUTH
  - M6-1-W : WEST
- Auxiliary markers denoted with the suffix "I": (M4-1-I) shall have a white legend on a blue background.
- Cardinal Direction Marker (M6-1) with suffix I(3) shall have a white legend on a blue background and shall be 30" x 15" in size.
- For MI-3, and MI-4 signs, number in ( ) indicates route number and shall be as shown on the plan.

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
DIRECTOR OF TRANSPORTATION

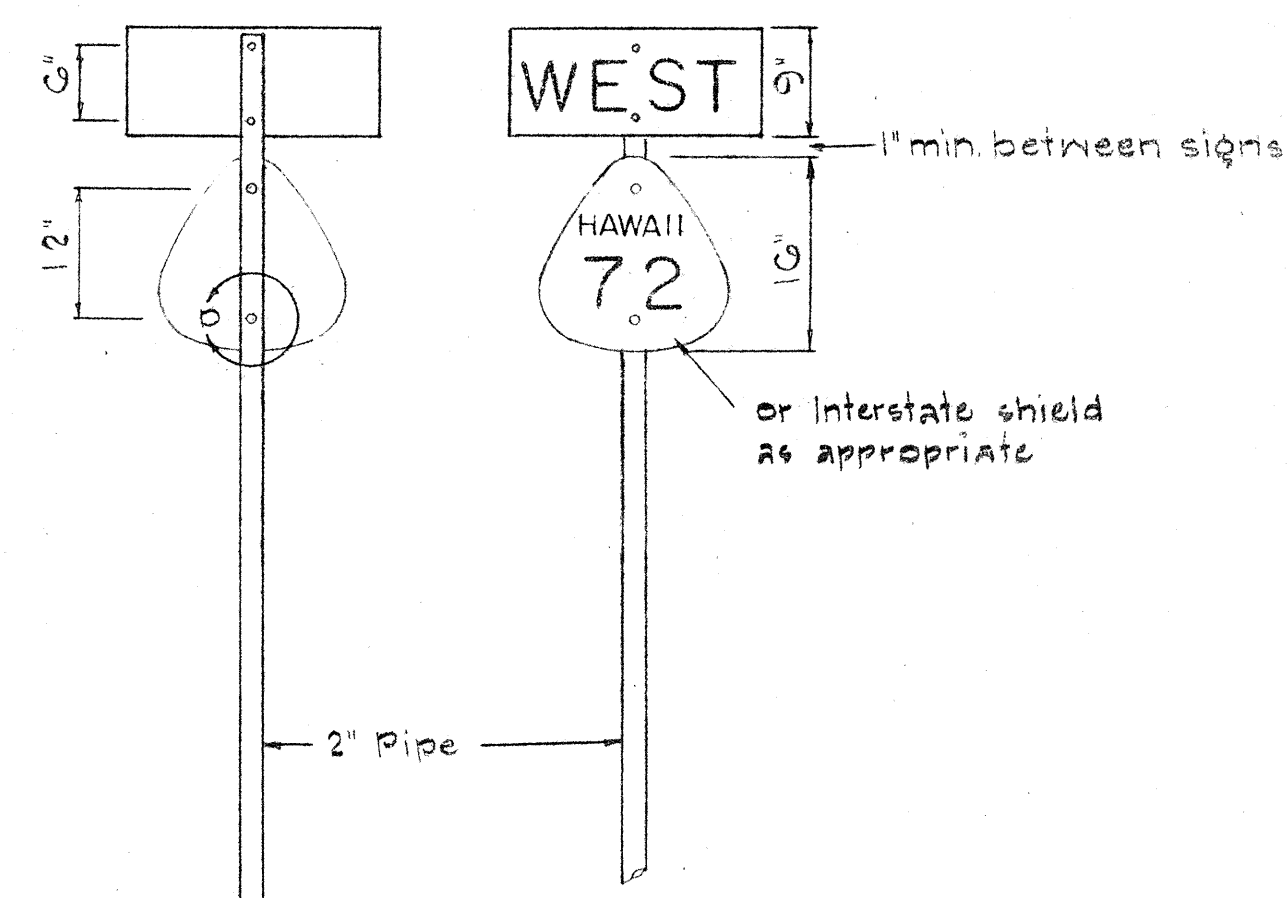
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
STANDARD DETAILS  
STATE ROUTE MARKERS  
AND  
AUXILIARY MARKERS  
Scale: As Noted  
SHEET NO. 6 OF 8 SHEETS

DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_  
NOTED BY: \_\_\_\_\_  
QUANTITIES BY: \_\_\_\_\_  
REVISIONS BY: \_\_\_\_\_



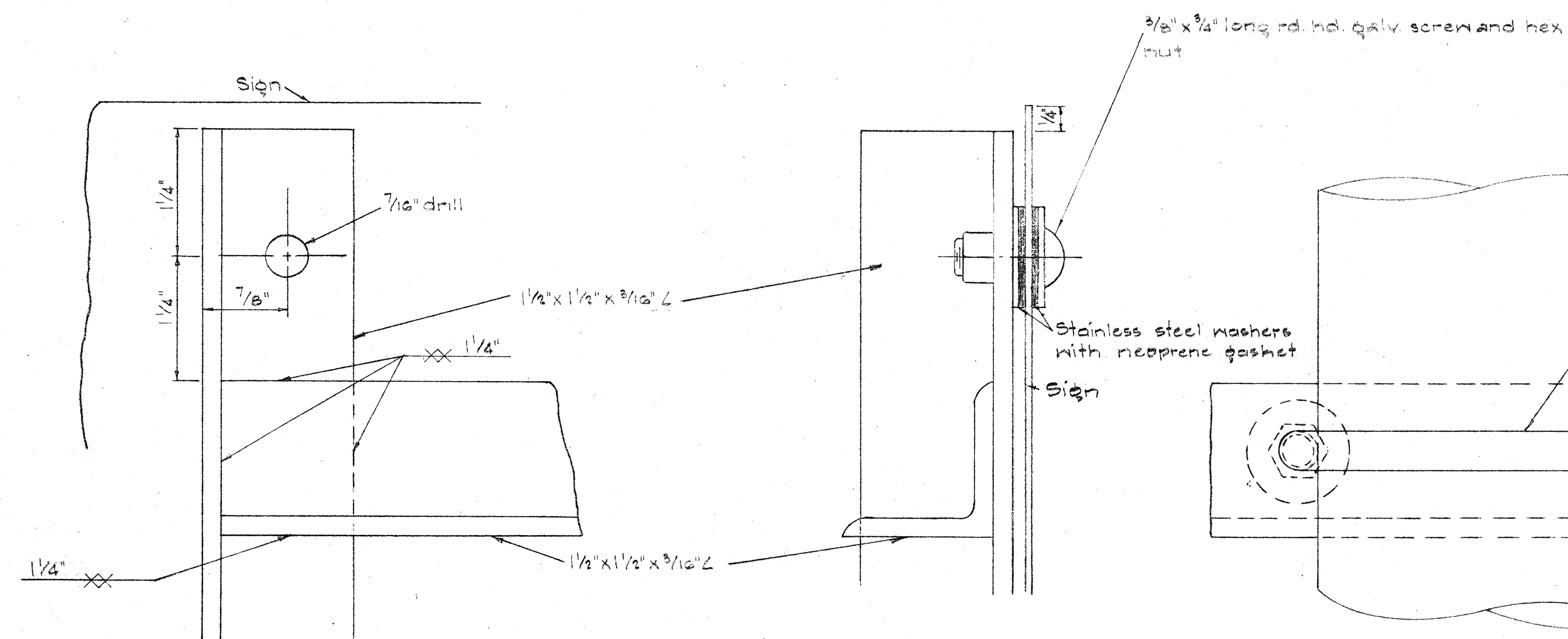
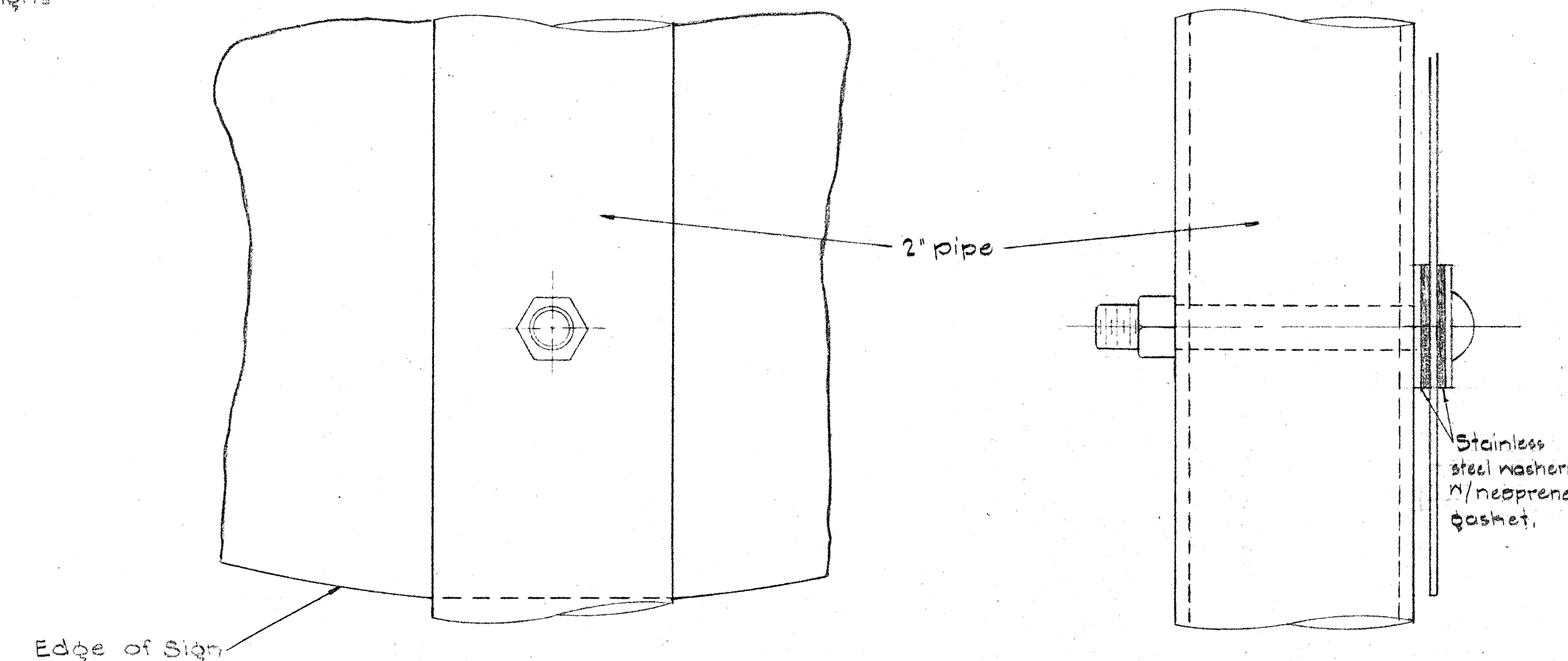
TYPE "B" ASSEMBLY  
NOT TO SCALE

NOTE:  
Minimum clearance between signs shall be 1 inch. (Larger clearances shall be in multiples of 1 inch.)



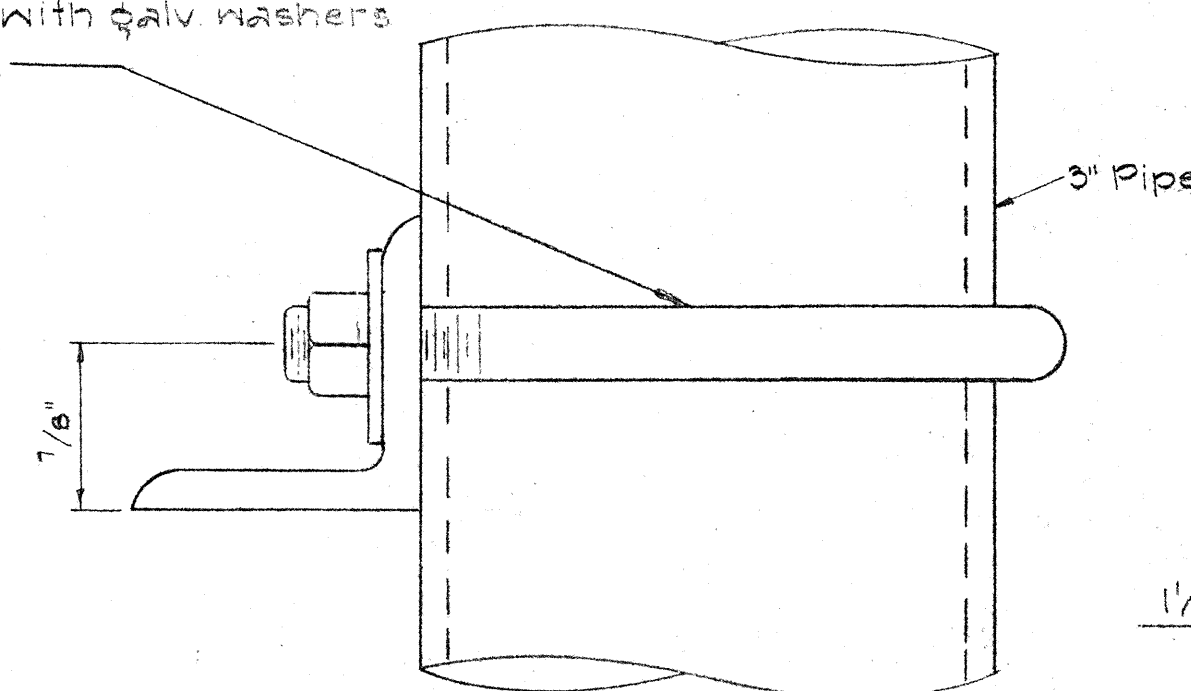
TYPE "A" ASSEMBLY  
NOT TO SCALE

NOTE:  
Use 2" pipe for Type "A" Assembly.  
Use 3" pipe for Type "B" Assembly.

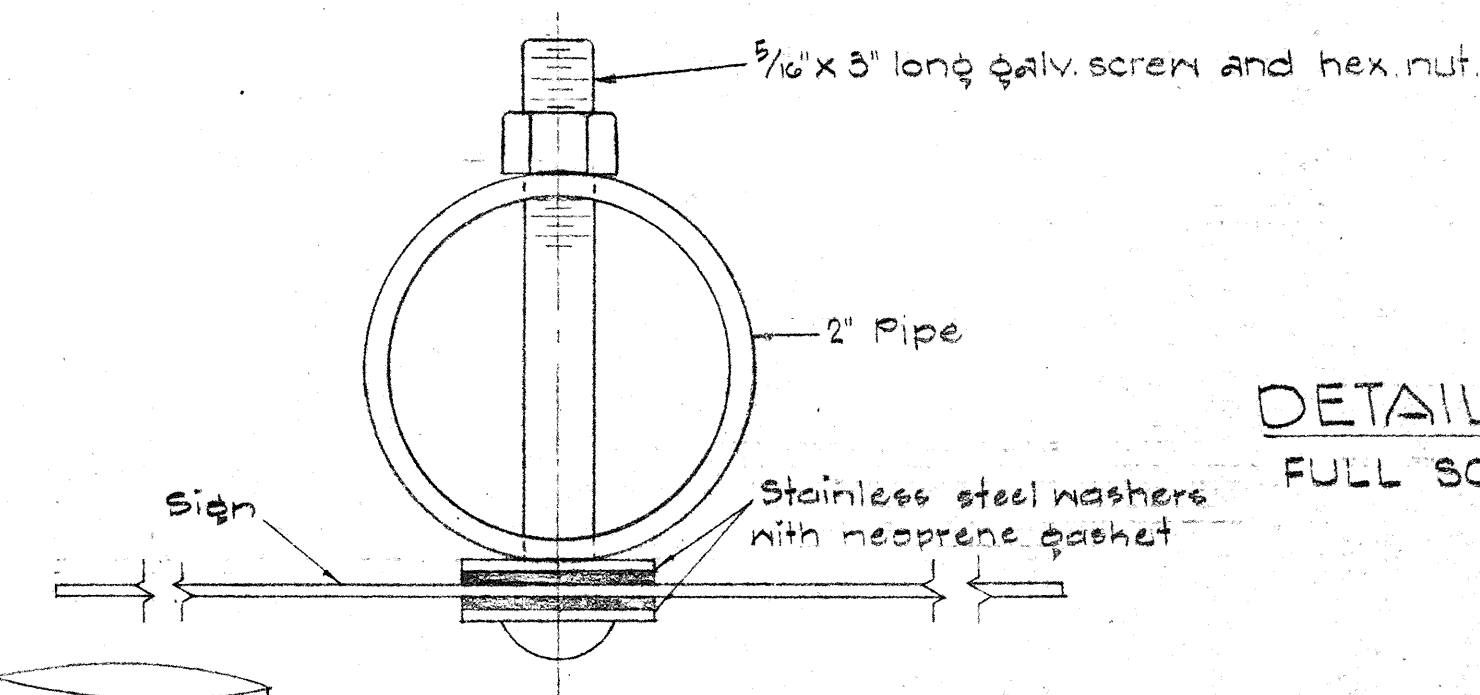


DETAIL "A"  
FULL SCALE

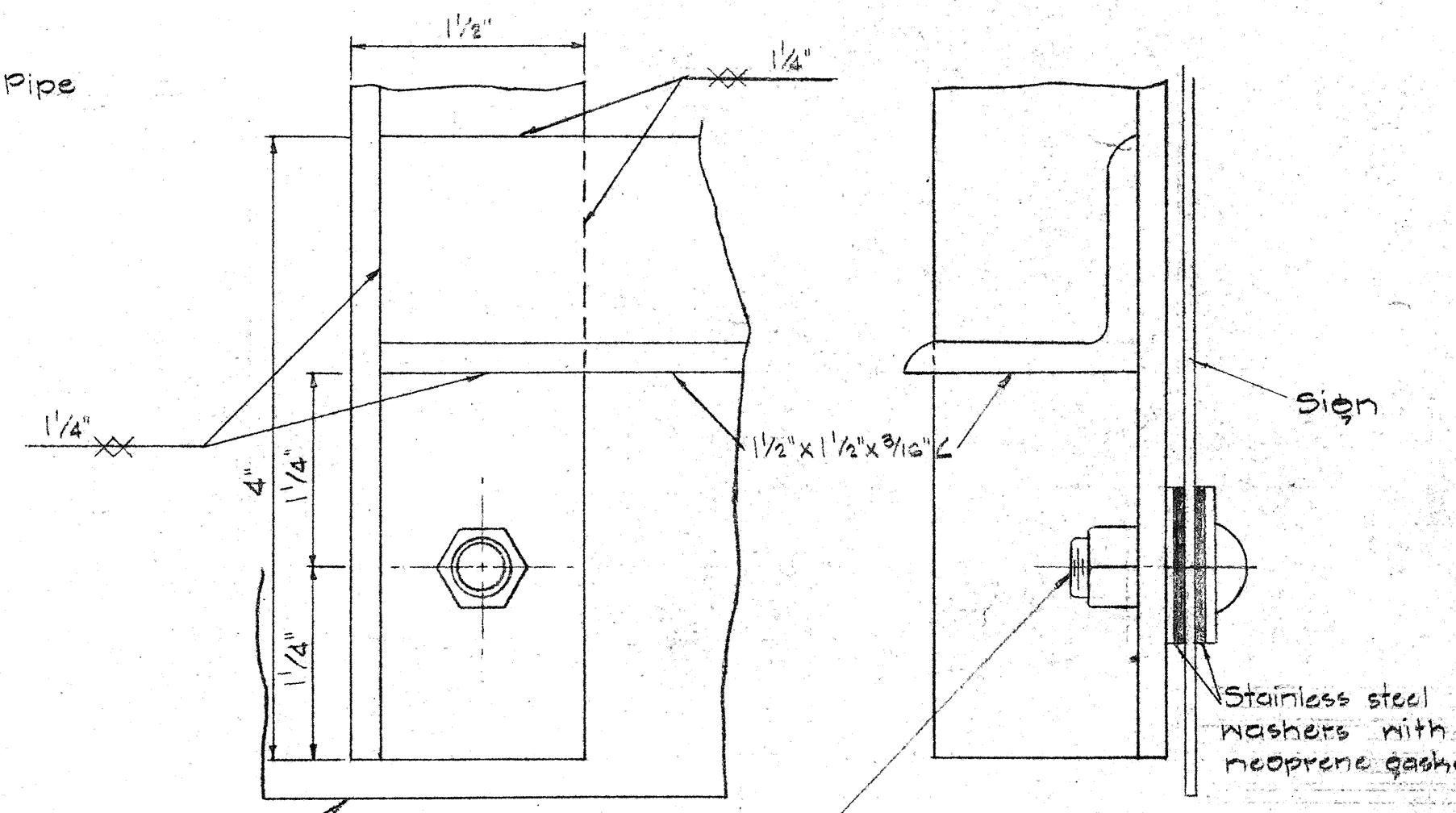
3/8" galvanized U-bolt and hex nut with galv washers on back.



DETAIL "B"  
FULL SCALE



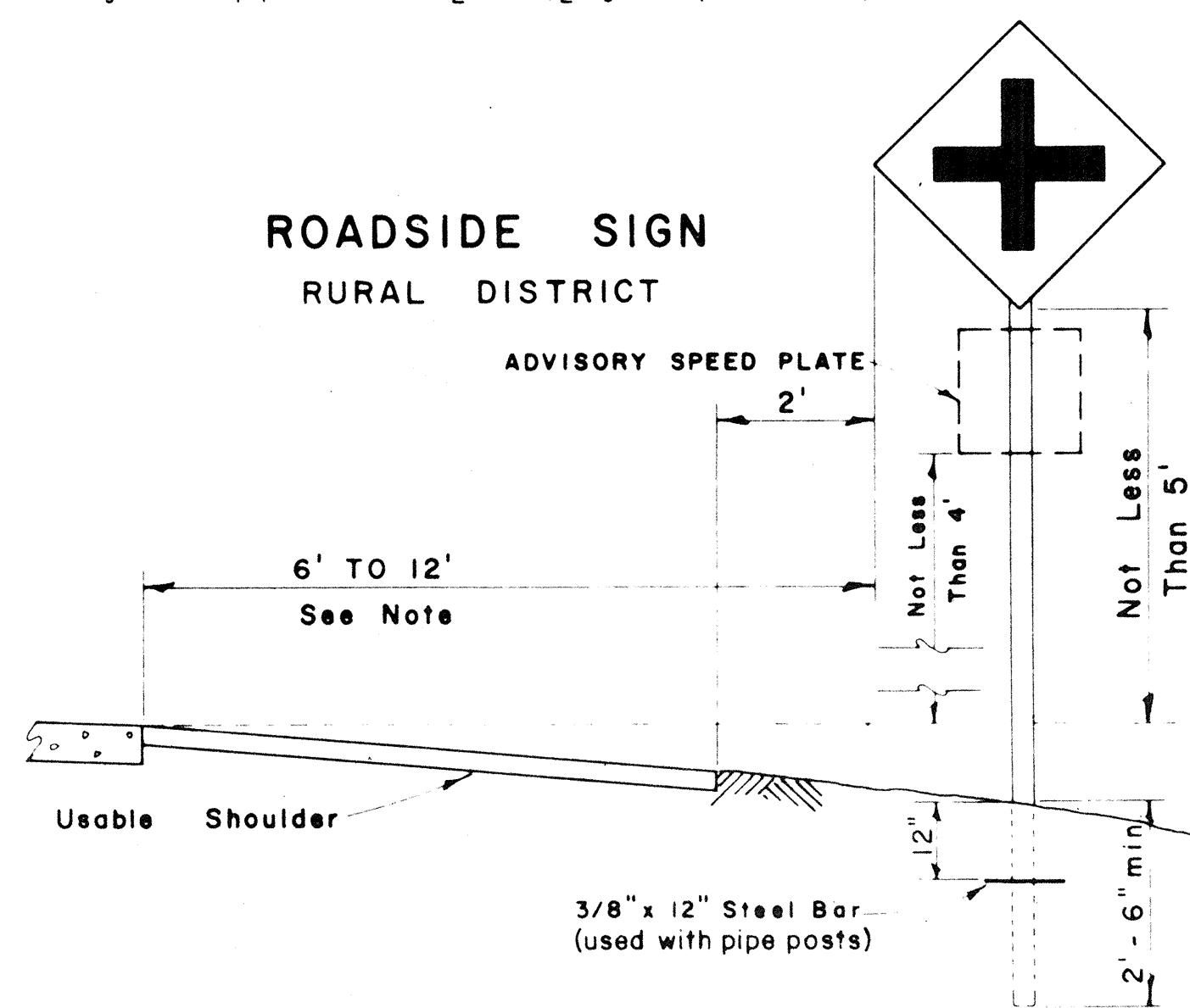
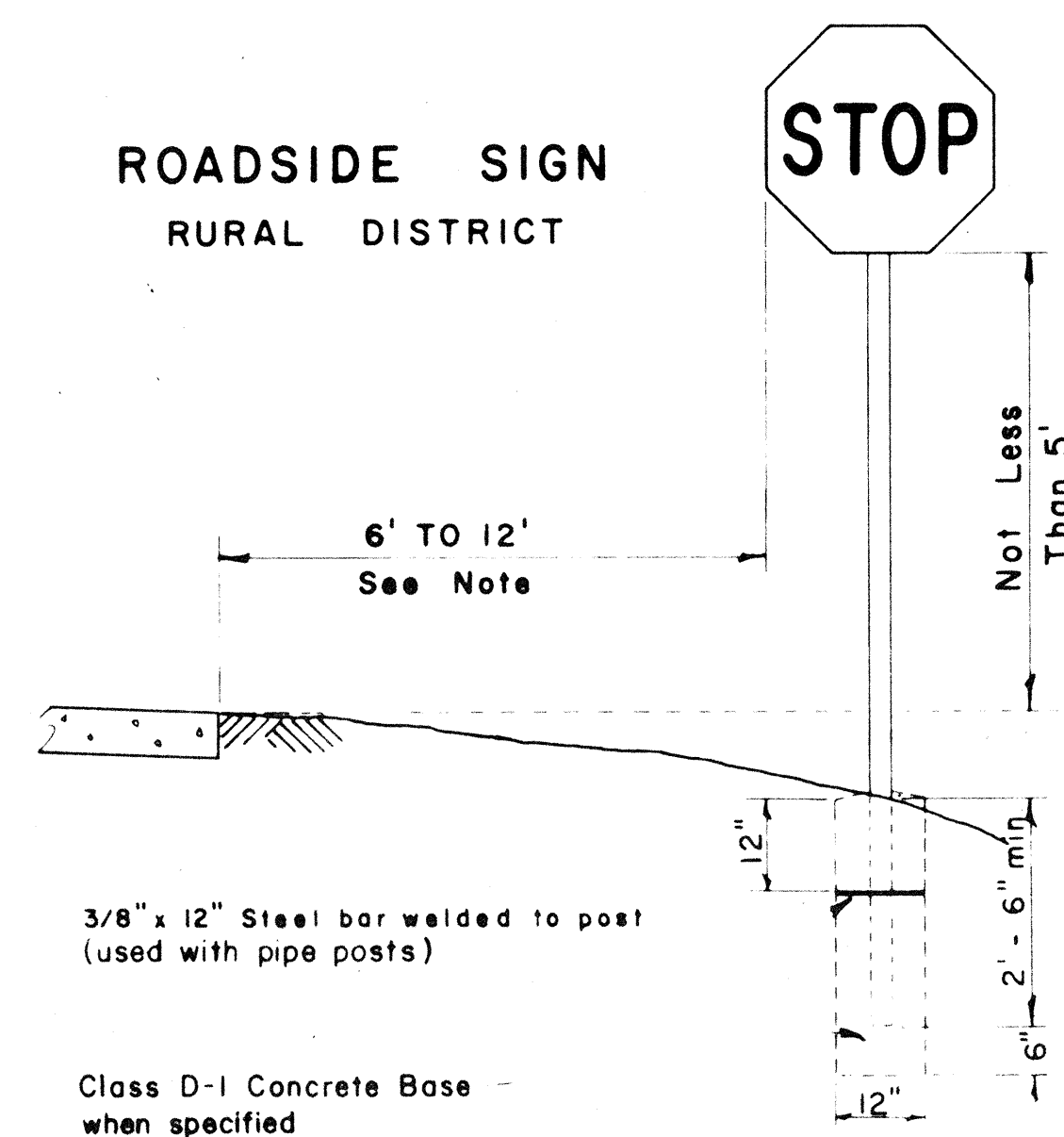
DETAIL "D"  
FULL SCALE



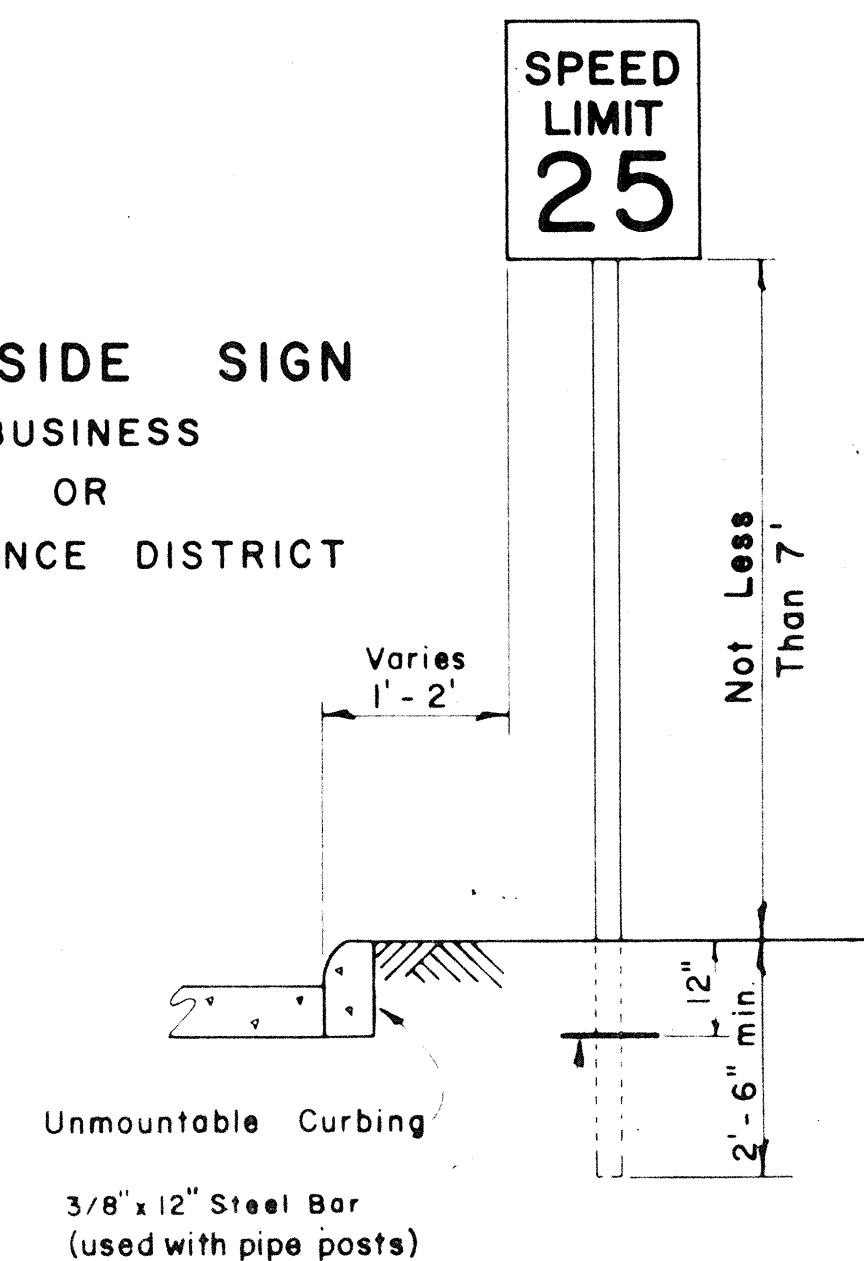
DETAIL "C"  
FULL SCALE

NOTE:  
For height and lateral location of Route Marker Assembly, see Sheet No. \_\_\_\_\_

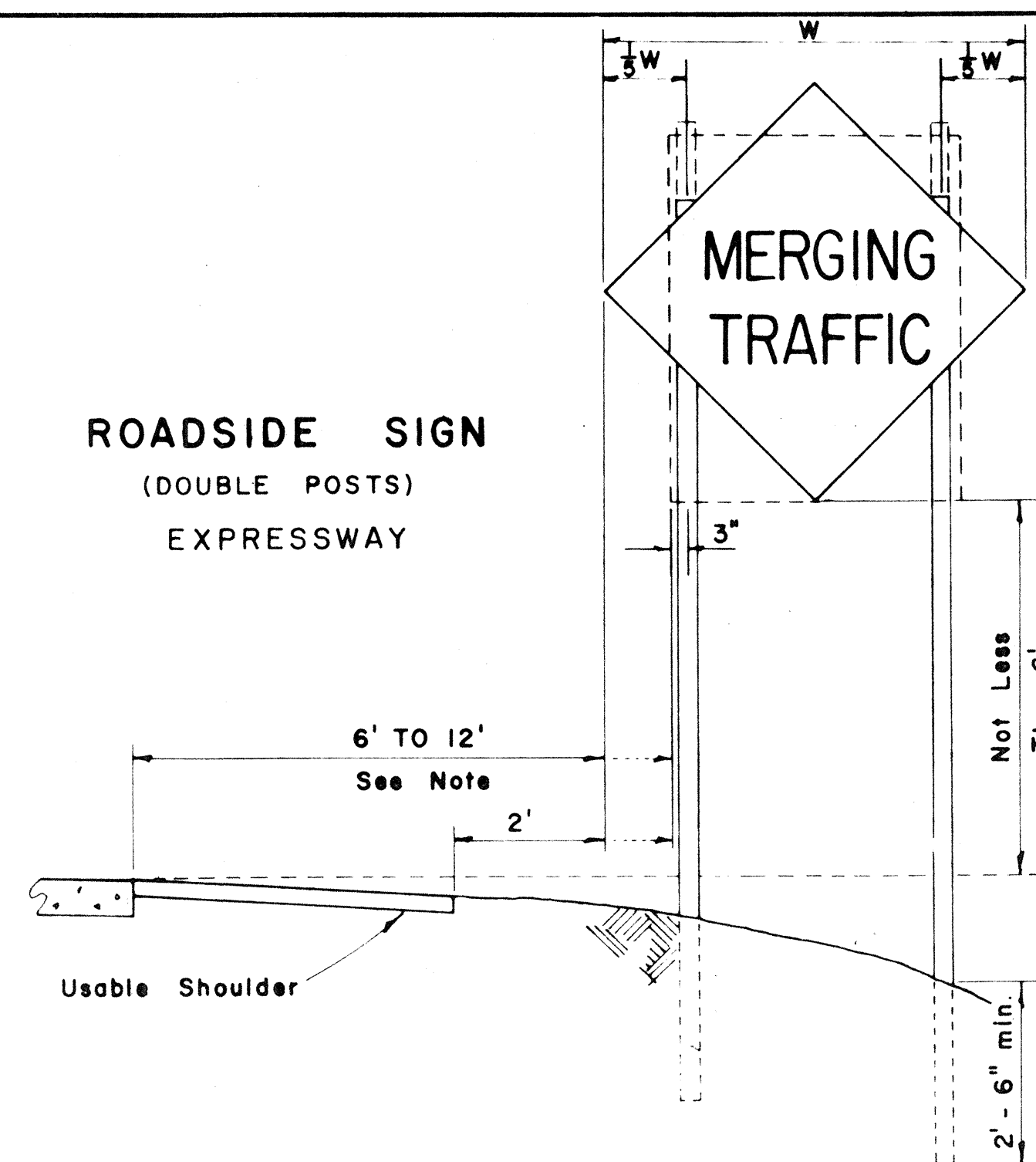
- NOTE:
- All signs and road delineators shall be placed 2' outside the usable roadway shoulder or 1' outside unmountable curbing present and within the limits shown below.
  - Except as noted below, sign posts shall be either 3" galv. std. pipe or 2 1/2" x 2 1/2" galv. square tube posts for signs larger than 24" in any dimension; 2" galv. std. pipe or 2" x 2" galv. square tube posts for signs 24" or less in any dimension.
  - Sign shall be attached to post with 5/16" galvanized bolts with nuts and 7/8" x 7/8" x .120" stainless-steel washers with neoprene rubber gasket.
  - Clearance Markers (RM-3, RM-4) shall be installed with the inside edge of the marker in line with the inner edge of the obstruction.
  - Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 3" galv. std. pipe or two 2 1/2" x 2 1/2" galv. square tube posts.



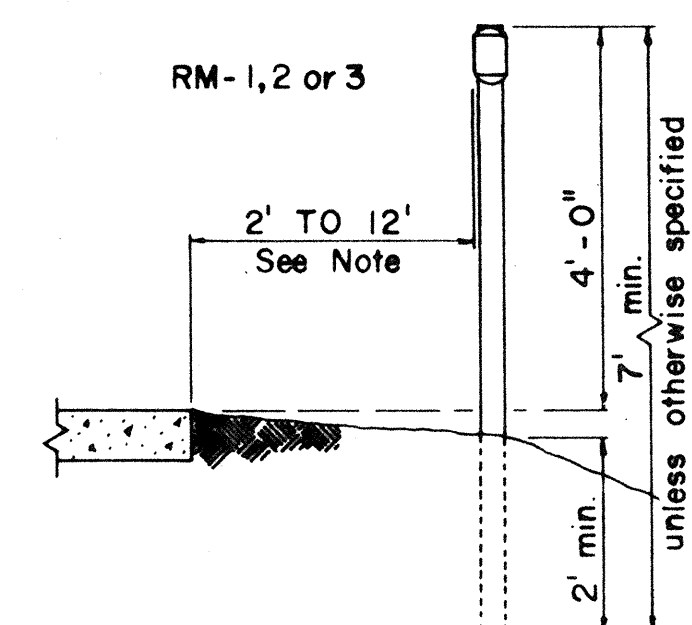
**ROADSIDE SIGN**  
BUSINESS  
OR  
RESIDENCE DISTRICT



**ROADSIDE SIGN**  
(DOUBLE POSTS)  
EXPRESSWAY

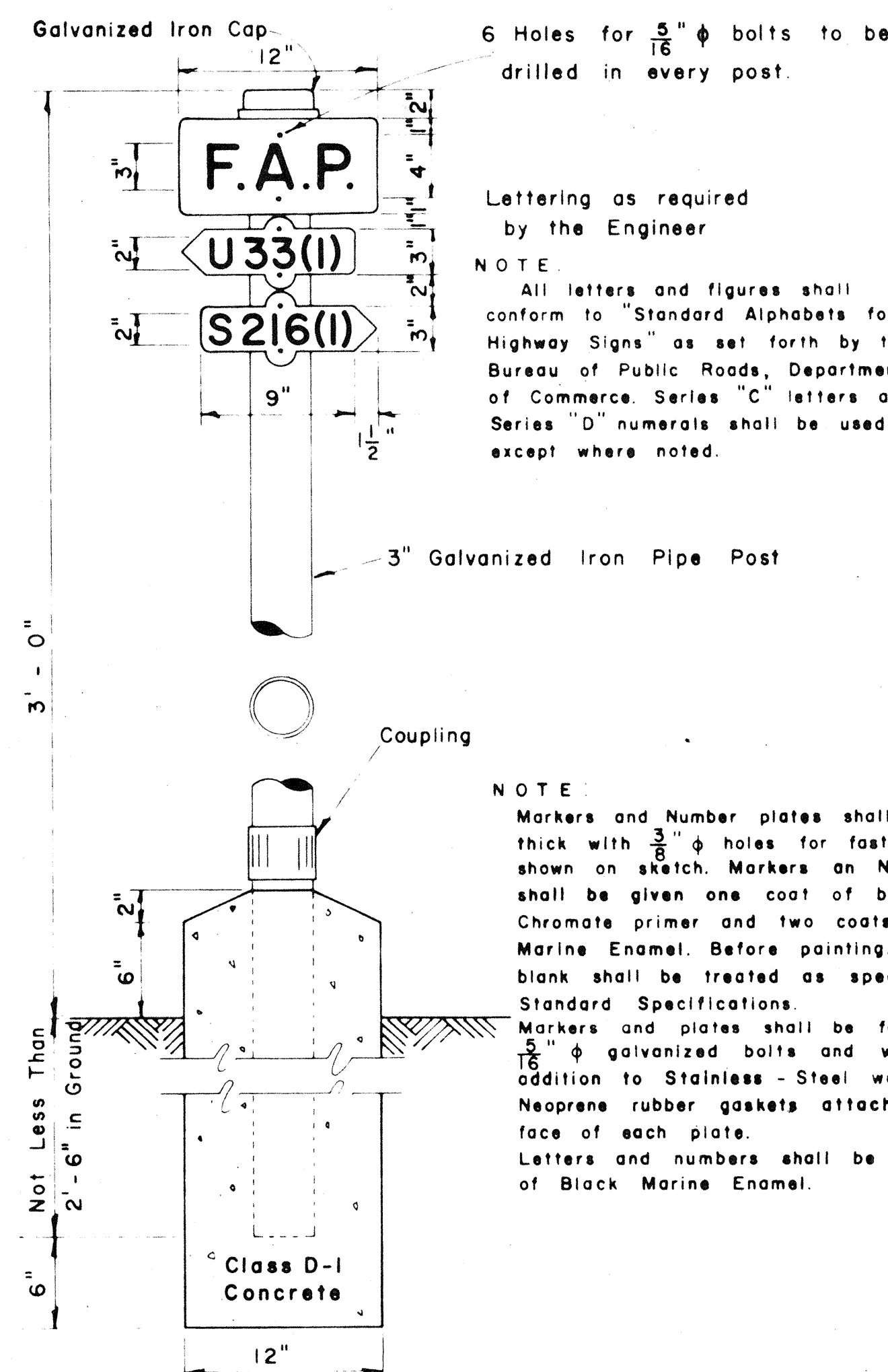


| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | F-075-1(3)         | 1966        | 36        | 42           |



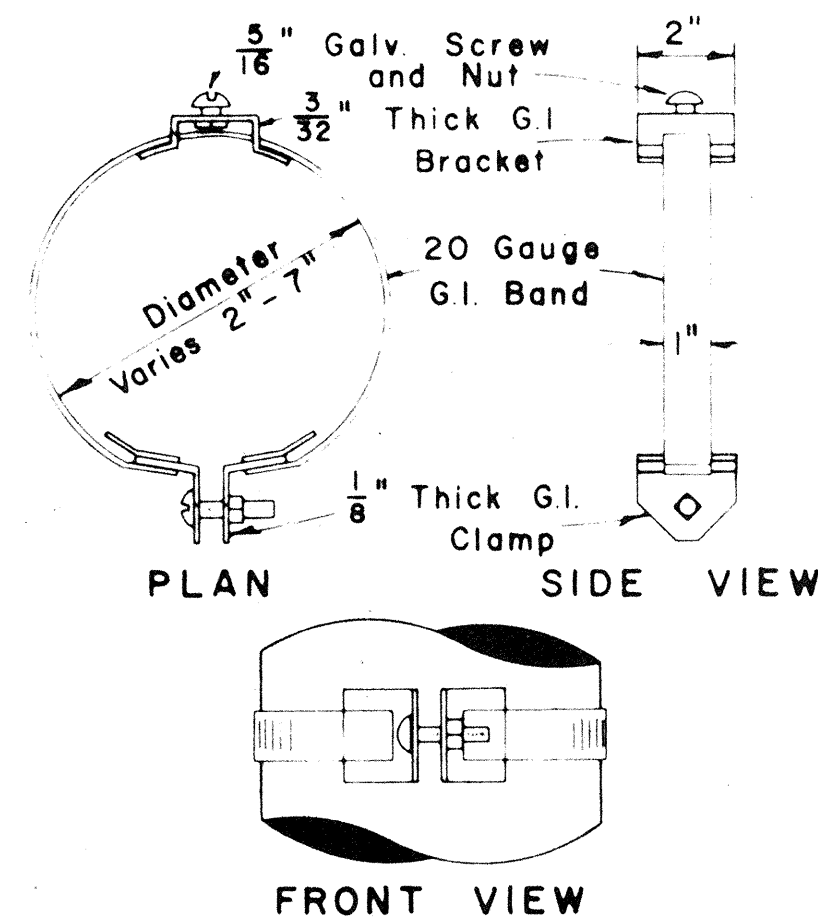
## HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS

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

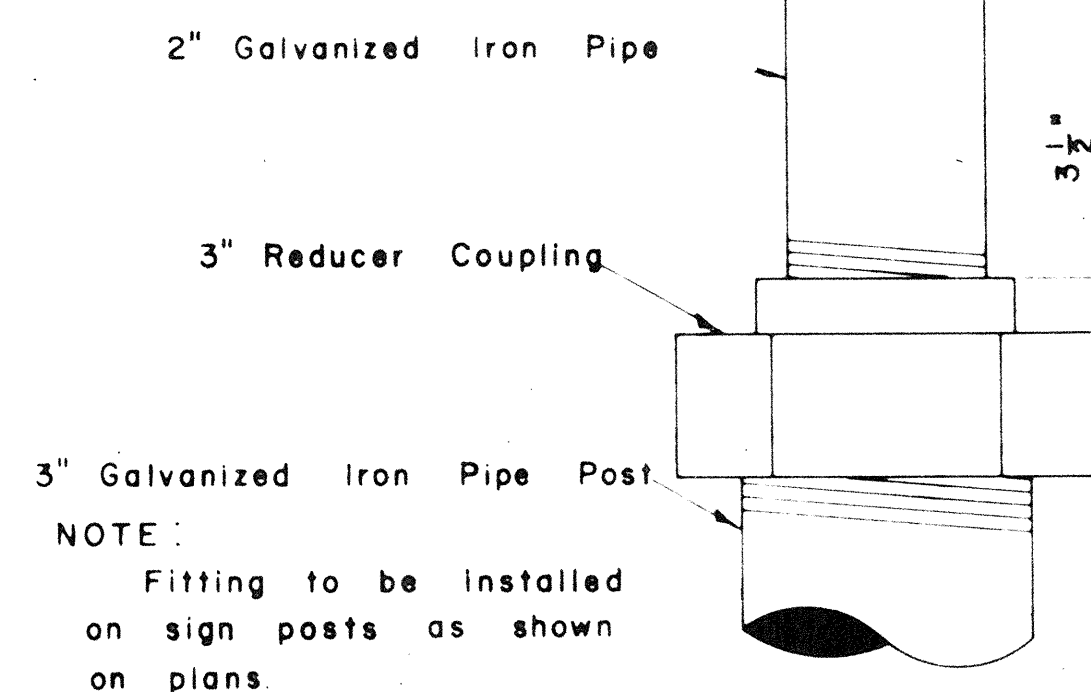


**FEDERAL AID MARKER**

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

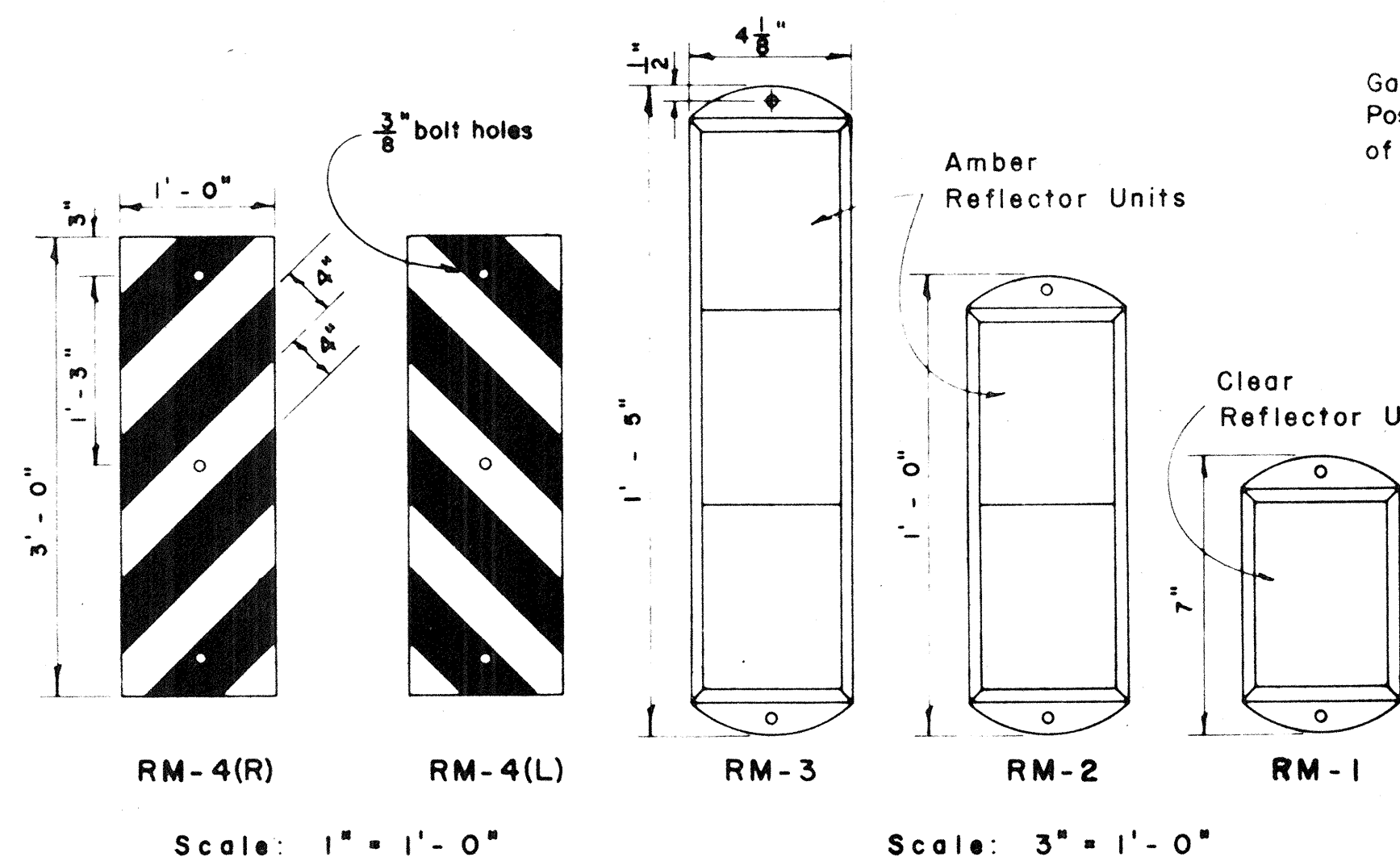


**TYPICAL BAND BRACKET FOR MOUNTING TRAFFIC SIGNS**



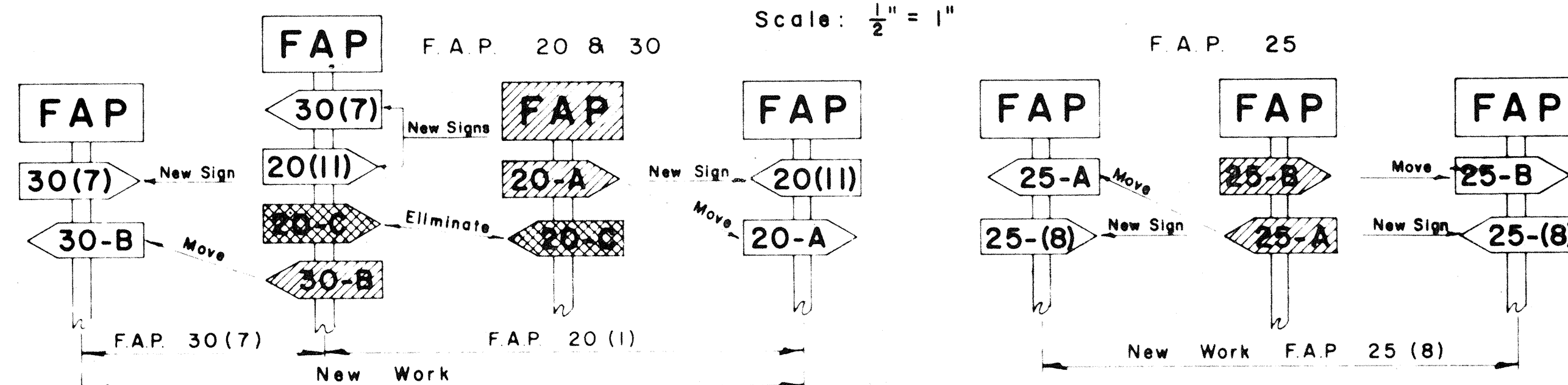
**DETAIL OF SIGN POST FITTING FOR CITY & COUNTY STREET NAME SIGNS**

Scale: 1/2" = 1"



**TYPICAL SECTION OF ROAD DELINEATOR**  
Full Size

NOTE: 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.



**METHOD OF MARKING F.A. PROJECTS AT OVERLAPS (USING NUMBER SUFFIX ON NEW WORK)**

APPROVED: \_\_\_\_\_ DATE: 11/1/64  
DIRECTOR OF TRANSPORTATION

DECEMBER 8, 1964  
REVISED: FEBRUARY 25, 1964

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**STANDARD DETAILS**  
F.A. MARKER  
AND  
MISCELLANEOUS SIGN  
DETAILS  
Scale: As Shown

SHEET No. 8 OF 8 SHEETS

36