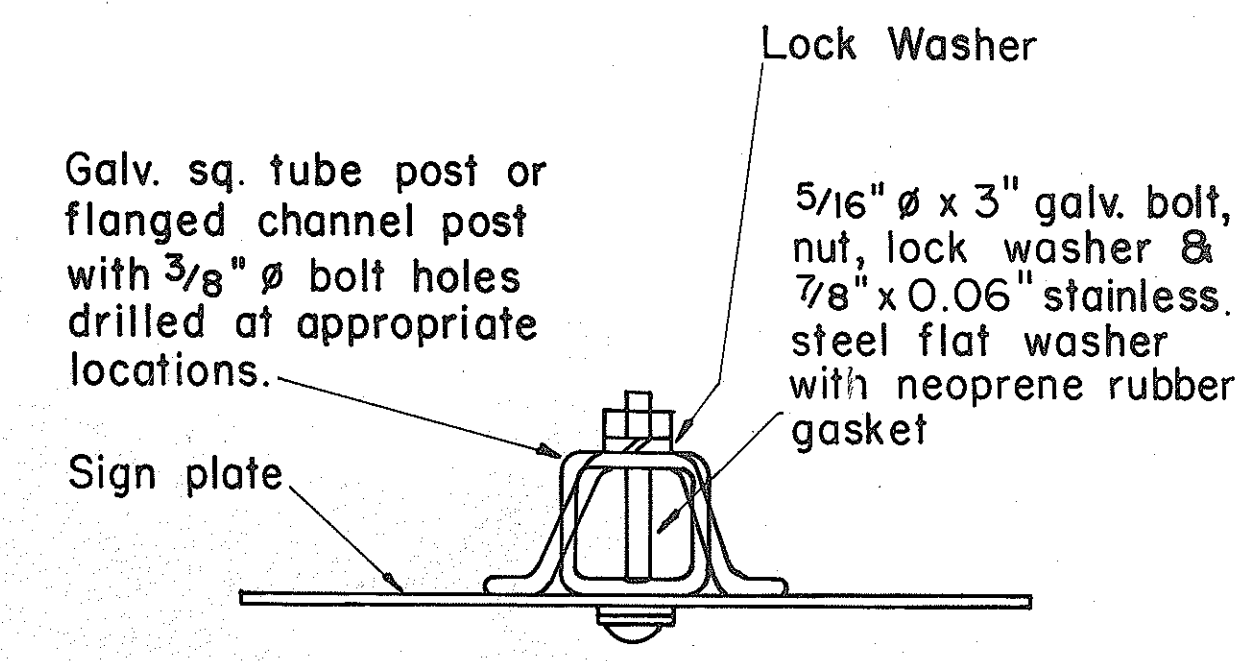


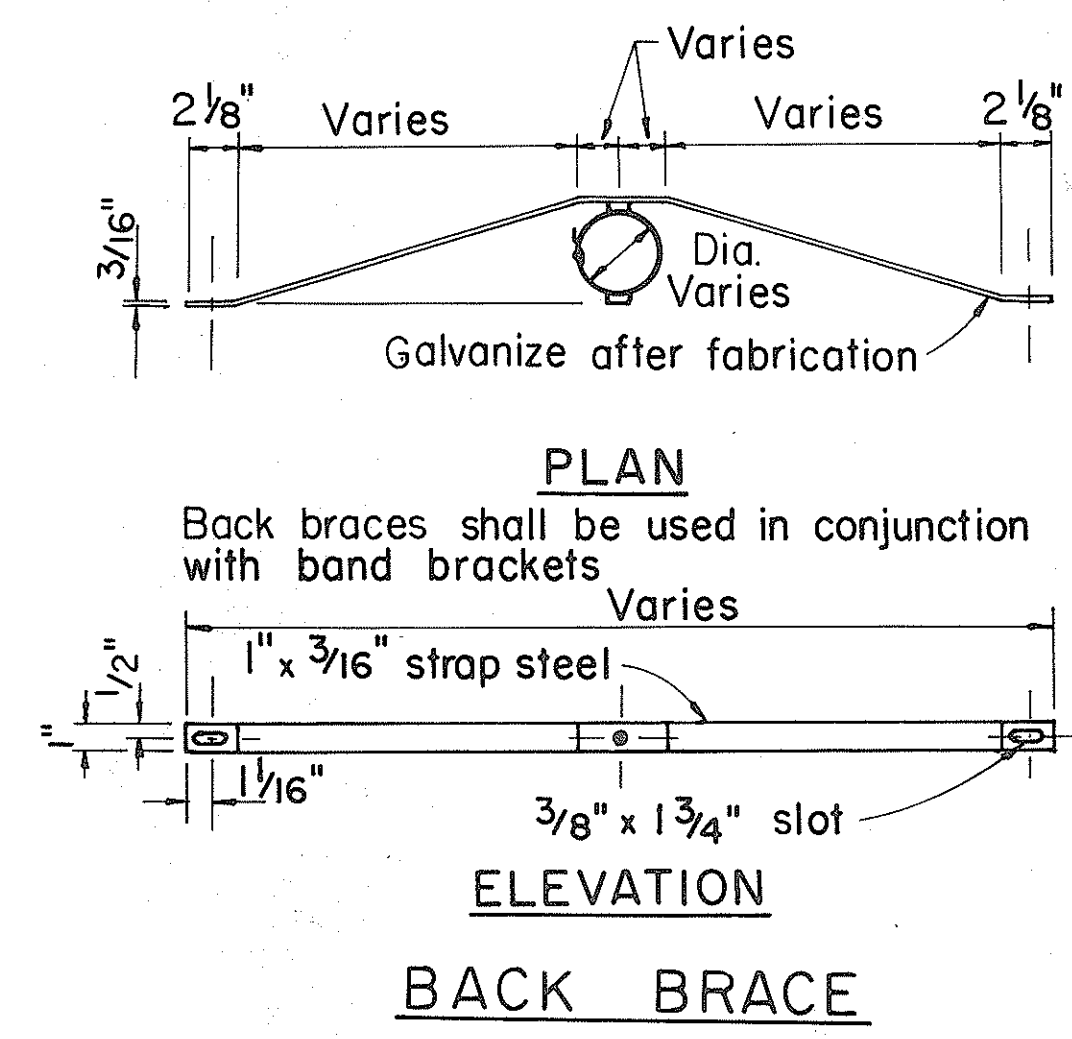
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | H11-02-85          | 1985        | 8         | 15           |

# GENERAL NOTES

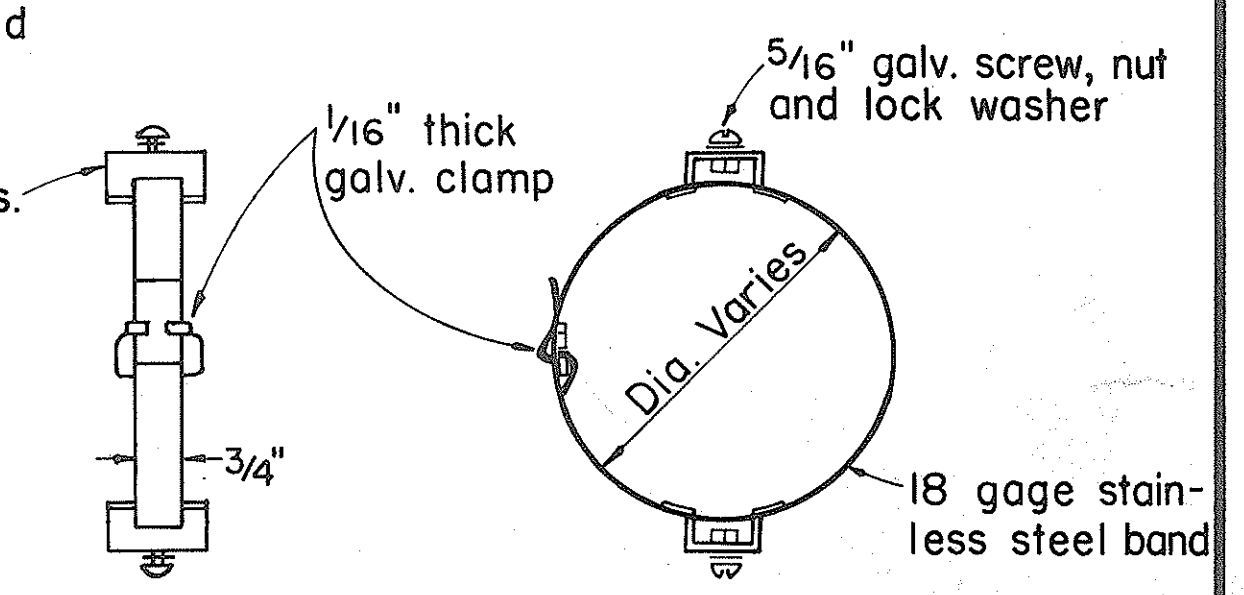
- Signs shall be placed in conformance with positions shown and described in the "Manual on Uniform Traffic Control Devices for Streets and Highways", 1978, Part II, Section 2A-21, as amended, and as supplemented herein.
- Sign 48" and wider or larger than 10 sq. ft. in area shall be mounted on two or more sign posts except as noted below.
- Signs 48" and wider or larger than 10 sq. ft. in area may be mounted on objects other than sign posts (i.e. on highway lighting poles) as follows:
  - Signs 48" and wider but less than 10 sq. ft. in area shall be mounted with a minimum of two sets of band bracket and back braces.
  - Signs larger than 10 sq. ft. and less than 28 sq. ft. in area shall be mounted with a minimum of two sets of band brackets and back braces.
  - Signs larger than 28 sq. ft. in area shall be mounted with a minimum of three sets of band bracket and back braces.
- All parking restriction signs with arrows shall be mounted 45° to the line of traffic flow.
- Sign posts shall extend 3 1/2" above each sign, where required, for attachment of City and County street name signs.
- (R) or (L) indicates right or left and shown on the plans.
- See plans for special details of signs along bikeways.
- The minimum lateral distances shown are guidelines and shall be exceeded whenever possible. The Contractor shall place signs at the maximum practical lateral distance from the edge of the traveled way up to 30 feet and shall utilize protected locations whenever possible. Final locations of all signs shall be approved by the Engineer.
- Signs in medians shall be placed at midpoint of median up to a maximum distance of 30 feet from the edge of traveled way. When appropriate, signs for opposing directions shall be placed back to back.
- Anchor bases shall be installed for all signpost installations, unless otherwise shown or directed. See sheets DT 100A and DT 100B.



## GALVANIZED SQUARE TUBE OR FLANGED CHANNEL POST



Additional. Required for bidirectional mounting or when used in conjunction with band brackets.



## LEFT SIDE VIEW BAND BRACKET

## TYPICAL MOUNTING DETAILS

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

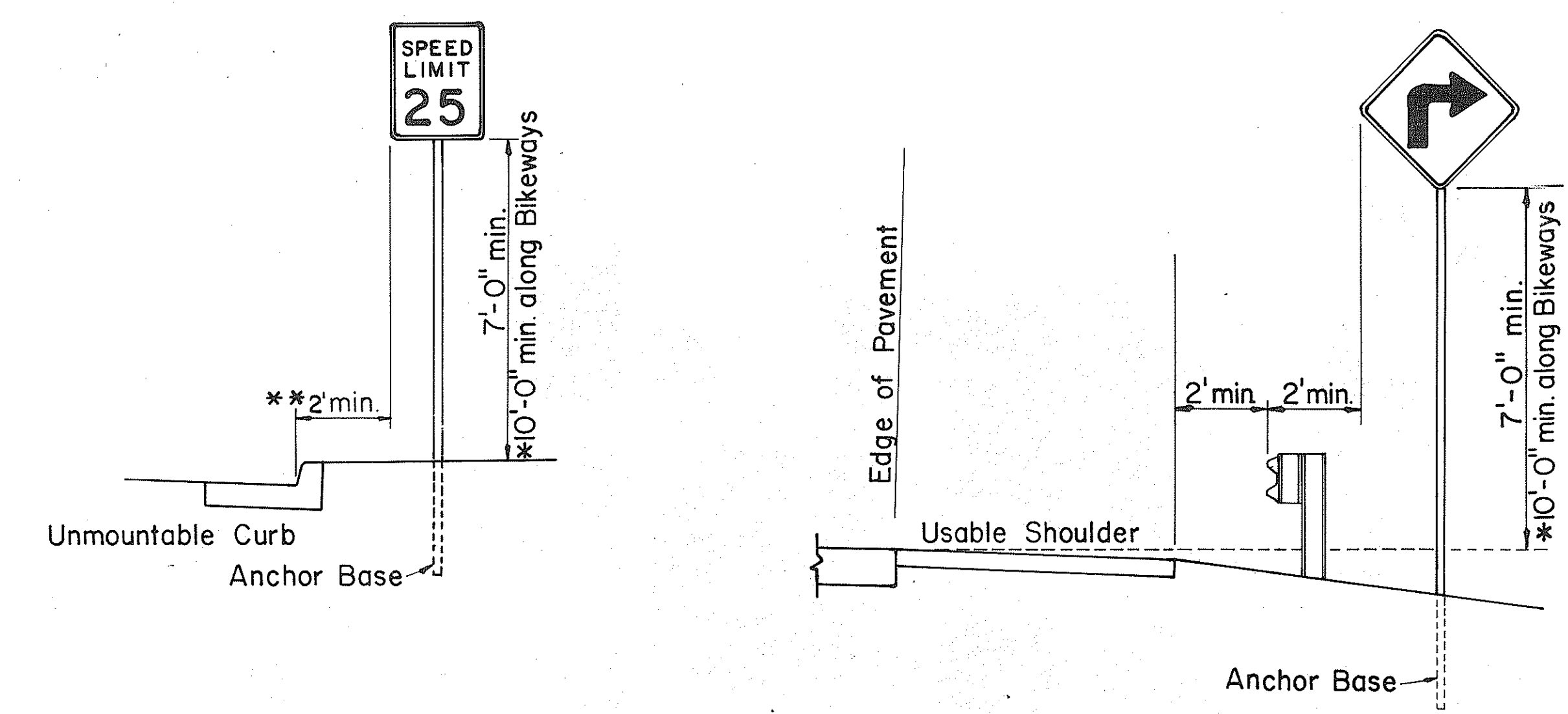
APPROVAL RECOMMENDED:  
*Eishi Tanaka* 10/14/83  
TRAFFIC ENGINEER DATE

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

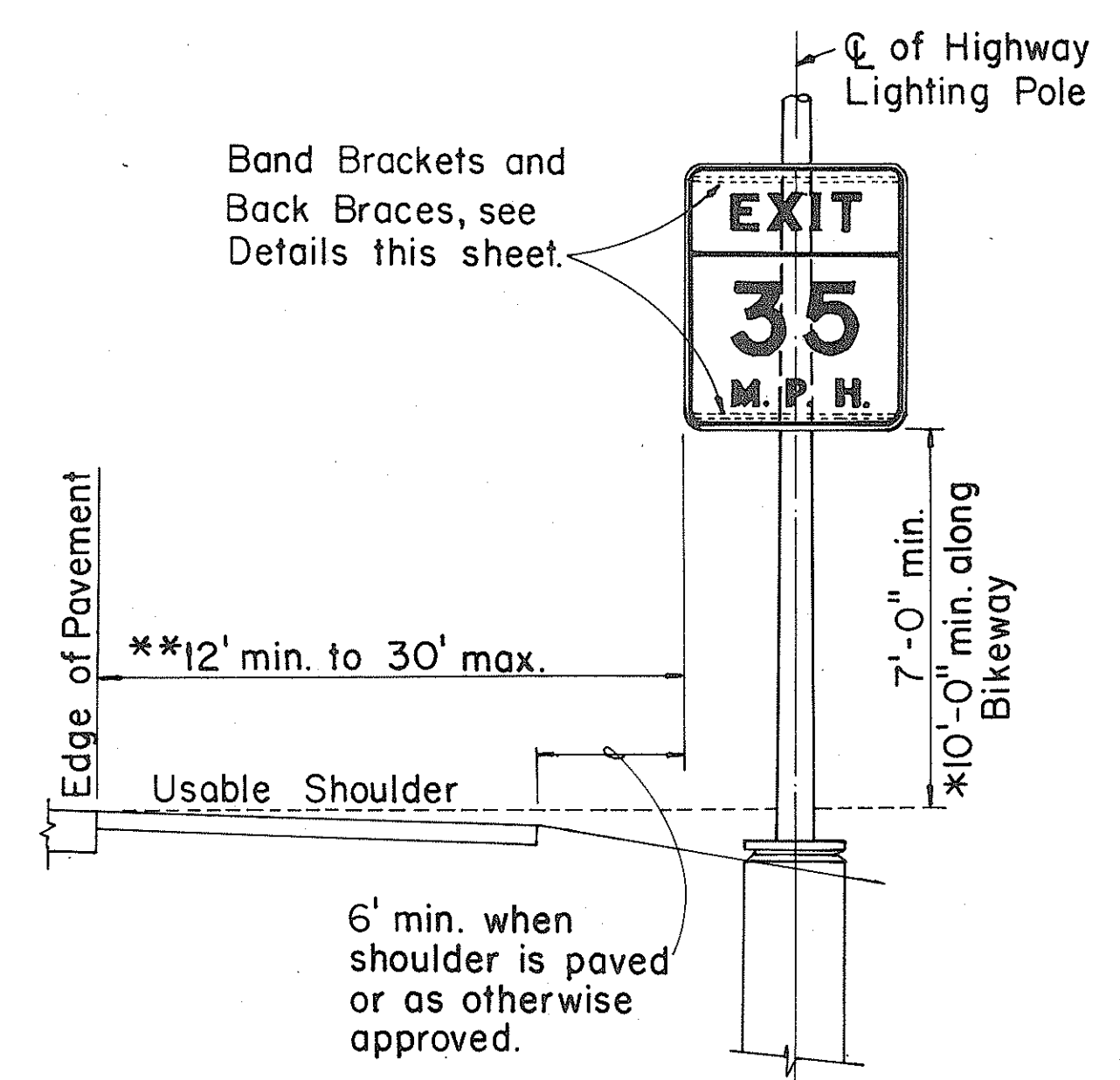
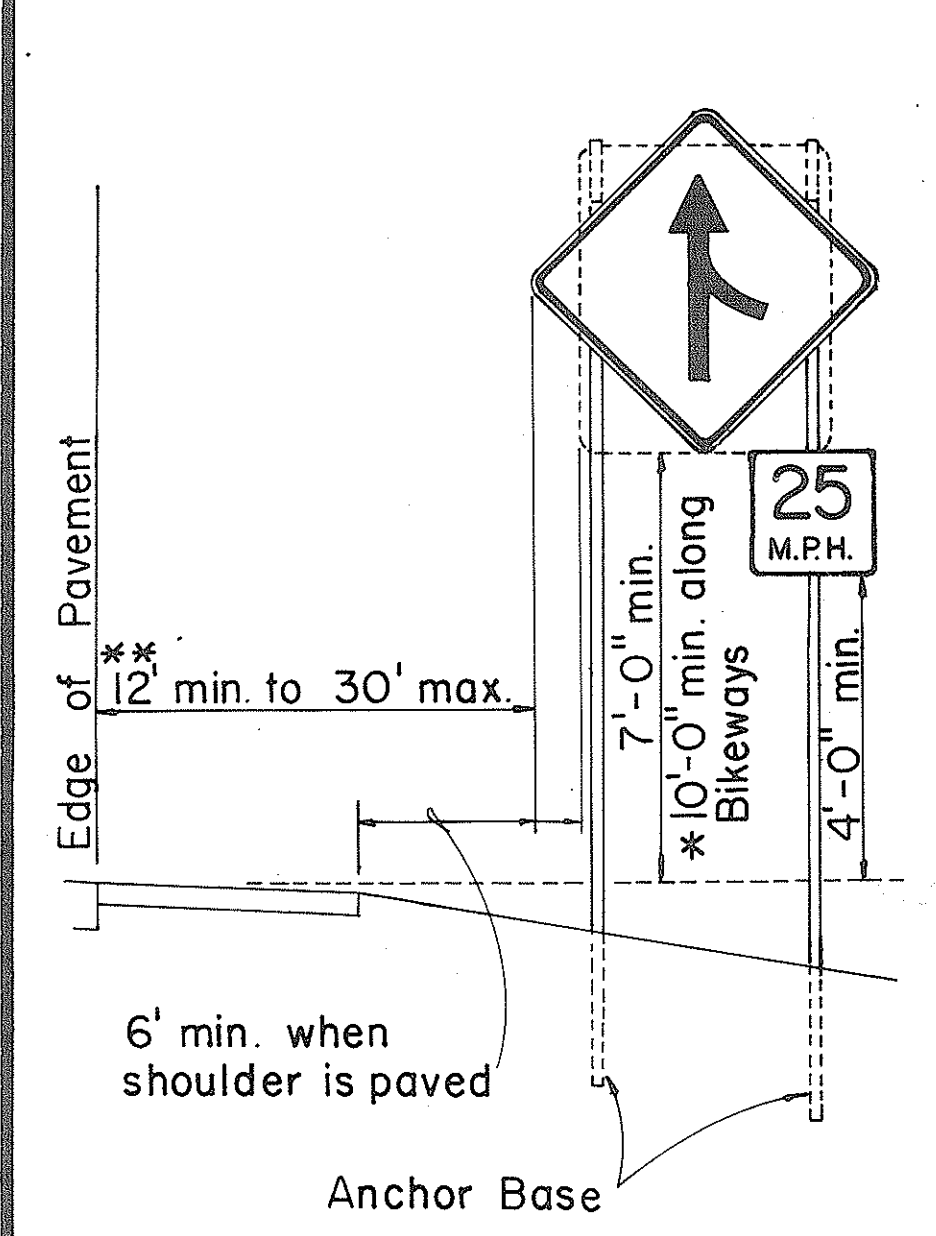
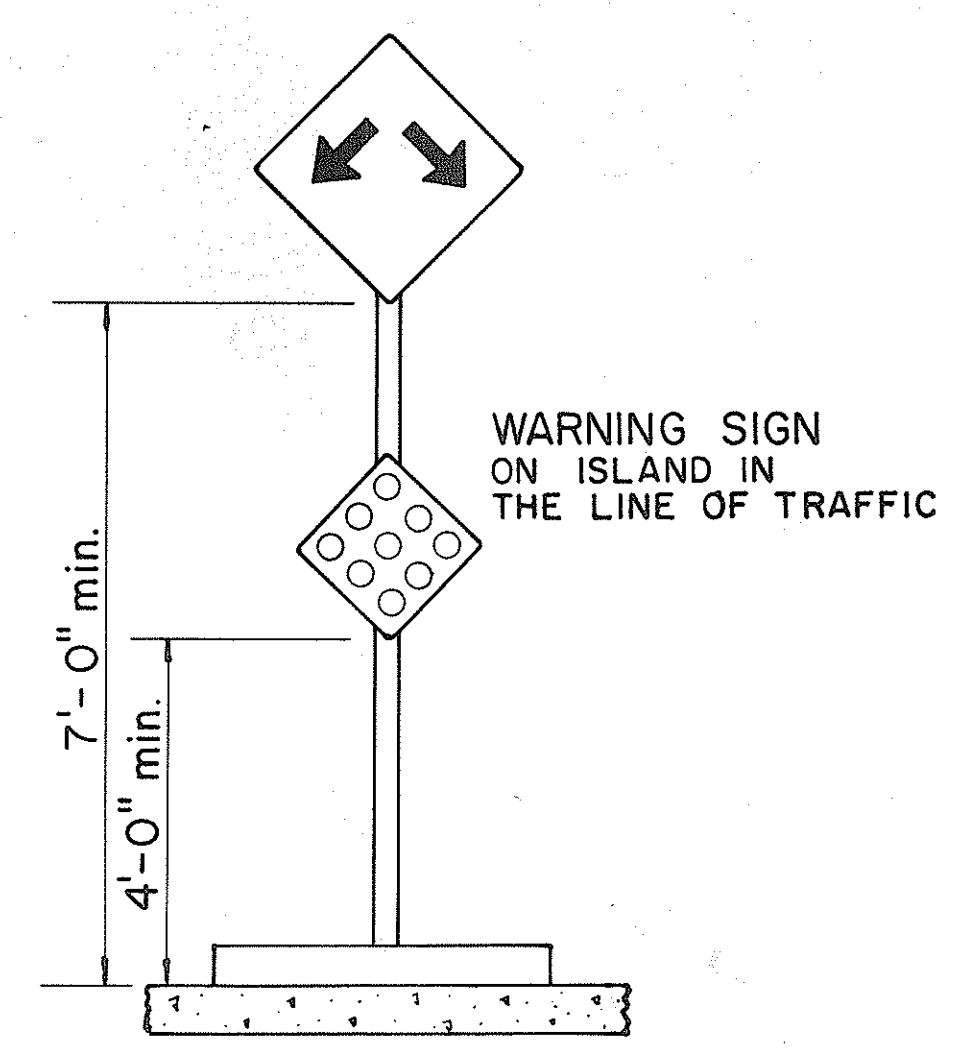
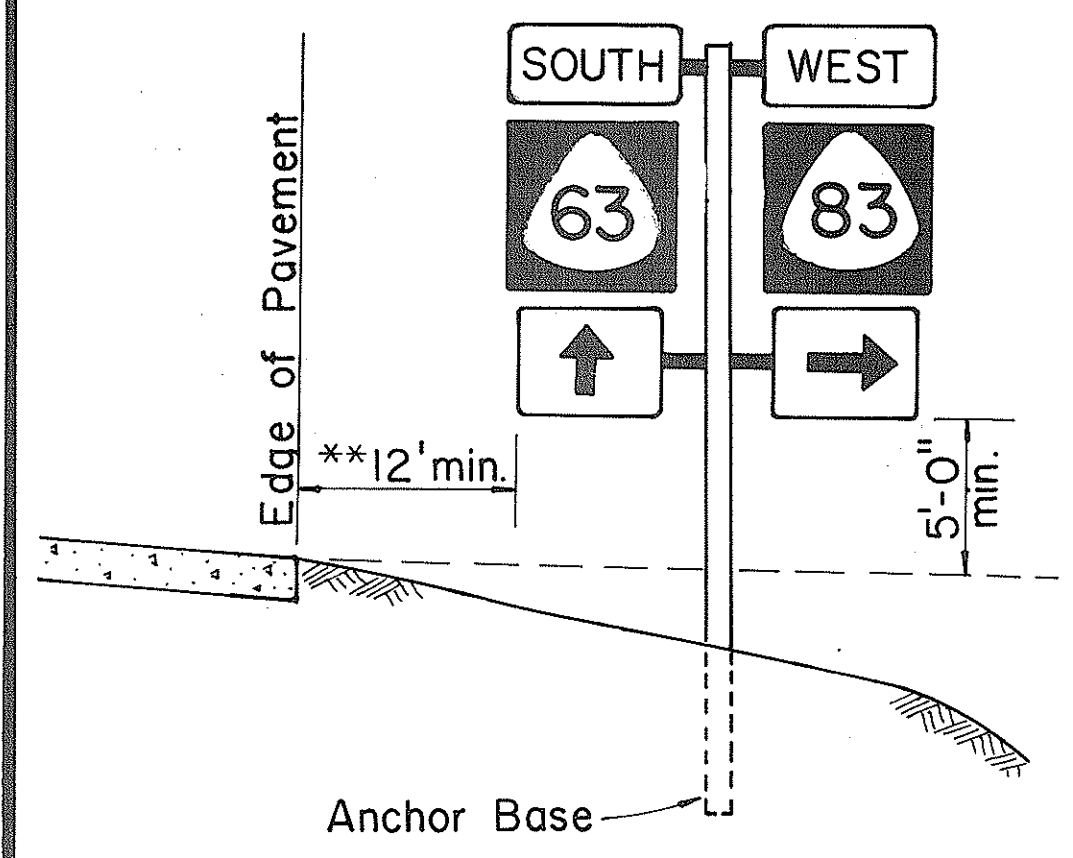
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

STANDARD DETAILS  
MISCELLANEOUS SIGN DETAILS

Not to Scale: Oct. 1983  
SHEET No. 15 OF 12 SHEETS DT 100



## ROADSIDE ASSEMBLY RURAL DISTRICT



## HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATION

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



| FED. ROAD DIST. NO. | STATE | FED-AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | HII-02-85         | 1985        | 9         | 15           |

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

NOTE: Frame stiffeners are required when D is greater than 24". See Gen. Note 4.

### GENERAL NOTES

- Sign posts and base posts shall be flanged channel type structural steel conforming to ASTM A 499 and galvanized in accordance with ASTM A 123.  
NOMINAL DIMENSIONS :  
2.50 lbs./ft. - 3.125" x 1.562"  
4.00 lbs./ft. - 3.500" x 1.750"
- Retainer - Spacer Strap shall be AISI 1020 steel and galvanized in accordance with ASTM A 123.
- Retainer and Connector Bolts shall be 5/16 - 18 UNC x 1.75" long hex. head, integral flange conforming to ASTM A 354 Grade BC. Nuts shall be 5/16 - 18 UNC hex. head, integral flange conforming to ASTM A 563 Grade D. All bolts and nuts shall be cadmium plated per Federal spec. QQP 416 B, Class 2, Type 2.
- All accessories, fittings and stiffener details (as required) shall be submitted to Engineer for approval 20 days prior to installation.
- For additional details see sht. DT 100.
- Basic formulas for use with the windload charts:  
Factor =  $A \times B \times H$   
Therefore, if sign area (A x B) is known,  
Maximum H =  $\frac{\text{Factor}}{\text{sign area (A x B)}}$   
and if H is known,  
Maximum sign area (A x B) =  $\frac{\text{Factor}}{H}$

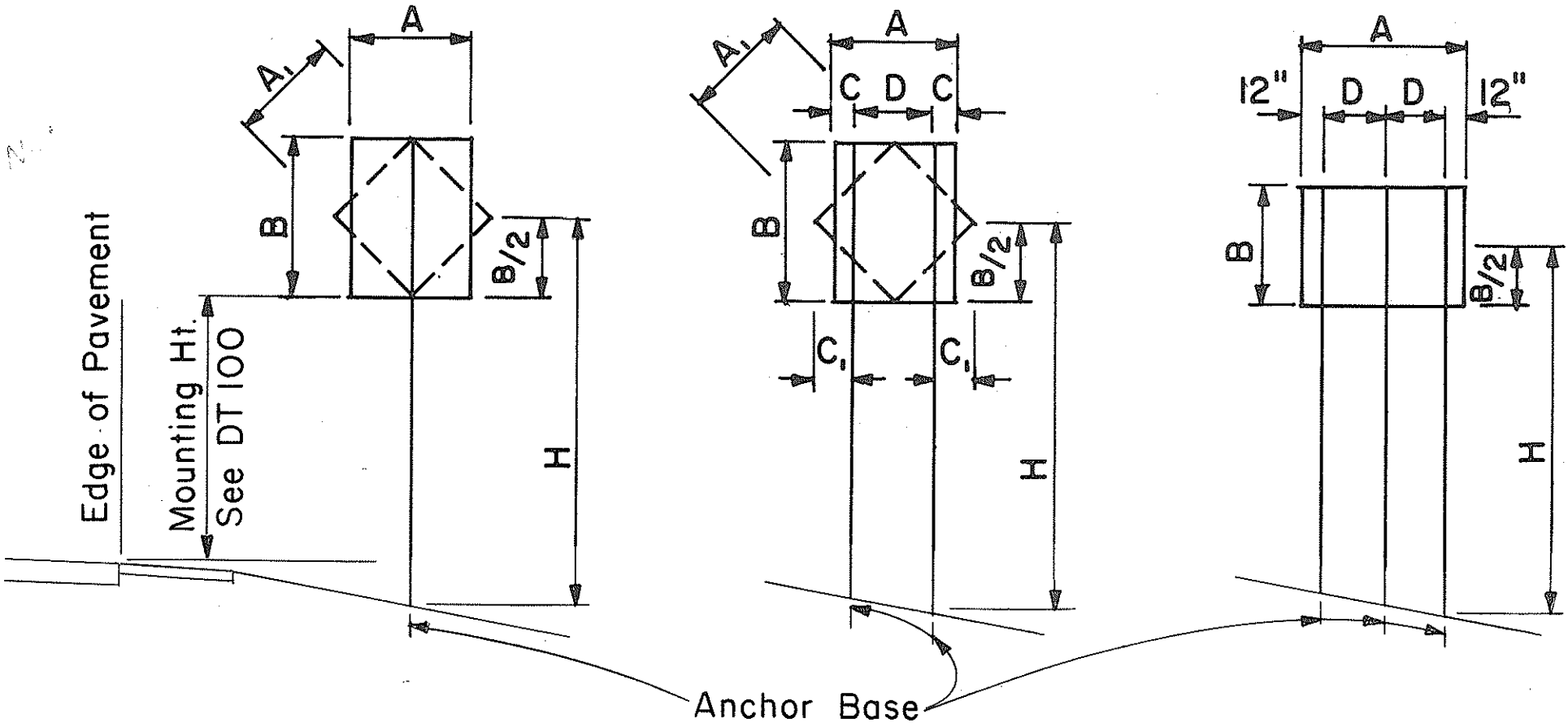
APPROVAL RECOMMENDED:

*Eishi Tanaka* 9/21/82  
TRAFFIC ENGINEER DATE

APPROVED:  
*Richard J. Schuler* 9/22/82  
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
  
STANDARD DETAILS  
GALVANIZED FLANGED CHANNEL  
SIGN POST MOUNTING

Scale: As Shown Date: Sept. 1982  
SHEET No. 16 OF 18 SHEETS DT 100A



**1-POST** Sign area 10 sq. ft. and less  
**2-POST** Sign area greater than 10 sq. ft. or A= 48" - 60"  
**3-POST** A = greater than 60"

### TYPICAL INSTALLATION

Not to Scale

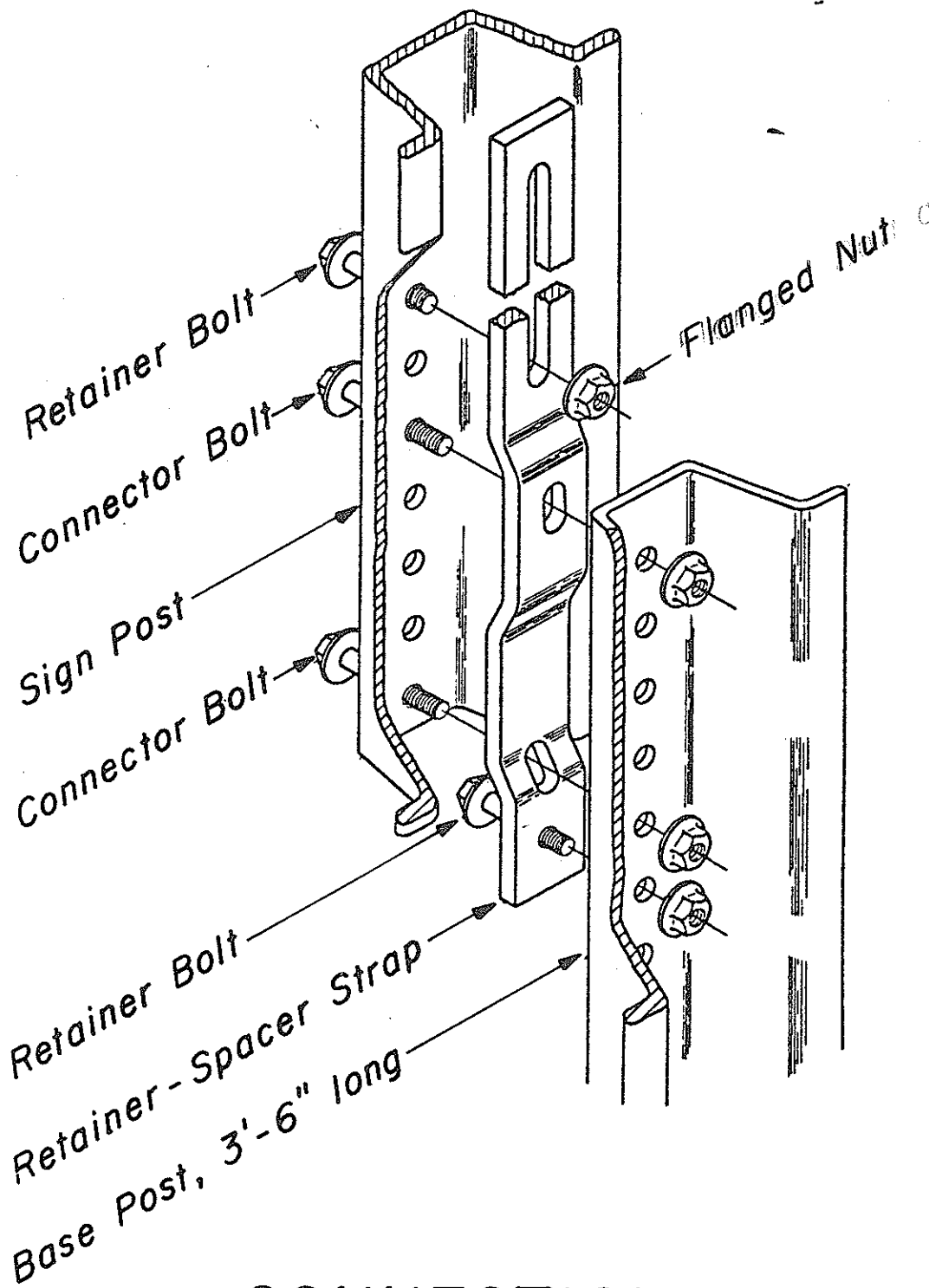
| FLANGED CHANNEL: 1-POST INSTALLATION |                    |                                    |      |      |      |      |                       |
|--------------------------------------|--------------------|------------------------------------|------|------|------|------|-----------------------|
| Post Size                            | A x B x H (Factor) | H = Ground Level to Midpoint (ft.) |      |      |      |      |                       |
|                                      |                    | 7                                  | 8    | 9    | 10   | 11   | 12                    |
| 2.50 lbs./ft.                        | 57                 | 8.14                               | 7.13 | 6.33 | 5.70 | 5.18 | 4.75                  |
| 4.00 lbs./ft.                        | 112                | -                                  | -    | -    | -    | -    | 9.33                  |
|                                      |                    |                                    |      |      |      |      | A x B (Area, sq. ft.) |

| FLANGED CHANNEL: 2-POST INSTALLATION |                    |                                    |       |       |       |       |                       |
|--------------------------------------|--------------------|------------------------------------|-------|-------|-------|-------|-----------------------|
| Post Size                            | A x B x H (Factor) | H = Ground Level to Midpoint (ft.) |       |       |       |       |                       |
|                                      |                    | 7                                  | 8     | 9     | 10    | 11    | 12                    |
| 2.50 lbs./ft.                        | 124                | 17.71                              | 15.50 | 13.77 | 12.40 | 11.27 | 10.33                 |
| 4.00 lbs./ft.                        | 241                | 34.43                              | 30.13 | 26.78 | 24.10 | 21.91 | 20.08                 |
|                                      |                    |                                    |       |       |       |       | A x B (Area, sq. ft.) |

| FLANGED CHANNEL: 3-POST INSTALLATION |                    |                                    |       |       |       |       |                       |
|--------------------------------------|--------------------|------------------------------------|-------|-------|-------|-------|-----------------------|
| Post Size                            | A x B x H (Factor) | H = Ground Level to Midpoint (ft.) |       |       |       |       |                       |
|                                      |                    | 7                                  | 8     | 9     | 10    | 11    | 12                    |
| 2.50 lbs./ft.                        | 187                | 26.71                              | 23.38 | 20.78 | 18.70 | 17.00 | 15.58                 |
| 4.00 lbs./ft.                        | 362                | 51.71                              | 45.25 | 40.22 | 36.20 | 32.91 | 30.17                 |
|                                      |                    |                                    |       |       |       |       | A x B (Area, sq. ft.) |

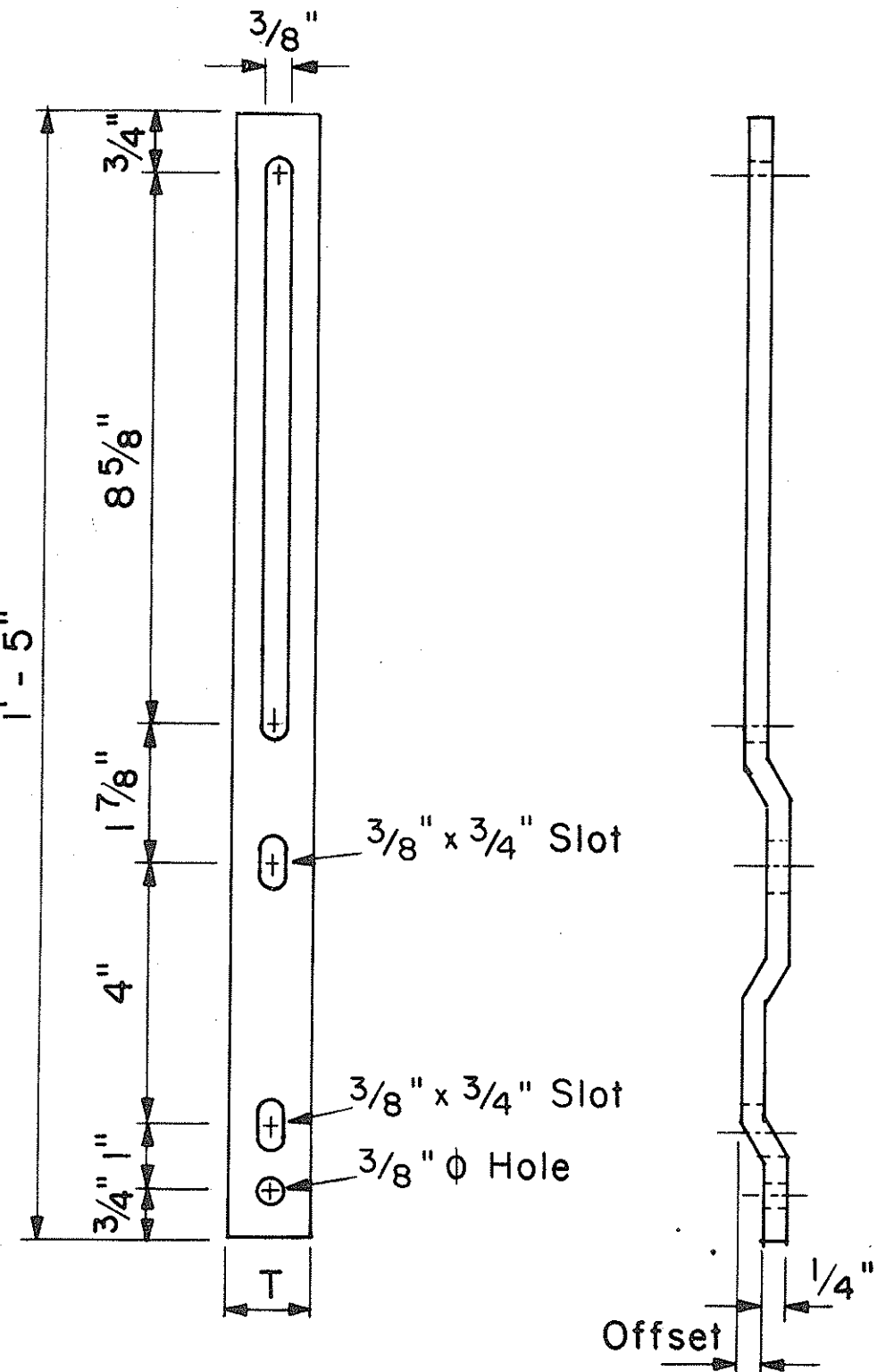
### WINDLOAD CHARTS

| NO. | REVISION | APPROVED BY | DATE |
|-----|----------|-------------|------|
|     |          |             |      |



### CONNECTION DETAIL

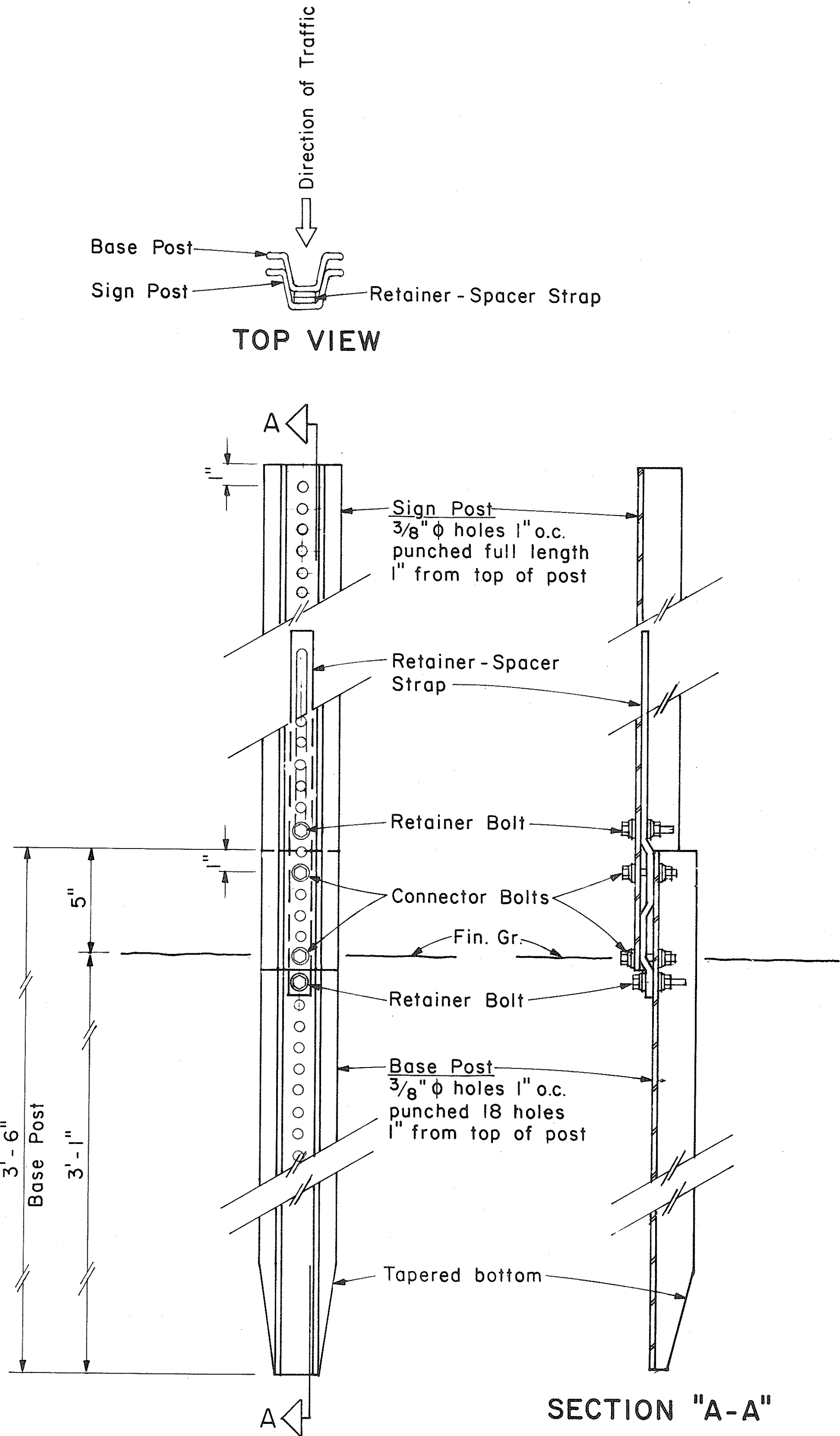
Not to Scale



### RETAINER-SPACER STRAP

Not to Scale

| RETAINER-SPACER STRAP |       |        |
|-----------------------|-------|--------|
| Post Size             | T     | Offset |
| 2.50 lbs./ft.         | 1.00" | 0.145" |
| 4.00 lbs./ft.         | 1.12" | 0.280" |



### BACK VIEW

### ANCHOR BASE DETAIL

Scale: 3" = 1'-0"

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



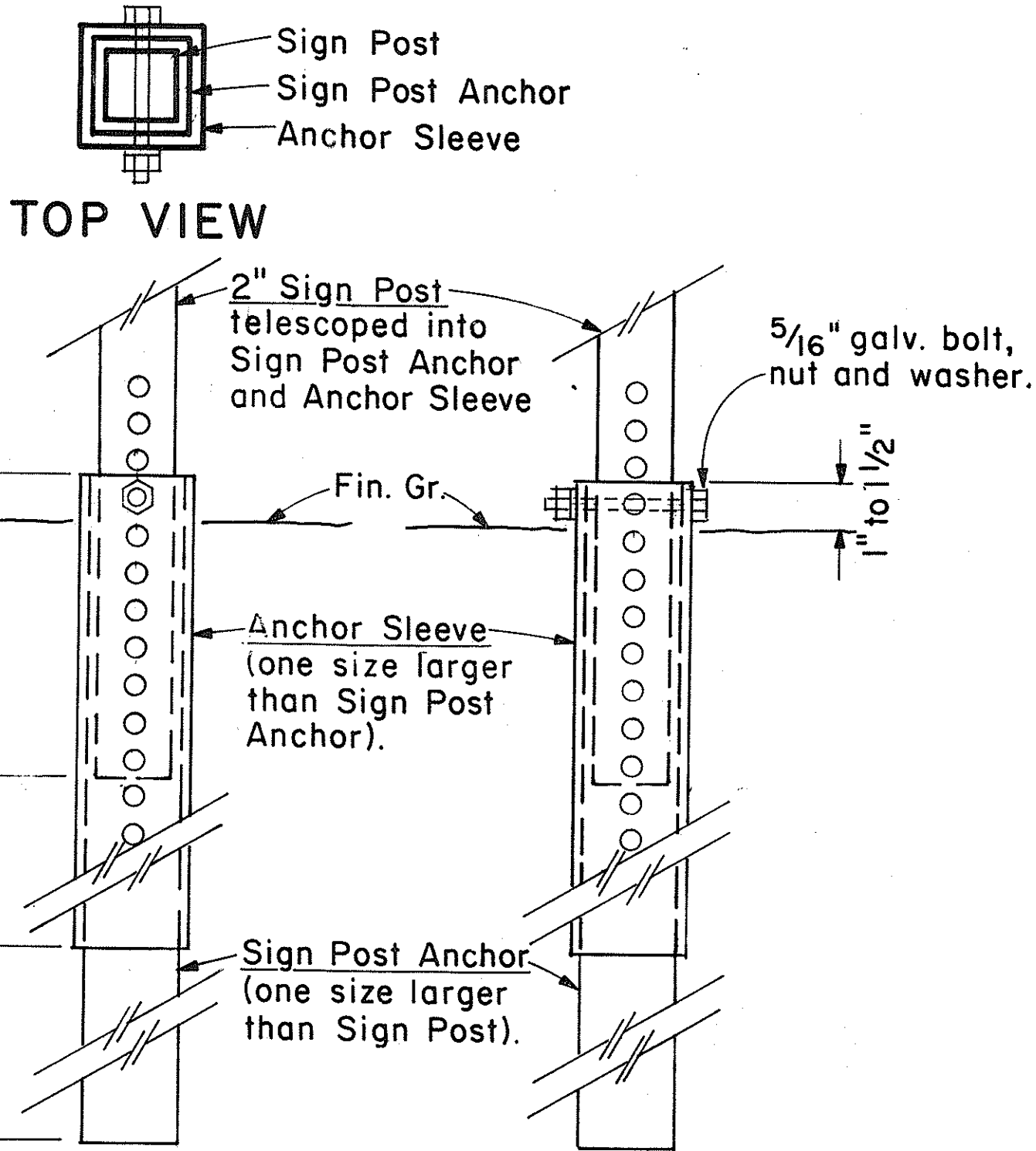
| FED. ROAD DIST. NO. | STATE | FED-AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | H11-02-85         | 1985        | 10        | 15           |

# GENERAL NOTES

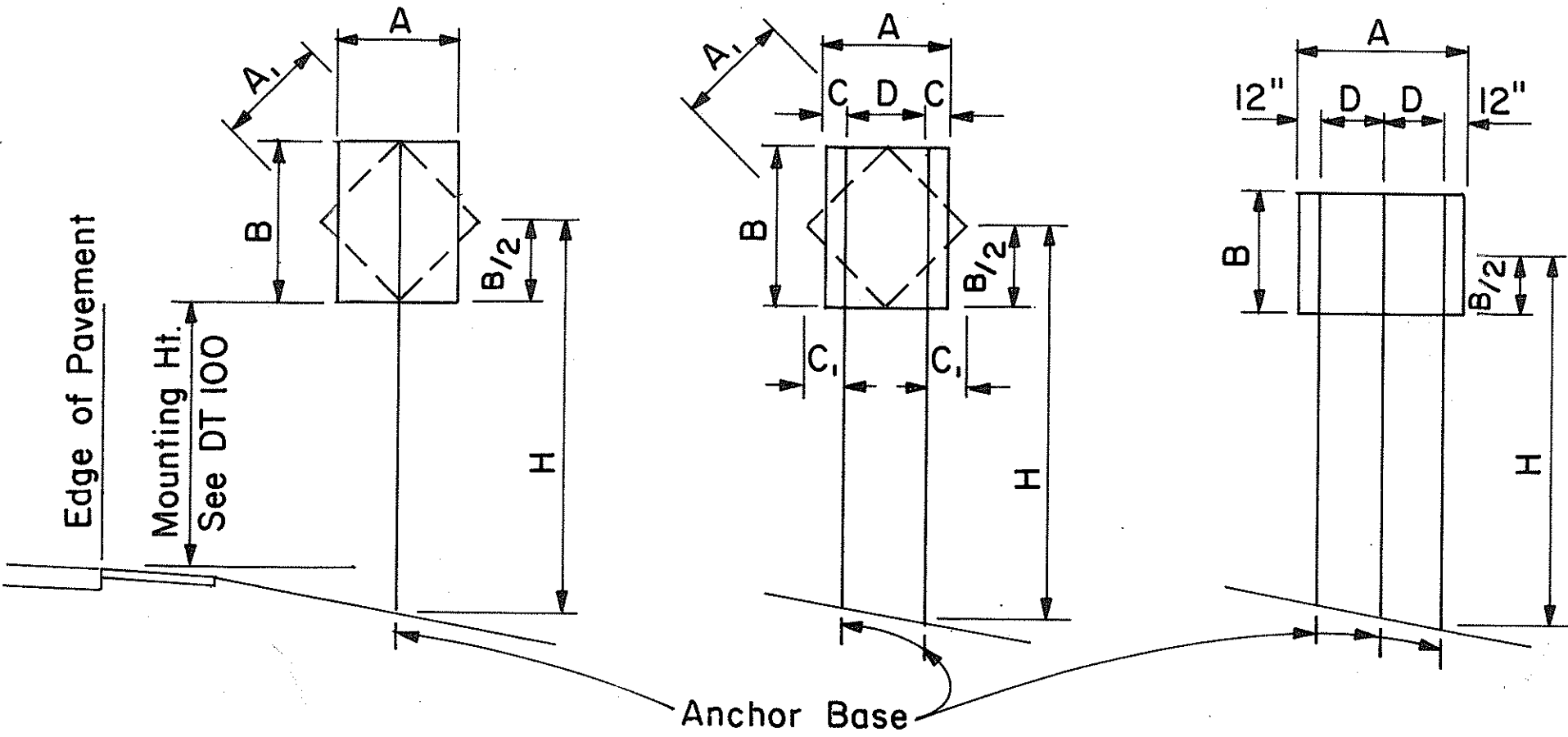
- Square tube sign posts shall conform to Subsection 713.11(C) Square Tube Posts of the Specifications.
- All accessories, fittings and stiffener details (as required) shall be submitted to Engineer for approval 20 days prior to installation.
- Square tube posts shall be perforated with 7/16"  $\phi$  holes, 1" o.c., 4 sides, along entire length of post.
- All posts shall be 12 gage unless otherwise specified or shown on the plans.
- For additional details see sht. DT 100.
- Basic formulas for use with the windload charts:  
Factor =  $A \times B \times H$   
Therefore, if sign area ( $A \times B$ ) is known,  
Maximum  $H = \frac{\text{Factor}}{\text{sign area (A x B)}}$   
and if H is known,  
Maximum sign area ( $A \times B$ ) =  $\frac{\text{Factor}}{H}$

| A or A <sub>1</sub> | C   | C <sub>1</sub> |
|---------------------|-----|----------------|
| 36"                 | 6"  | -              |
| 48"                 | 9"  | 19"            |
| 60"                 | 12" | 24"            |

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



BACK VIEW      SIDE VIEW  
2" SIGN POST INSTALLATION



1 - POST      2 - POST      3 - POST  
Sign area 10 sq. ft. and less      Sign area greater than 10 sq. ft. or A = 48" - 60"      A = greater than 60"

## TYPICAL INSTALLATION

Not to Scale

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

A x B (Area, sq. ft.)

| SQUARE TUBE: 2 - POST INSTALLATION |                |                                    |      |      |      |      |      |
|------------------------------------|----------------|------------------------------------|------|------|------|------|------|
| Post Size                          | AxBxH (Factor) | H = Ground Level to Midpoint (ft.) |      |      |      |      |      |
|                                    |                | 7                                  | 8    | 9    | 10   | 11   | 12   |
| 2"                                 | 122            | 17.4                               | 15.2 | 13.5 | 12.2 | 11.0 | 10.1 |
| 2 1/2"                             | 212            | 30.2                               | 26.5 | 23.5 | 21.1 | 19.2 | 17.6 |
| 2 1/2", 10 ga.                     | 260            | 37.0                               | 32.0 | 28.6 | 26.0 | 23.5 | 21.5 |

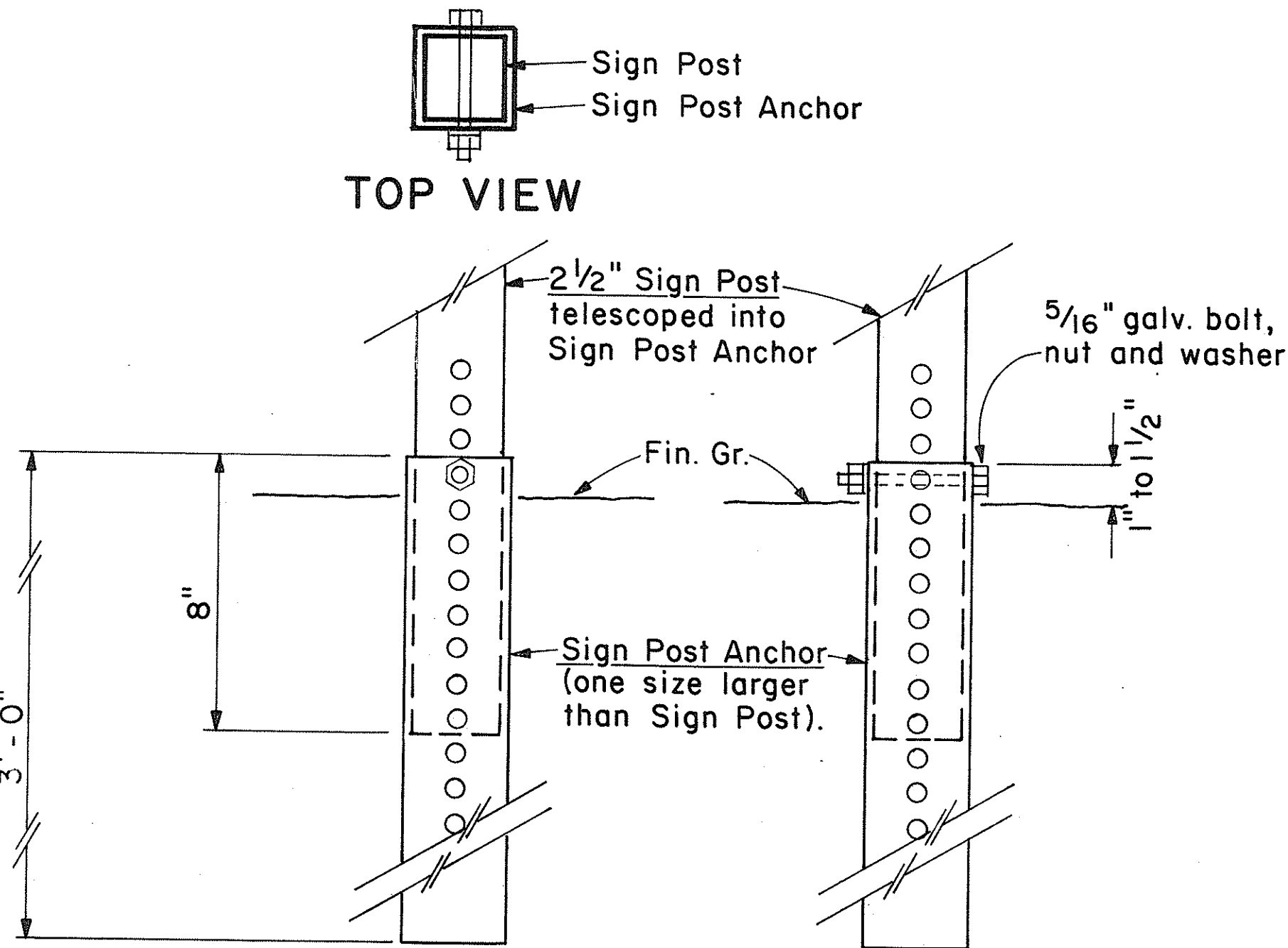
A x B (Area, sq. ft.)

| SQUARE TUBE: 3 - POST INSTALLATION |                |                                    |      |      |      |      |      |
|------------------------------------|----------------|------------------------------------|------|------|------|------|------|
| Post Size                          | AxBxH (Factor) | H = Ground Level to Midpoint (ft.) |      |      |      |      |      |
|                                    |                | 7                                  | 8    | 9    | 10   | 11   | 12   |
| 2"                                 | 183            | 26.0                               | 22.8 | 20.3 | 18.2 | 16.6 | 15.2 |
| 2 1/2"                             | 318            | 45.4                               | 39.5 | 35.2 | 31.5 | 28.8 | 26.5 |
| 2 1/2", 10 ga.                     | 388            | 55.0                               | 48.5 | 43.0 | 38.5 | 35.0 | 32.0 |

A x B (Area, sq. ft.)

## WINDLOAD CHARTS

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



BACK VIEW      SIDE VIEW  
2 1/2" SIGN POST INSTALLATION

## ANCHOR BASE DETAIL

Scale: 3" = 1'-0"

APPROVAL RECOMMENDED:

*E.ichi Tanaka* 9/21/82  
TRAFFIC ENGINEER DATE

APPROVED:

*Robert Balischi* 9/22/82  
ASSISTANT CHIEF, ENGINEERING DATE

| NO. | REVISION | APPROVED BY | DATE |
|-----|----------|-------------|------|
|     |          |             |      |

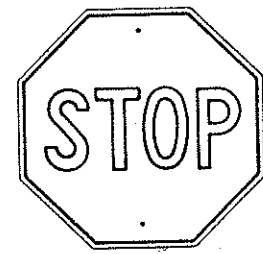
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
  
STANDARD DETAILS  
GALVANIZED SQUARE TUBE  
SIGN POST MOUNTING

Scale: As Shown Date: Sep: 1982

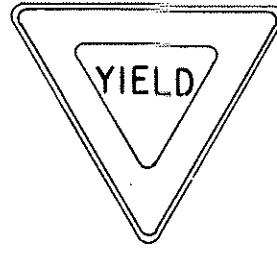
SHEET NO. 11 OF 12 SHEETS DT100B



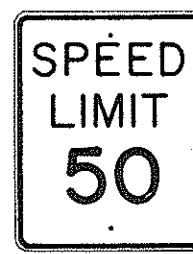
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | HII-0285           | 1985        | 11        | 15           |



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



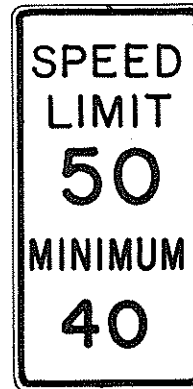
R1-2 36" x 36" x 36"  
R1-2-A 48" x 48" x 48"



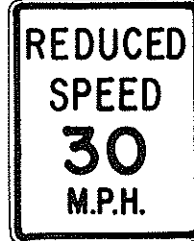
R2-1(50) 24" x 30"  
R2-1(50)-A 48" x 60"



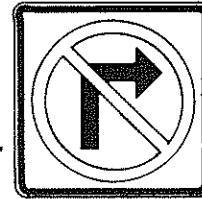
R2-2(40) 24" x 24"  
R2-2(40)-A 48" x 48"



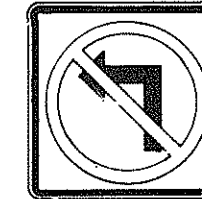
R2-4a(50/40) 24" x 48"  
R2-4a(50/40)-A 48" x 96"



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



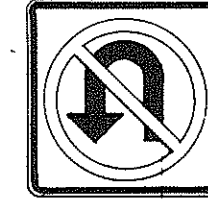
R3-1 24" x 24"  
24" x 18"  
R3-1-A 48" x 48"  
48" x 36"



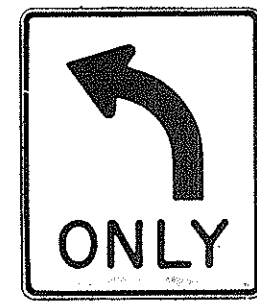
R3-2 24" x 24"  
24" x 18"  
R3-2-A 48" x 48"  
48" x 36"



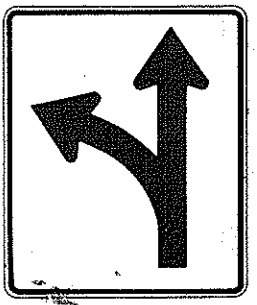
R3-3 24" x 24"  
R3-3-A 48" x 48"



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"



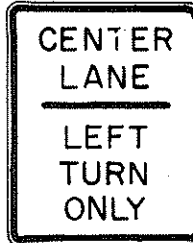
R3-6(L) 30" x 36"  
R3-6(L)-A 48" x 60"



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"



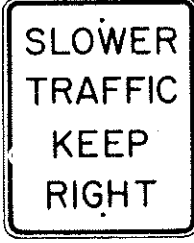
R3-9 24" x 30"



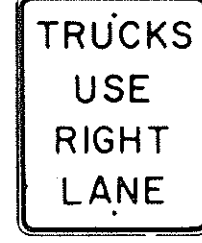
R4-1 24" x 30"



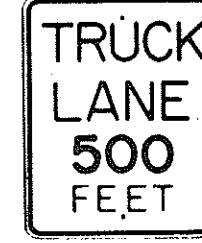
R4-2 24" x 30"



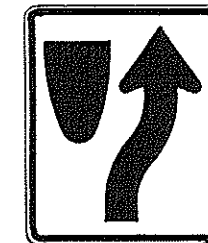
R4-3 24" x 30"  
R4-3-A 48" x 60"



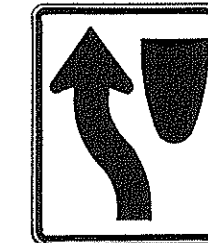
R4-5 24" x 30"



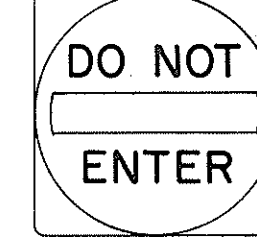
R4-6(500) 24" x 30"



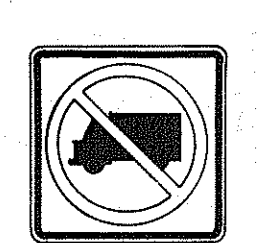
R4-7 24" x 30"  
24" x 18"



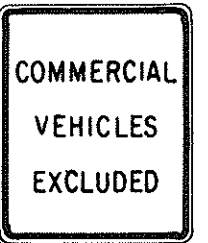
R4-8 24" x 30"  
24" x 18"



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"



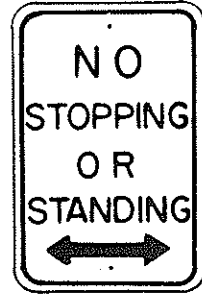
R6-1(R) 36" x 12"



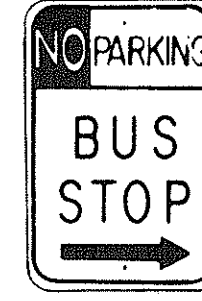
R6-2(R) 18" x 24"



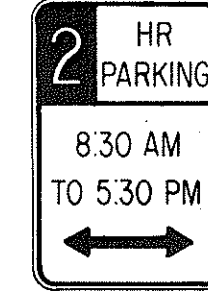
R7-1 12" x 18"  
R7-1-A 24" x 30"



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



R7-1, 7(R) 12" x 18"



R7-108 12" x 18"



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



R8-1 24" x 30"



R8-2 24" x 30"



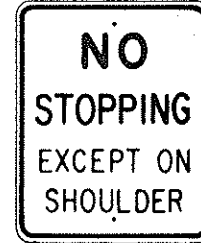
R8-3 24" x 30"



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



R8-5 24" x 30"



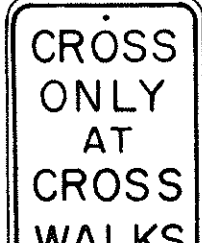
R8-6 24" x 30"



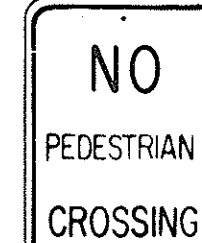
R8-7 30" x 24"  
R8-7-A 48" x 36"



R9-1 18" x 24"



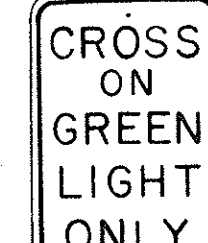
R9-2 12" x 18"



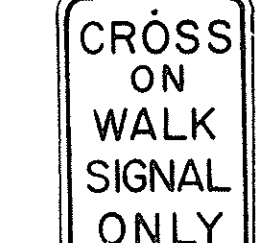
R9-3 12" x 18"



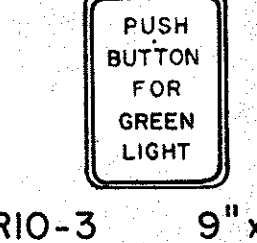
R9-4 18" x 24"



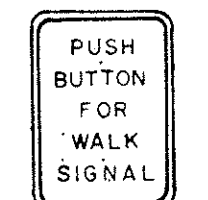
R10-1 12" x 18"



R10-2 12" x 18"



R10-3 9" x 12"



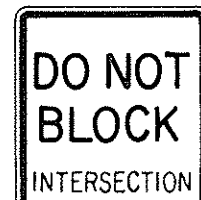
R10-4 9" x 12"



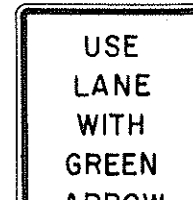
R10-5 24" x 30"



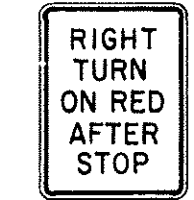
R10-6 24" x 36"



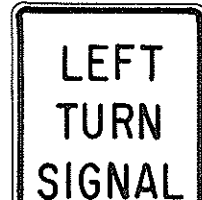
R10-7 24" x 30"



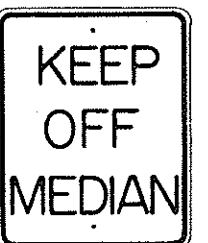
R10-8 24" x 30"



R10-9 24" x 30"



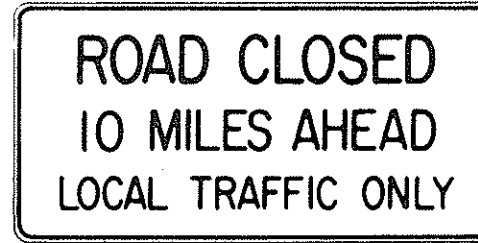
R10-10 24" x 30"



R11-1 24" x 30"



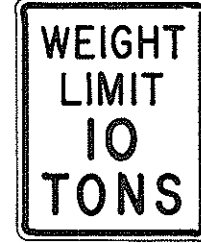
R11-2 48" x 30"



R11-3(10) 60" x 30"



R11-4 60" x 30"



R12-1(10) 24" x 30"

## GENERAL NOTES

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

APPROVAL RECOMMENDED:  
*Eishi Tanaka*  
TRAFFIC ENGINEER

3/17/72  
DATE

APPROVED:  
*Valent J. Rabin*  
ASSISTANT CHIEF, ENGINEERING

3-20-72  
DATE

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

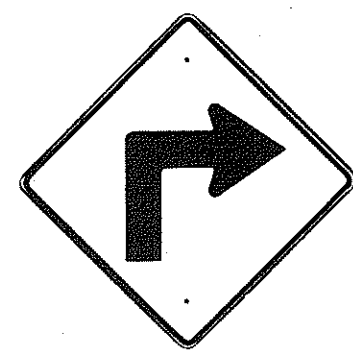
## STANDARD DETAILS REGULATORY SIGNS

NOT TO SCALE

SHEET No. 18 OF 12 SHEETS DT 101

|                   |       |
|-------------------|-------|
| DATE              | _____ |
| SURVEY PLOTTED BY | _____ |
| DESIGNED BY       | _____ |
| TRACED BY         | _____ |
| NOTE BOOK         | _____ |
| QUANTITIES BY     | _____ |
| CHECKED BY        | _____ |

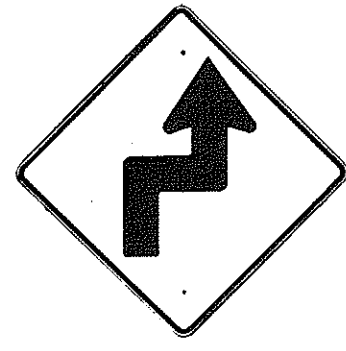




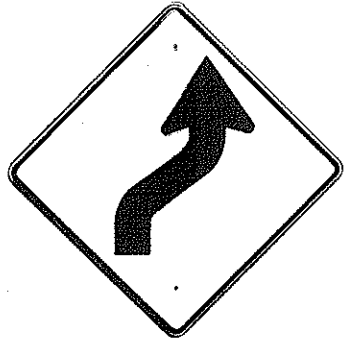
W1-1(R) 30"x30"  
W1-1(R)-A 48"x48"



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



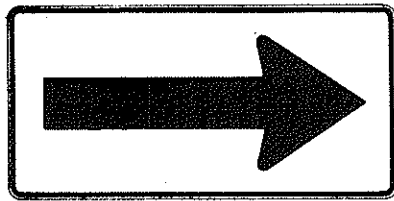
W1-3(R) 30"x30"  
W1-3(R)-A 48"x48"



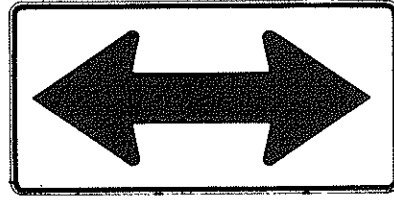
W1-4(R) 30"x30"  
W1-4(R)-A 48"x48"



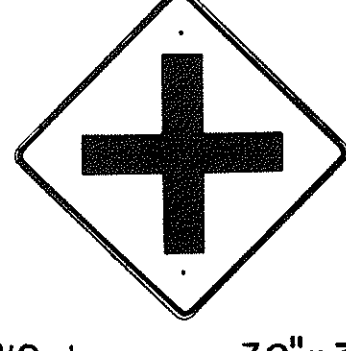
W1-5(R) 30"x30"  
W1-5(R)-A 48"x48"



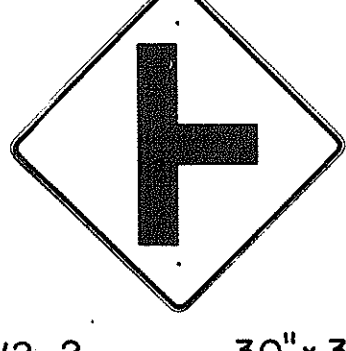
W1-6 48"x24"



W1-7 48"x24"



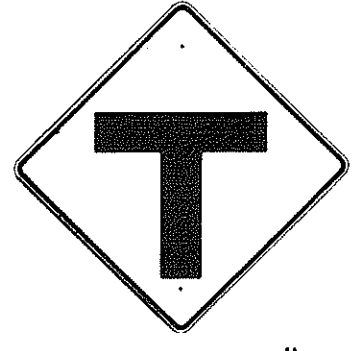
W2-1 30"x30"  
W2-1-A 48"x48"



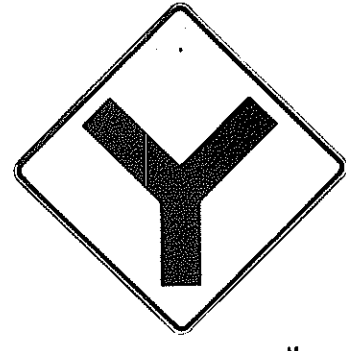
W2-2 30"x30"  
W2-2-A 48"x48"



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



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



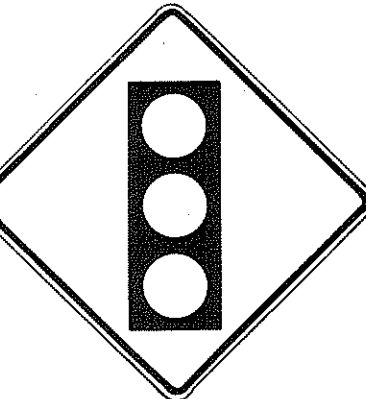
W2-5 30"x30"  
W2-5-A 48"x48"



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



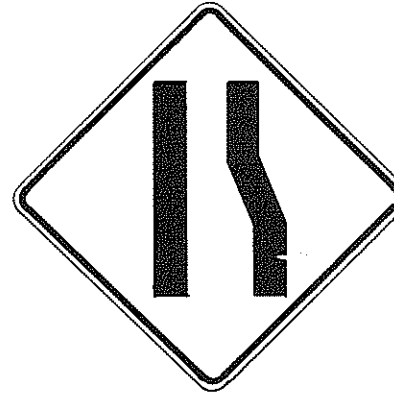
W3-2 30"x30"  
W3-2-A 36"x36"



W3-3 36"x36"  
24"x18"



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



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



W5-1 36"x36"



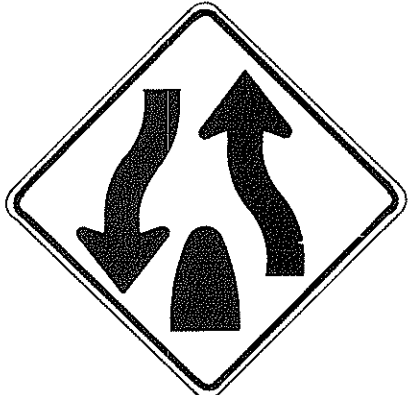
W5-2 30"x30"  
W5-2-A 36"x36"



W5-3 36"x36"



W6-1 36"x36"  
24"x18"



W6-2 36"x36"  
24"x18"



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



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



W7-2 24"x18"



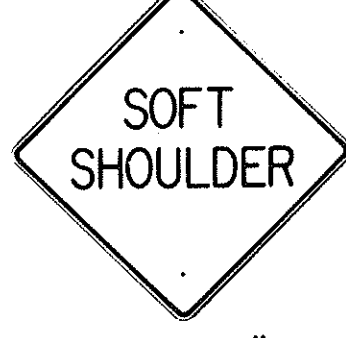
W8-1 30"x30"  
W8-1-A 36"x36"



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



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



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



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



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



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



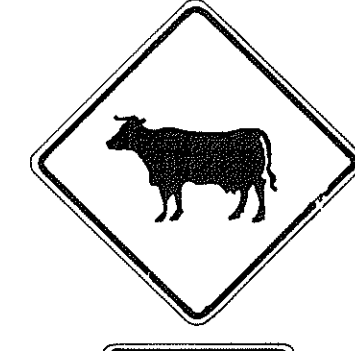
W10-1 36" Diameter



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



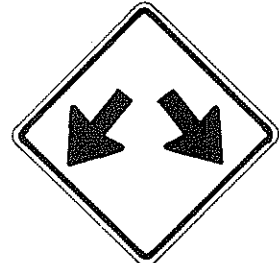
W11-2 30"x30"  
24"x18"  
W11-2-A 36"x36"  
24"x18"



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



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



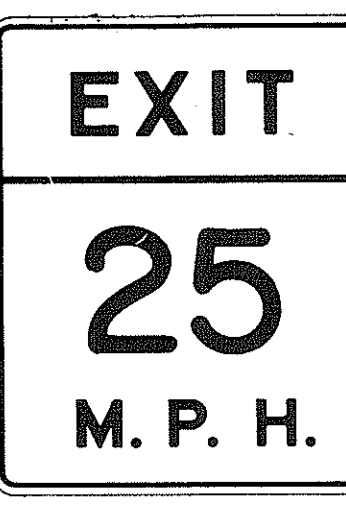
W12-1 24"x24"  
W12-1-A 36"x36"  
W12-1-B 48"x48"



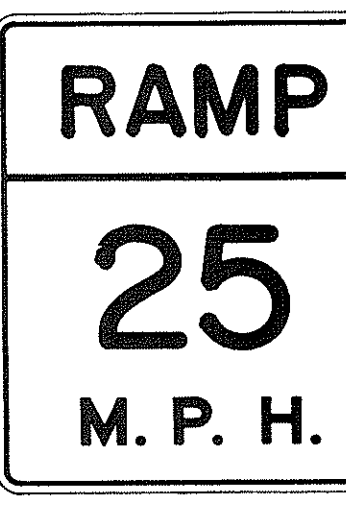
W12-2(12'-6") 36"x36"  
24"x18"



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



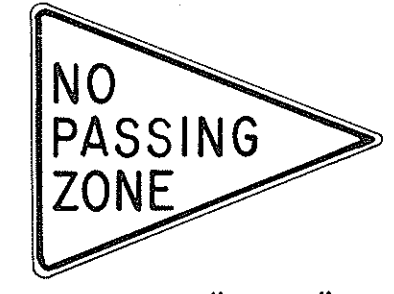
W13-2(25) 48"x60"



W13-3(25) 48"x60"



W14-1 30"x30"



W14-3 36"x48"x48"

### GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 1972, and as amended.
- All warning signs shall be reflectorized unless otherwise specified.
- All warning signs shall have 3/8" bolt holes drilled at appropriate locations.
- Numerals in ( ) indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
- Signs prefixed with "CW" on the plans shall indicate orange and black construction signs, and shall be reflectorized.

APPROVAL RECOMMENDED:  
*Eishi Tanaka* 3/17/12  
TRAFFIC ENGINEER DATE

APPROVED:  
*Walter R. Sisk* 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  |
| 2   | Revised General Note 1                   | H.C.        | 10/16/14 |
| 3   | Revised General Note 5                   | Mt          | 9-16-15  |
| 4   | Revised General Note 5                   | H.C.        | 9-14-16  |
| 5   | Added Note 1                             | H.C.        | 11-7-17  |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

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

NOT TO SCALE

SHEET No. 12 OF 12 SHEETS DT 102

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

### NOTE

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



| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | H11-02-85          | 1985        | 13        | 15           |

General Notes

1. Sign details shall conform to the latest editions of the following FHWA publications:  
a. "Standard Alphabets for Highway Signs," and as amended.  
b. "Standard Highway Signs," and as amended.  
c. "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
2. All signs shall be reflectorized with reflective sheeting, unless otherwise specified.
3. All signs shall have 3/8" bolt holes drilled at appropriate locations.
4. Numerals in ( ) indicate 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, and shall be reflectorized with reflective sheeting.
6. All signs shall be erected without educational plaques unless called for in the plans.

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

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

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**STANDARD DETAILS**  
MISCELLANEOUS SIGNS  
NOT TO SCALE  
DATE: MAY, 1978  
SHEET No. 110 OF 112 SHEETS DT 103

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

NO PARKING  
ANY TIME  
- 4" Series C  
- 1 1/2"  
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  
4" Series C  
R16-1 24" x 30"

NO  
LEFT  
TURN  
ON  
RED  
- 4" Series D -  
- 3" Series D -  
- 2" Series D -  
- 3" Series D -  
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  
3" Series C  
4" Series E  
R16-5 36" x 42"

U  
TURN  
AHEAD  
- 8" Series F  
- 5" Series D  
R16-6 24" x 30"

U  
TURN  
OK  
- 8" Series F  
- 5" Series D  
R16-7 24" x 30"

MOTOR-DRIVEN  
CYCLES  
PROHIBITED  
4" Series B  
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  
6" Series C  
W3-4 48" x 48"

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

THRU  
TRAFFIC  
MERGE  
LEFT  
6" Series E  
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  
- 4" Series C -  
W15-1 24" x 24"

ADVANCE  
GREEN  
W15-2 24" x 24"

END  
FREEWAY  
1/2 MI  
8" Series E  
CW16-1(1/2) 60" x 60"

RIGHT  
LANE  
EXIT  
ONLY  
8" Series E  
W18-1 48" x 60"

SI-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  
7" Series D  
CW23-4 48" x 48"

USE  
SIDEWALK  
4" Series C  
R18-1 24" x 18"

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



|                        |       |                       |                |              |                 |
|------------------------|-------|-----------------------|----------------|--------------|-----------------|
| FED. ROAD<br>DIST. NO. | STATE | FED. AID<br>PROJ. NO. | FISCAL<br>YEAR | SHEET<br>NO. | TOTAL<br>SHEETS |
| HAWAII                 | HAW.  | H11-02-85             | 1985           | 14           | 15              |



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"



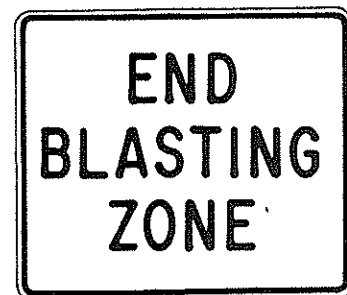
CW21-6 30" x 30"



CW22-1b 48" x 48"



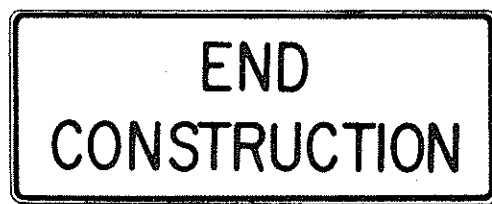
CW22-2 42" x 36"



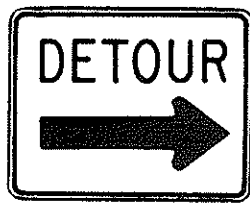
CW22-3 42" x 36"



CG20-1(5) 60" x 36"



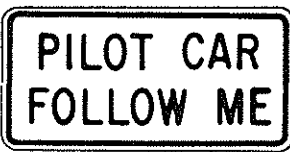
CG20-2 60" x 24"



CM4-9(R) 30" x 24"



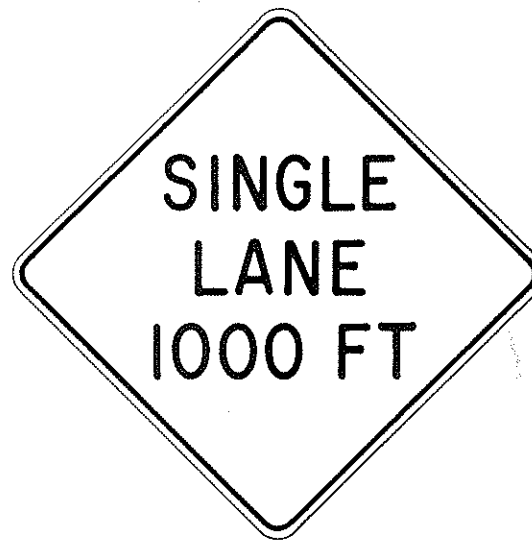
CM4-10(R) 48" x 18"



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.

| NO. | REVISION                                     | APPROVED<br>BY | DATE     |
|-----|----------------------------------------------|----------------|----------|
| 1   | Supersedes Sht. DT 104<br>Approved 12-30-69  | H.T.           | 2/23/72  |
| 2   | Revised General Note 1                       | H.T.           | 10/10/74 |
| 3   | Revised General Note 2                       | H.T.           | 9-16-75  |
| 4   | Revised General Note 2<br>and sign CG20-1(5) | H.T.           | 9-14-76  |

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

APPROVED:  
Shuler Saleh 2/23/72  
ASSISTANT CHIEF, ENGINEERING DATE

|                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION<br><br>STANDARD DETAILS<br>CONSTRUCTION SIGNS<br><br>NOT TO SCALE<br>SHEET No. 111 OF 12 SHEETS DT 104 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

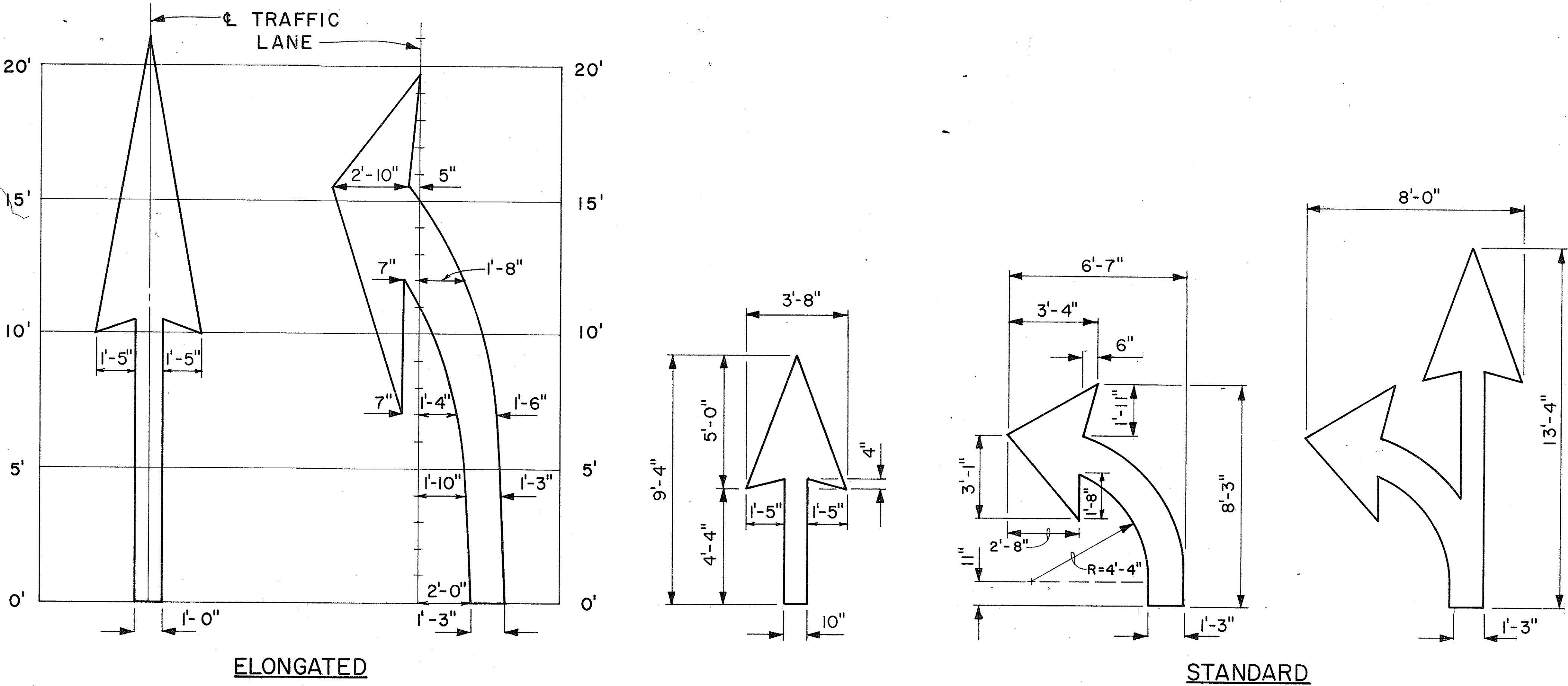
|                  |                   |      |
|------------------|-------------------|------|
| ORIGINAL<br>PLAN | SURVEY PLOTTED BY | DATE |
| NOTE BOOK        | DRAWN BY          |      |
| No.              | DESIGNED BY       |      |
|                  | QUANTITIES BY     |      |
|           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



| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | HII-02-83          | 1985        | 15        | 15           |

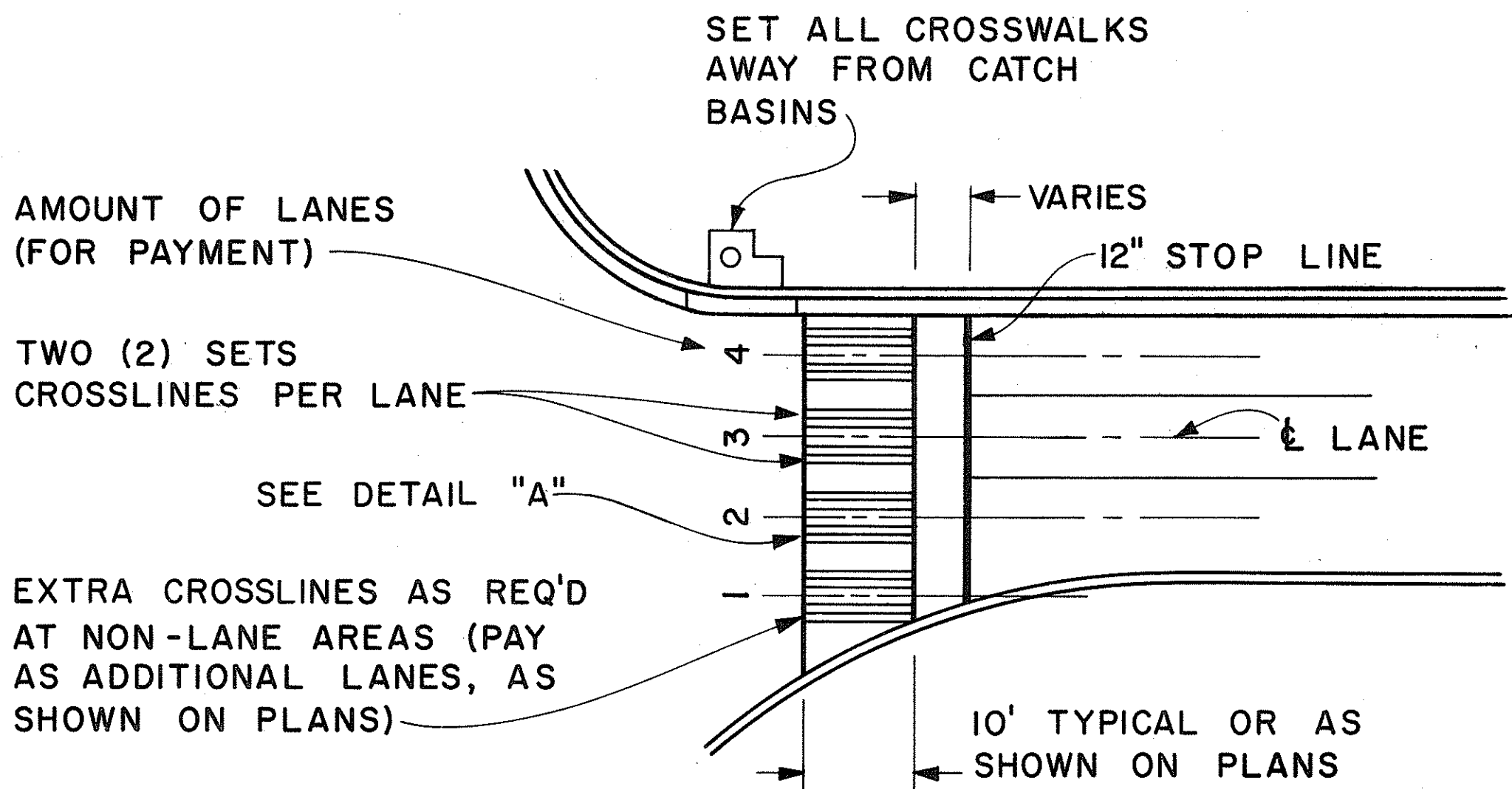
### GENERAL NOTES:

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.

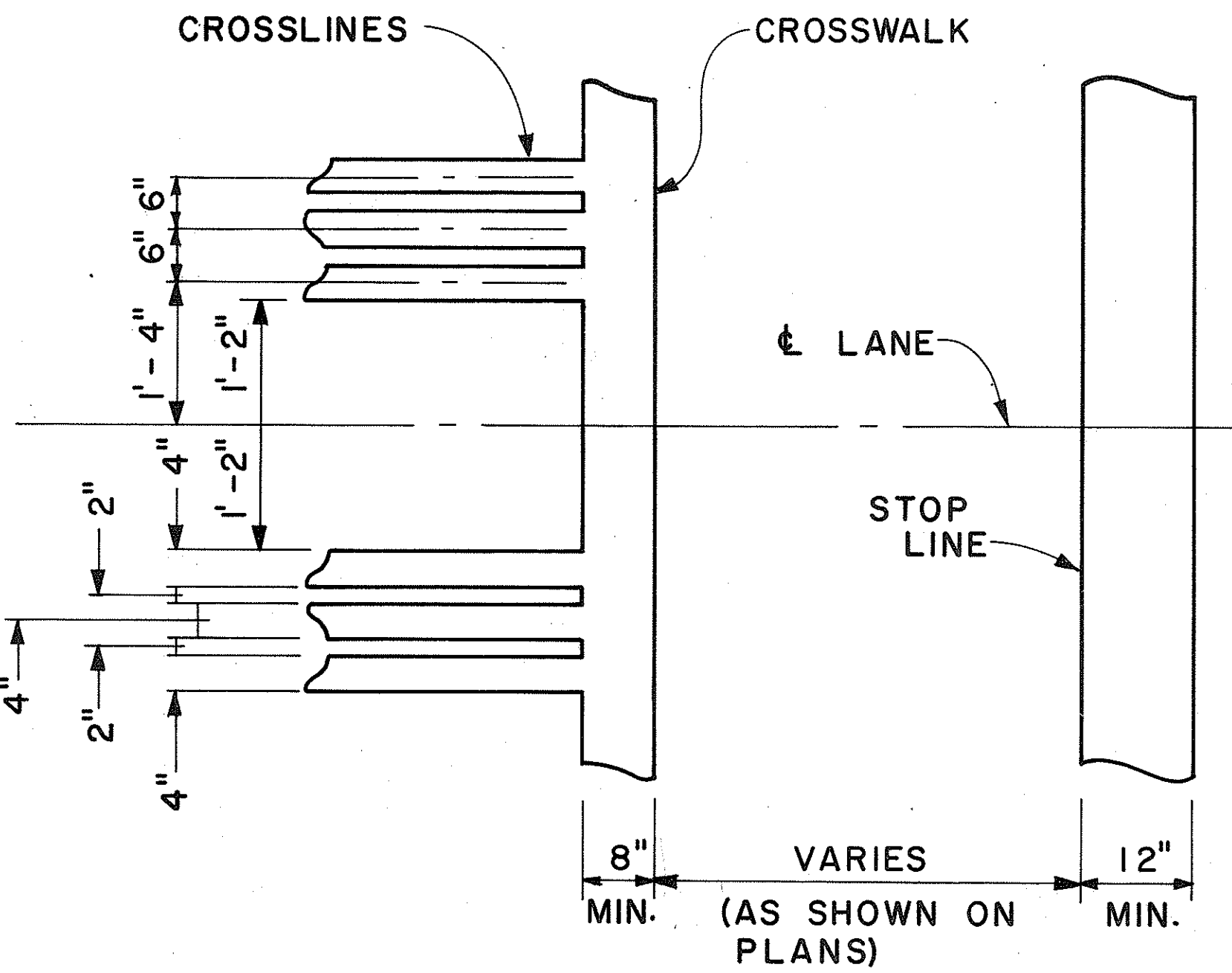


### PAVEMENT ARROWS

Scale: 3/8" = 1'



### PLAN



### DETAIL "A"

### CROSSWALK & STOP LINE

Scale: Not to Scale

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

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

| NO. | REVISION | APPROVED BY | DATE |
|-----|----------|-------------|------|
|     |          |             |      |
|     |          |             |      |
|     |          |             |      |

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

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