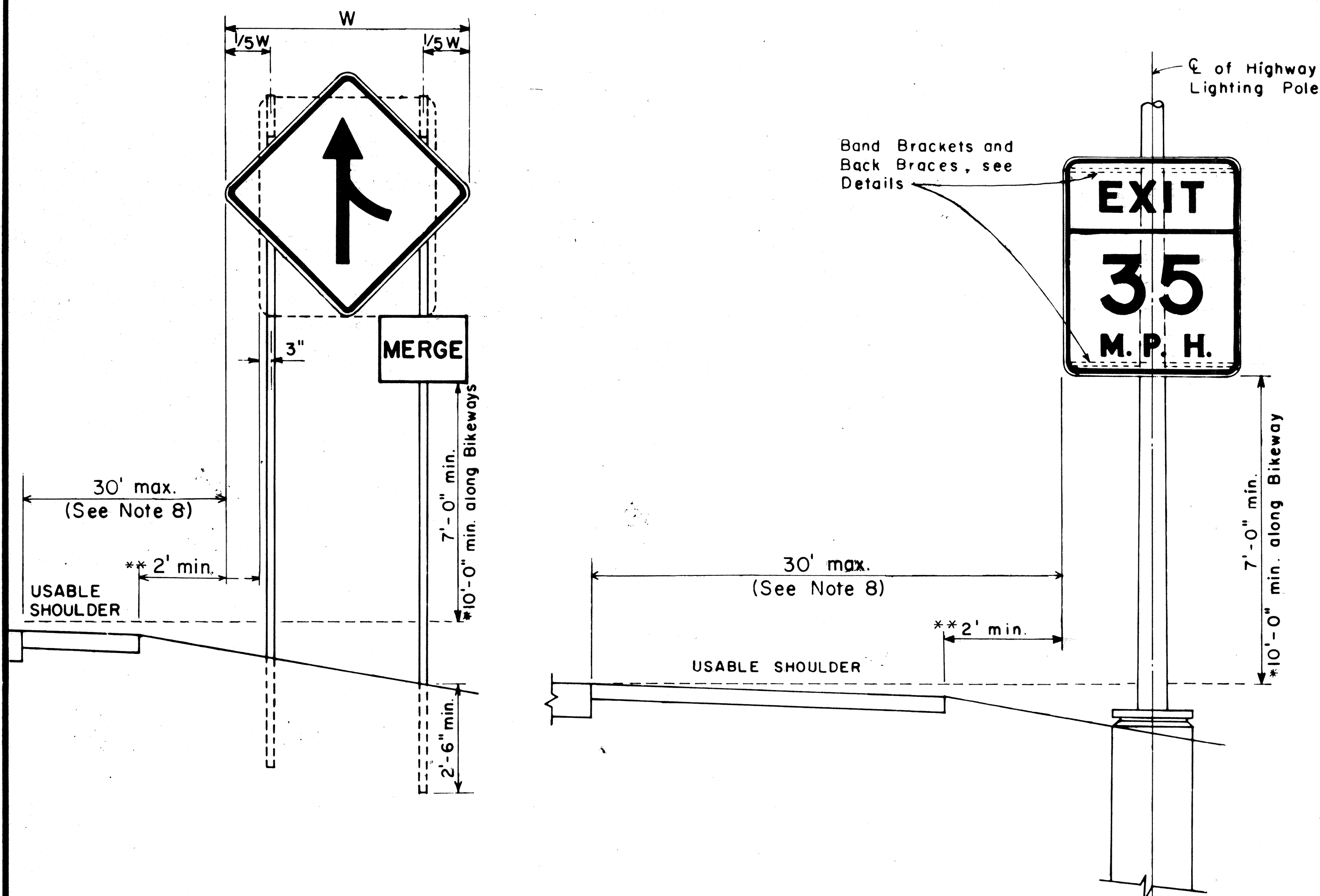
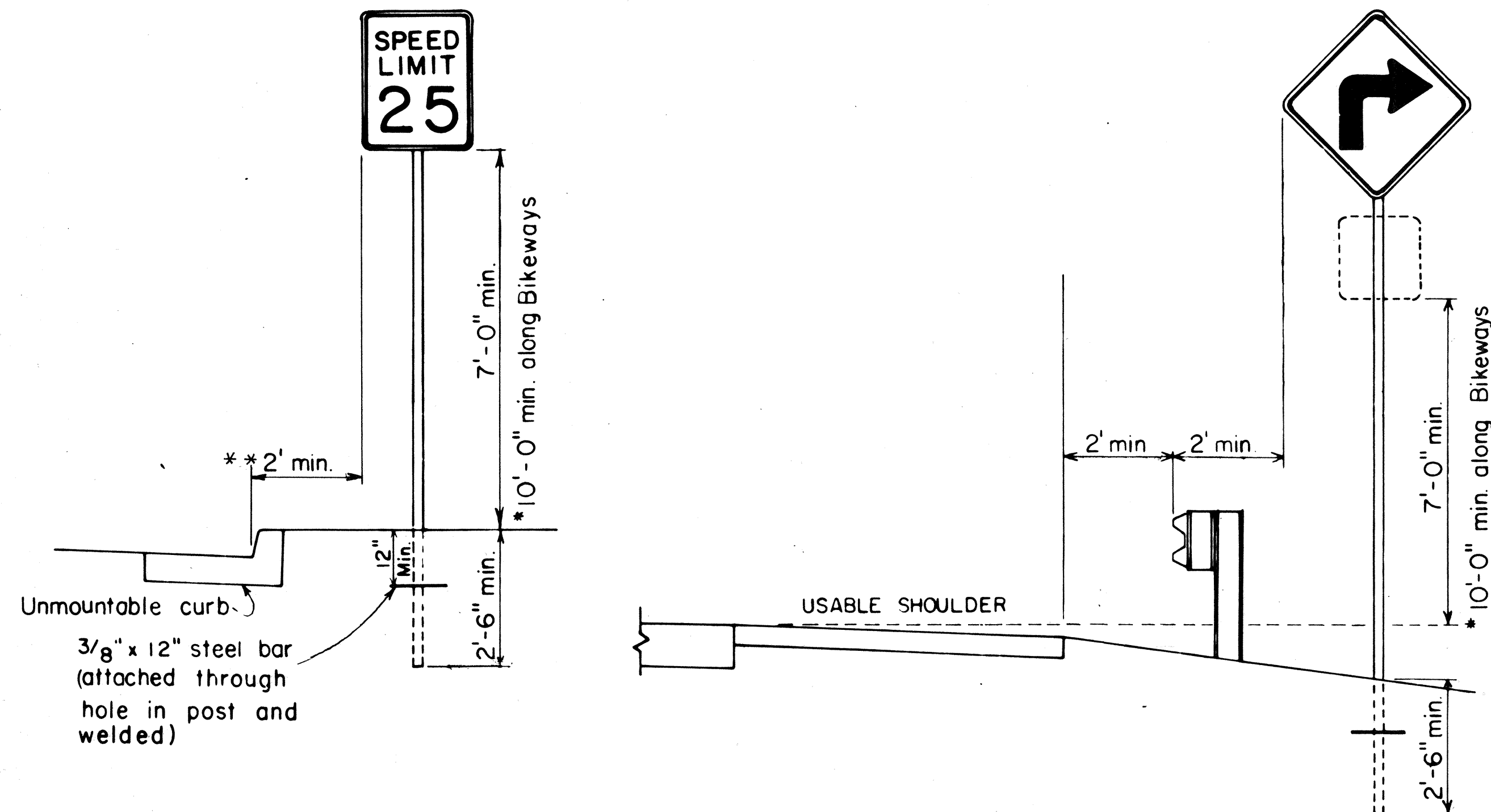
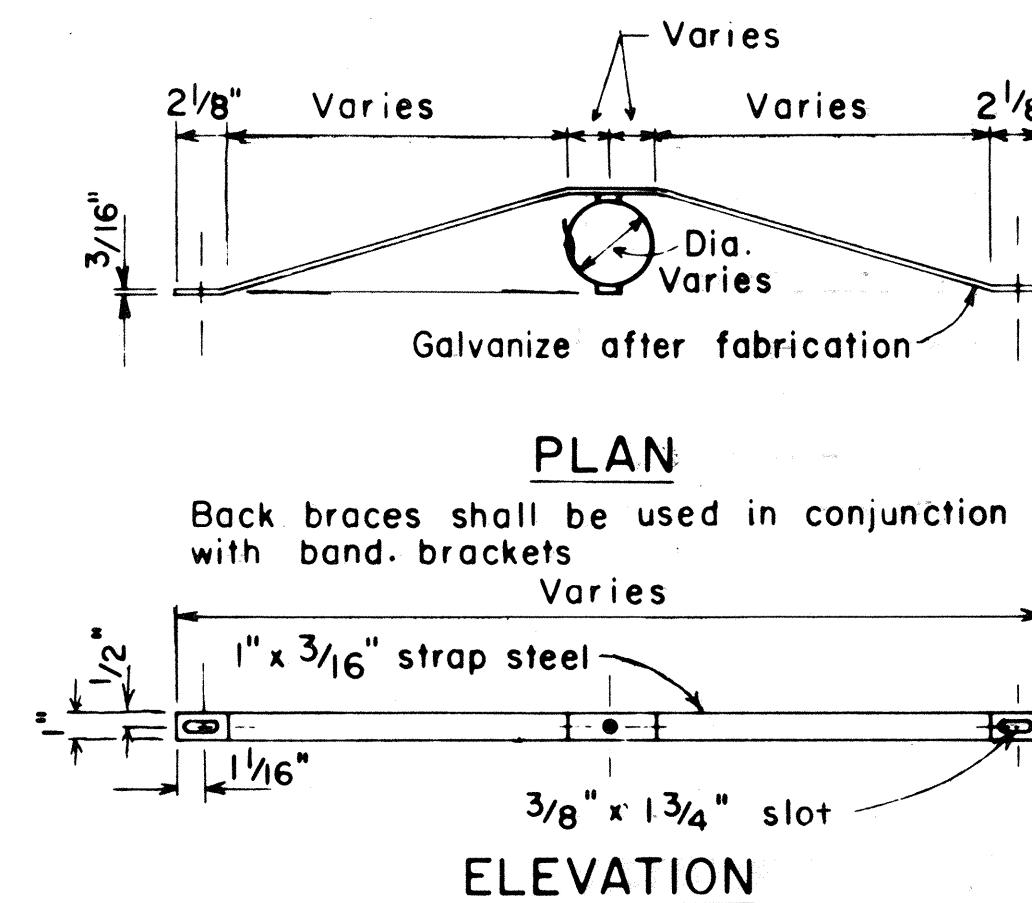


| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------|-------------|-----------|--------------|
| HAWAII | HAW. | HWT-0-01-23M | 1983 | 17 | 23 |

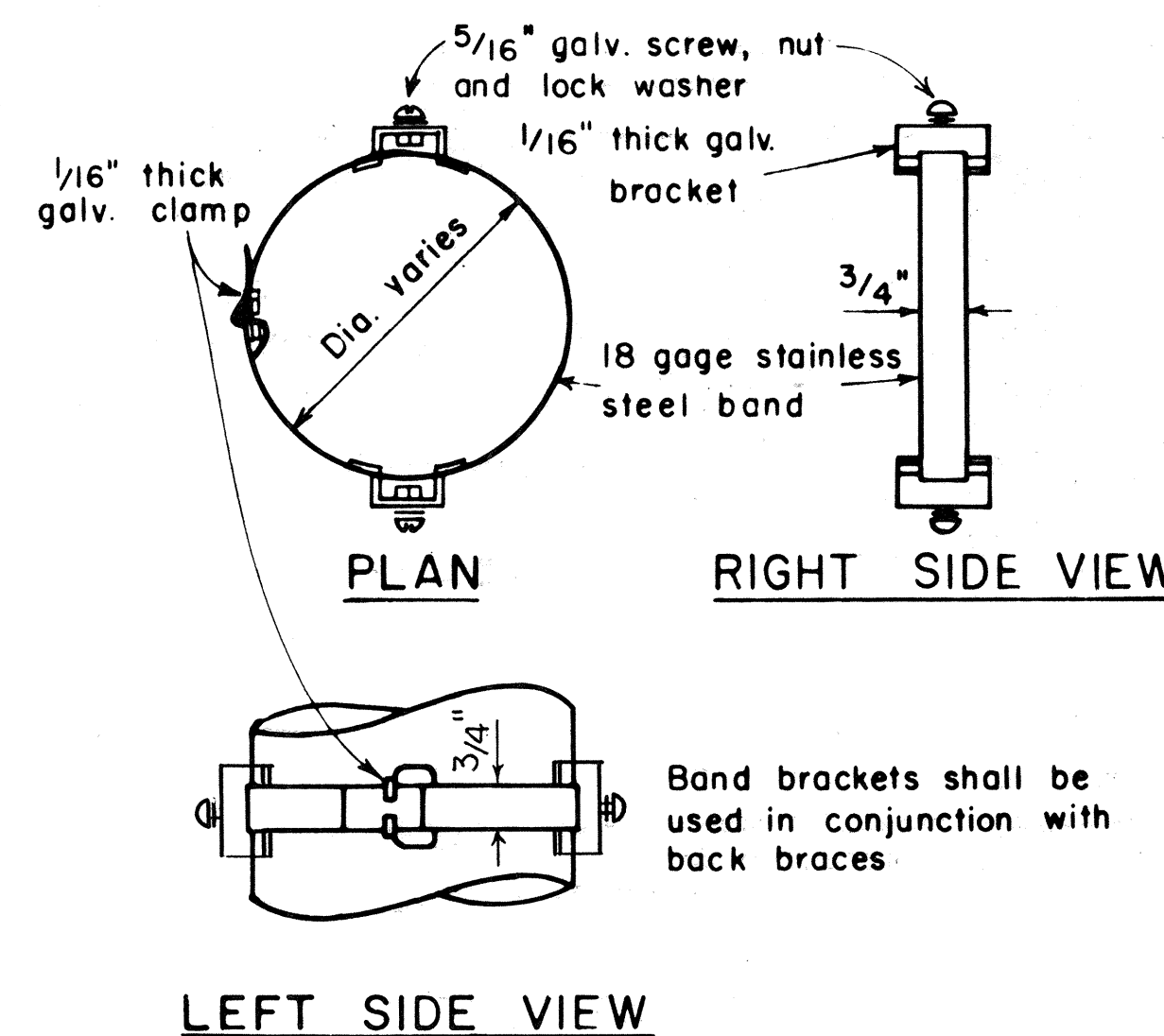
GENERAL NOTES

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

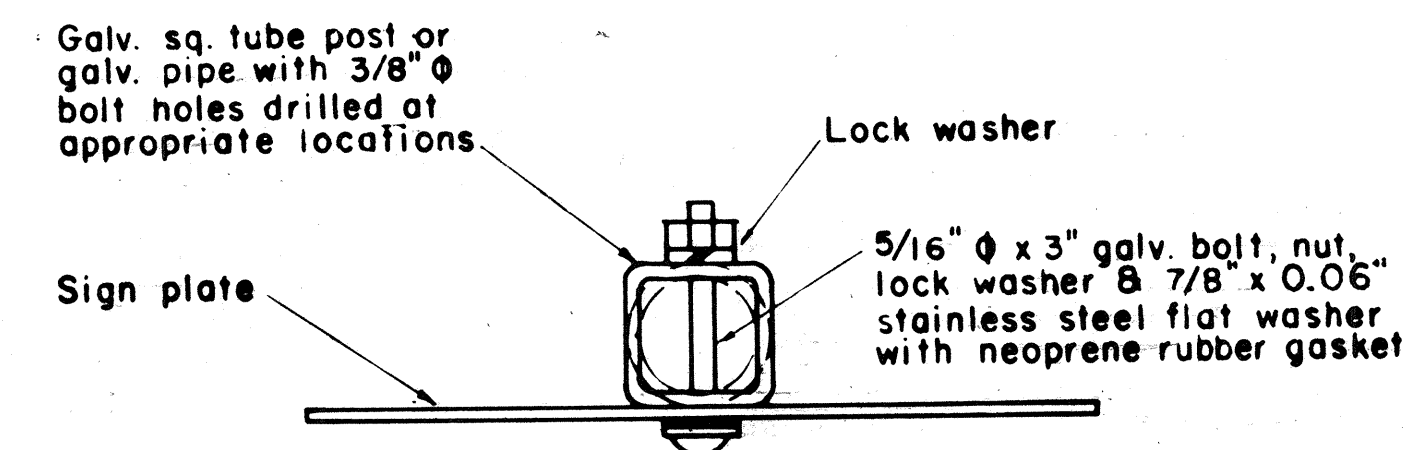
BACK BRACE DETAILS FOR BALANCED SIGN INSTALLATION



HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATION



BAND BRACKET



GALVANIZED SQUARE TUBE POST (OR GALVANIZED PIPE)

TYPICAL MOUNTING DETAILS

NOT TO SCALE

| NO. | REVISION | APPROVED BY | DATE |
|-----|--|-------------|----------|
| 1 | Supersedes Sht. DT-100 approved 12/30/69 | H.T. | 11/15/77 |
| 2 | Revised depth of signpost | H.T. | 5/2/79 |
| 3 | Added Notes No. 8 & No. 9 | H.T. | 5/15/79 |
| 4 | Revised Gen. Note #4 & Mounting Details | H.T. | 4/23/80 |
| 5 | Revised General Notes, Lateral Sign Locations and Mounting Details | H.T. | 5/15/81 |

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

APPROVED:
Harbert S. Galea 11/15/77
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS MISCELLANEOUS SIGN DETAILS

Not to scale June, 1977

SHEET NO. 1 OF 7 SHEETS DT 100

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------|-------------|-----------|--------------|
| HAWAII | HAW. | HWY-0-01-83M | 1983 | 18 | 33 |



CW20-1a 48" x 48"



CW20-2d 48" x 48"



CW20-3b 48" x 48"



CW20-4d 48" x 48"



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



CW20-7c 48" x 48"



CW21-1 30" x 30"



CW21-2 30" x 30"



CW21-3 36" x 36"



CW21-4 36" x 36"



CW21-5 30" x 30"



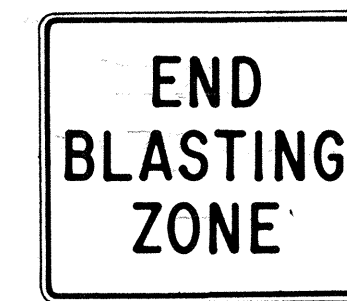
CW21-6 30" x 30"



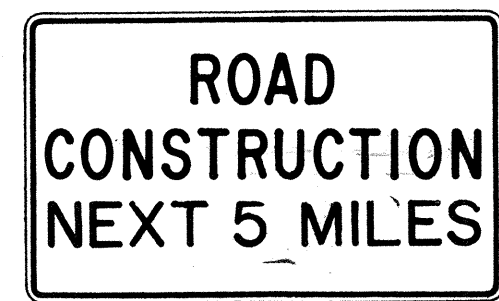
CW22-1b 48" x 48"



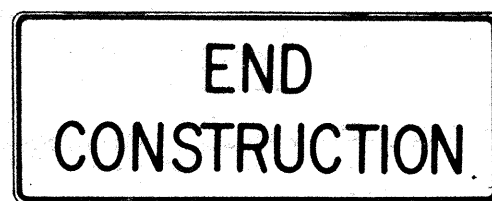
CW22-2 42" x 36"



CW22-3 42" x 36"



CG20-1(5) 60" x 36"



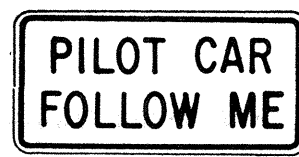
CG20-2 60" x 24"



CM4-9(R) 30" x 24"



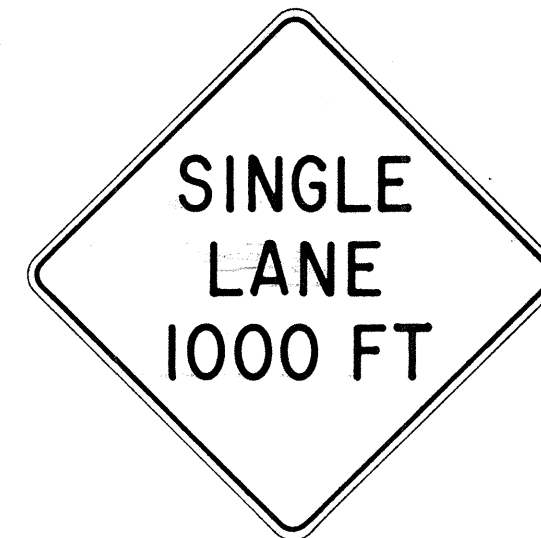
CM4-10(R) 48" x 18"



CG20-4 36" x 18"



CW23-1 36" x 36"



CW23-2b 48" x 48"



CW23-3(R) 48" x 48"

GENERAL NOTES

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

APPROVAL RECOMMENDED:

Evelyn Tanaka
TRAFFIC ENGINEER

3/21/12
DATE

APPROVED:

Shirley Salsich
ASSISTANT CHIEF, ENGINEERING

2/23/12
DATE

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

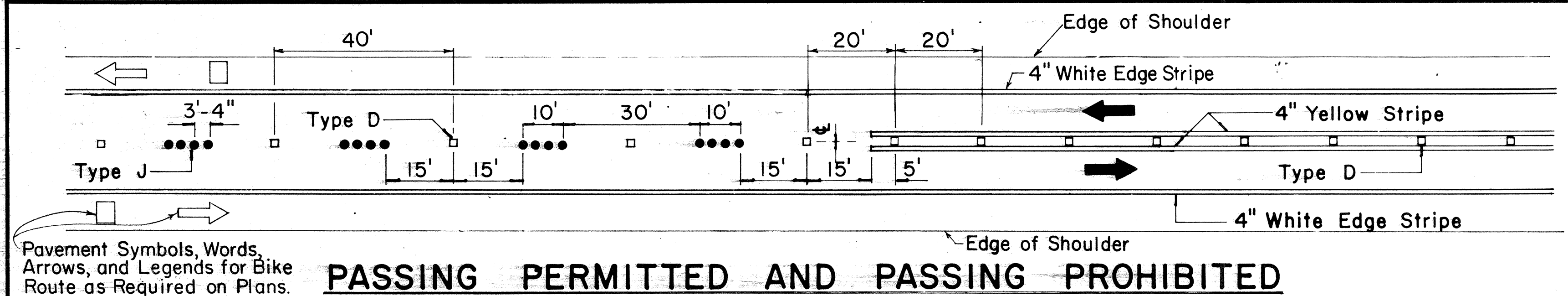
STANDARD DETAILS CONSTRUCTION SIGNS

NOT TO SCALE

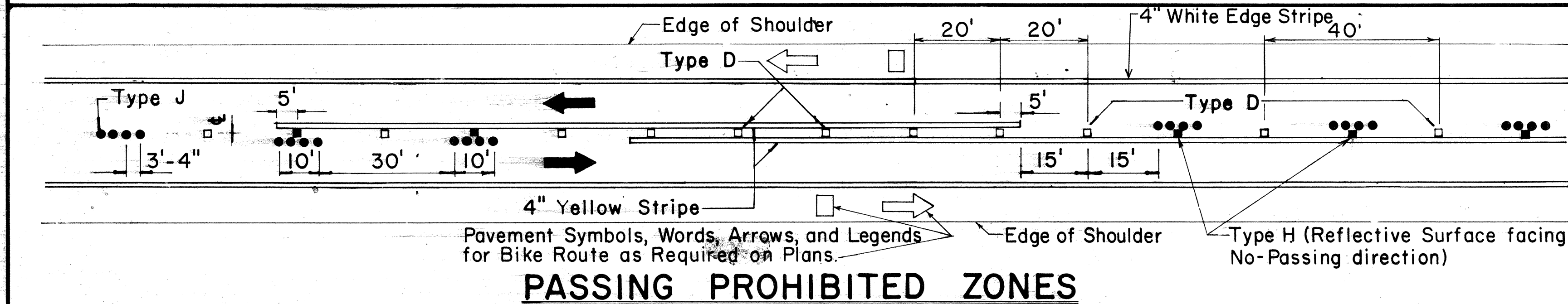
SHEET No. 2 OF 7 SHEETS DT 104

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

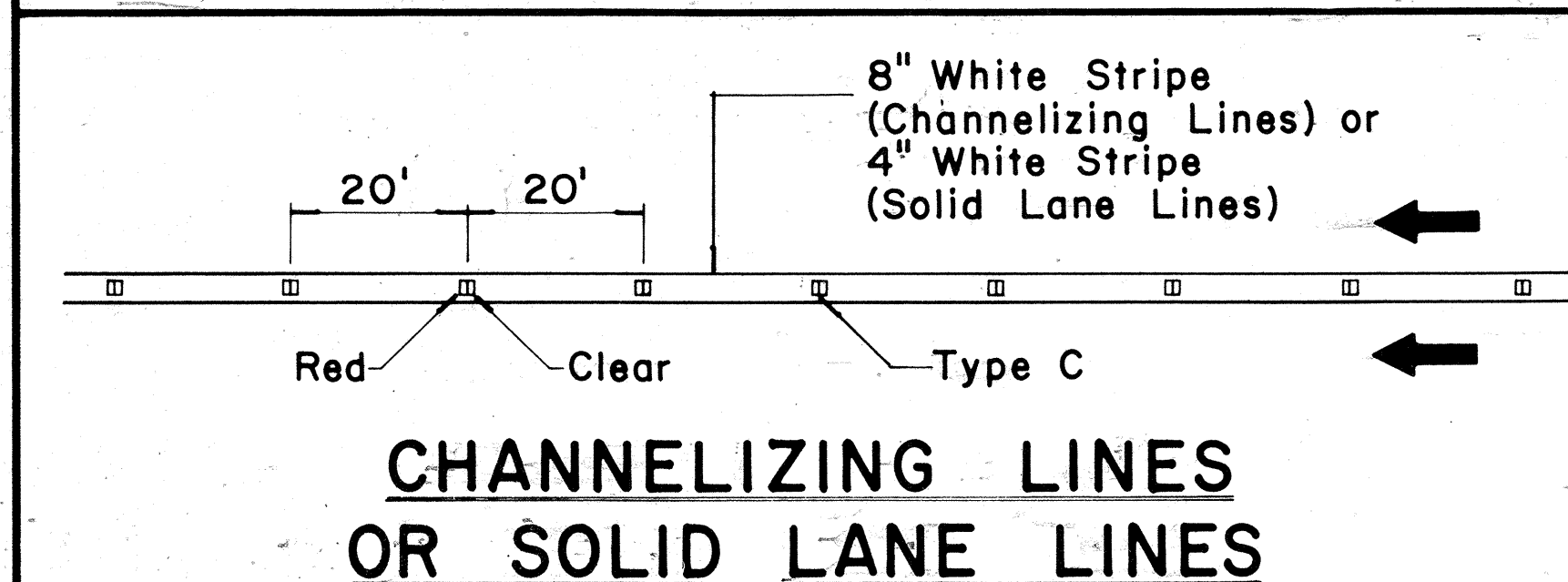
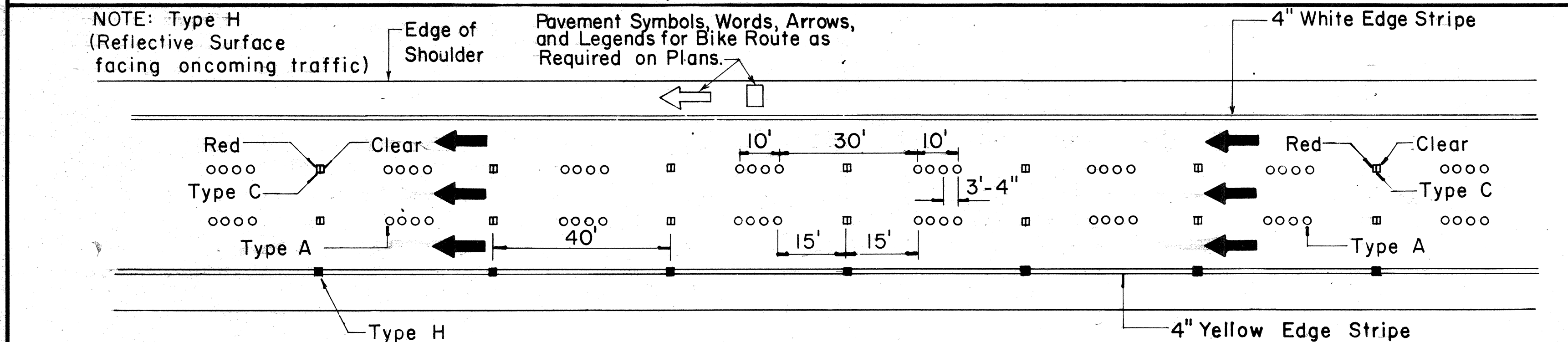
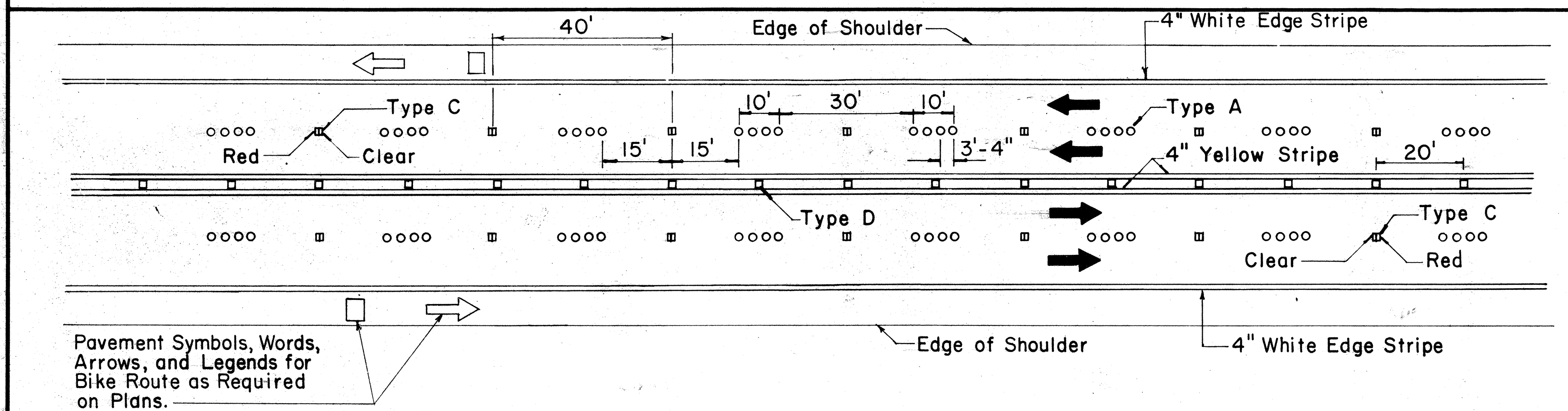
| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------|-------------|-----------|--------------|
| HAWAII | HAW. | HWY-0-01-83M | 1983 | 19 | 23 |



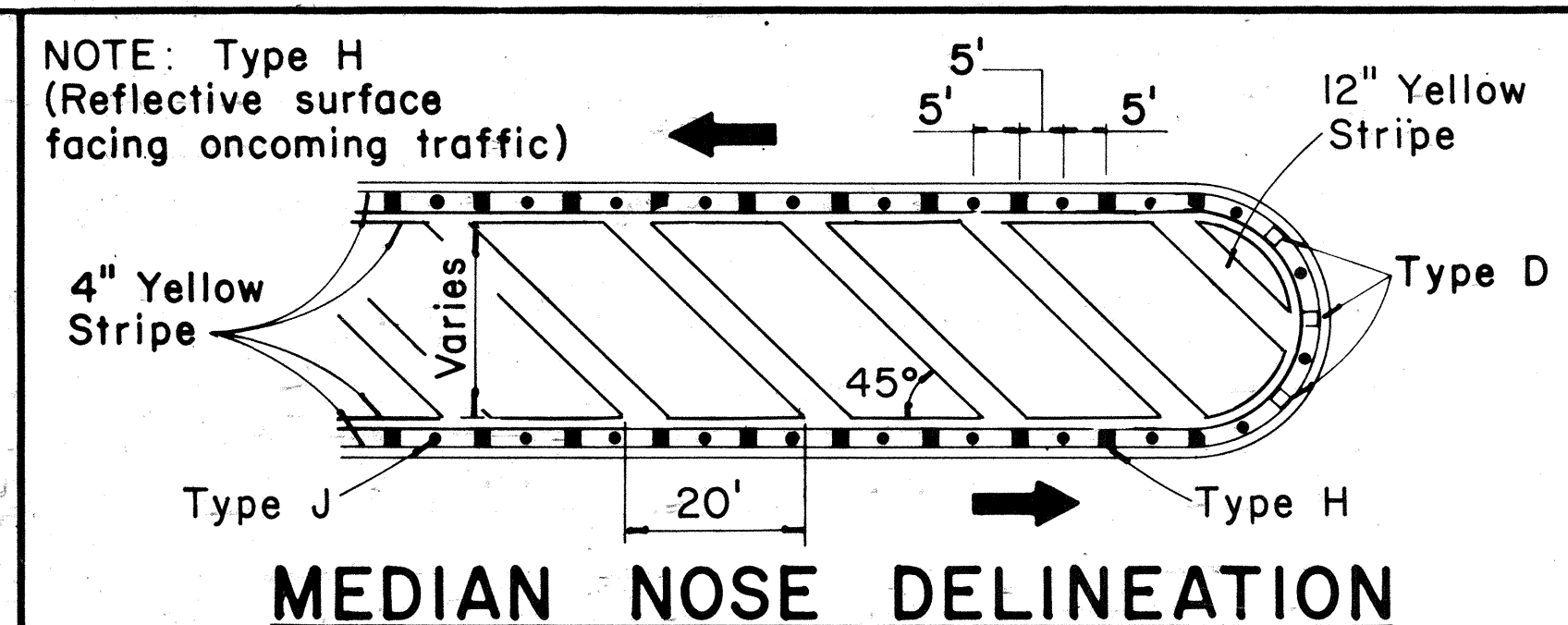
PASSING PERMITTED AND PASSING PROHIBITED



PASSING PROHIBITED ZONES



CHANNELIZING LINES OR SOLID LANE LINES



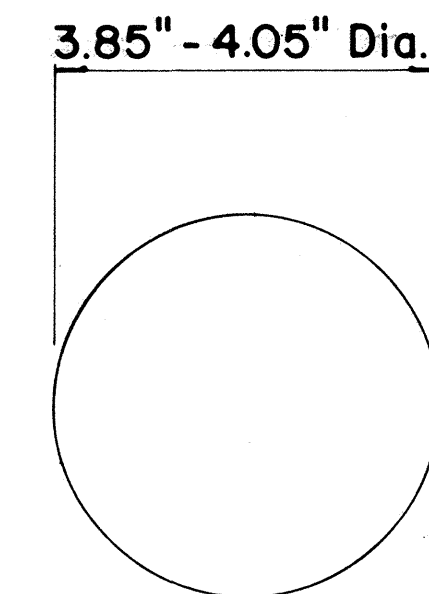
MEDIAN NOSE DELINEATION

TWO - LANE

MULTI - LANE

DIVIDED HIGHWAY AND FREEWAY

MISCELLANEOUS

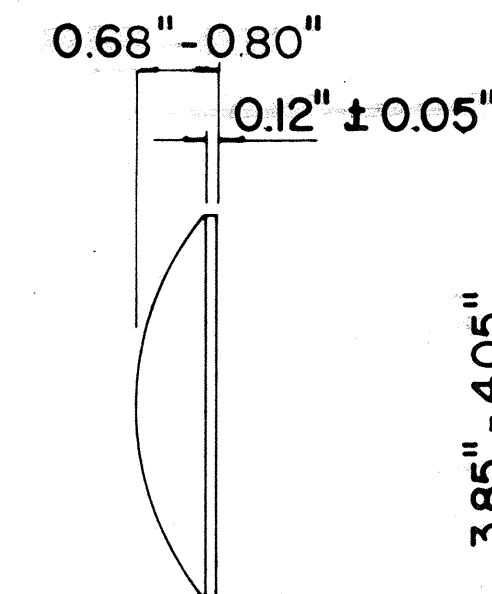


TYPE A

NON - REFLECTIVE WHITE MARKER

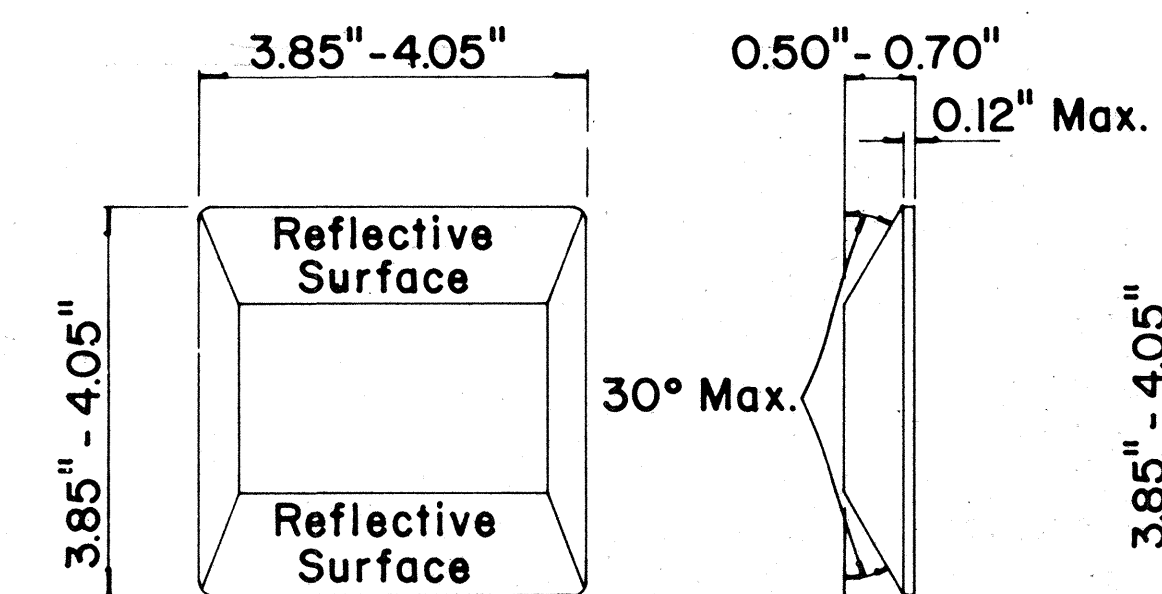
TYPE J

NON - REFLECTIVE YELLOW MARKER



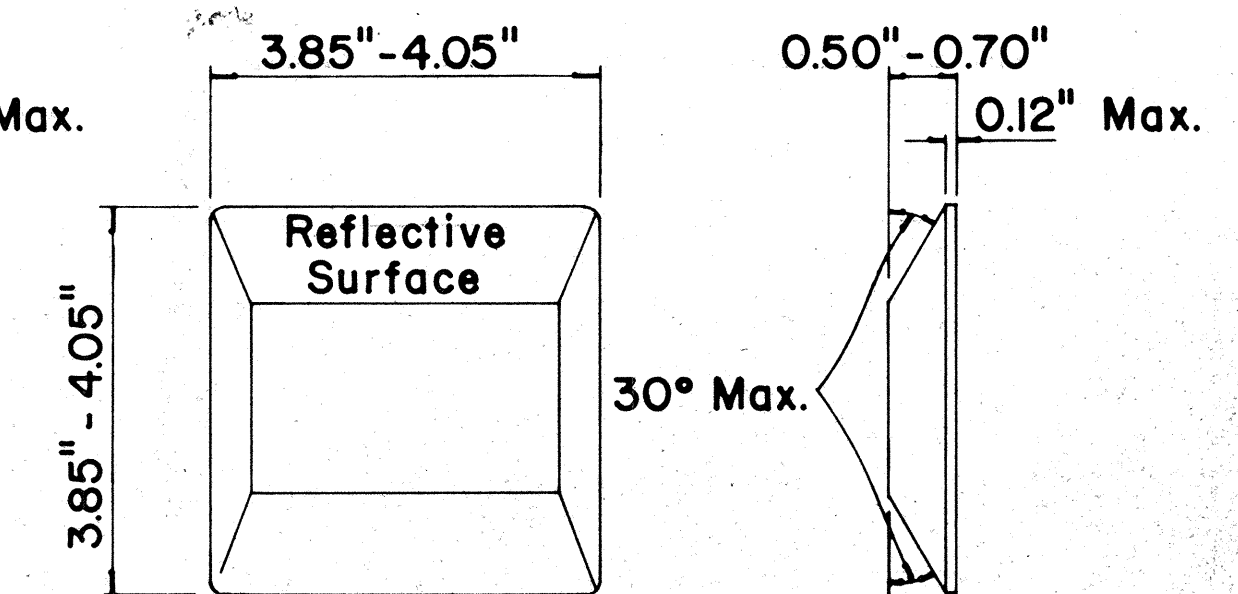
TYPE C

RED - CLEAR REFLECTIVE MARKER



TYPE D

TWO - WAY YELLOW REFLECTIVE MARKER



TYPE H

ONE - WAY YELLOW REFLECTIVE MARKER

GENERAL NOTES

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

LEGEND

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

APPROVAL RECOMMENDED:

Erich Tanaka 7/21/78
TRAFFIC ENGINEER DATE

APPROVED:

Harbert J. Zaleishis 7/24/78
ASSISTANT CHIEF, ENGINEERING DATE

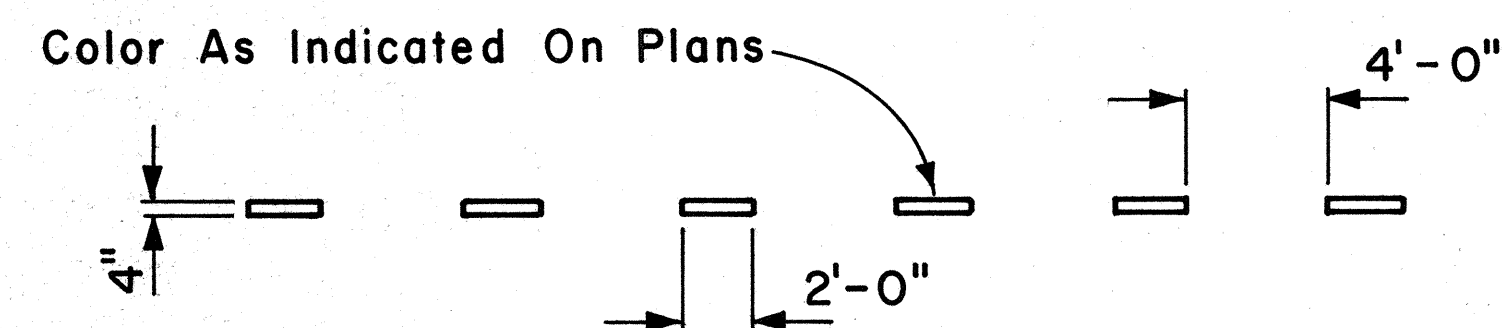
| No. | REVISION | APPROVED BY | DATE |
|-----|--|-------------|----------|
| 1 | Supersedes DT 300 approved 11/18/71. | H.C. | 7/24/78 |
| 2 | Delete Type A Markers from Bike Route Delineation. | H.C. | 10/15/79 |

| |
|--|
| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION |
| STANDARD DETAILS RAISED PAVEMENT MARKERS AND STRIPING |
| Not to Scale July 1978 |
| SHEET No. 3 OF 7 SHEETS DT 300 |

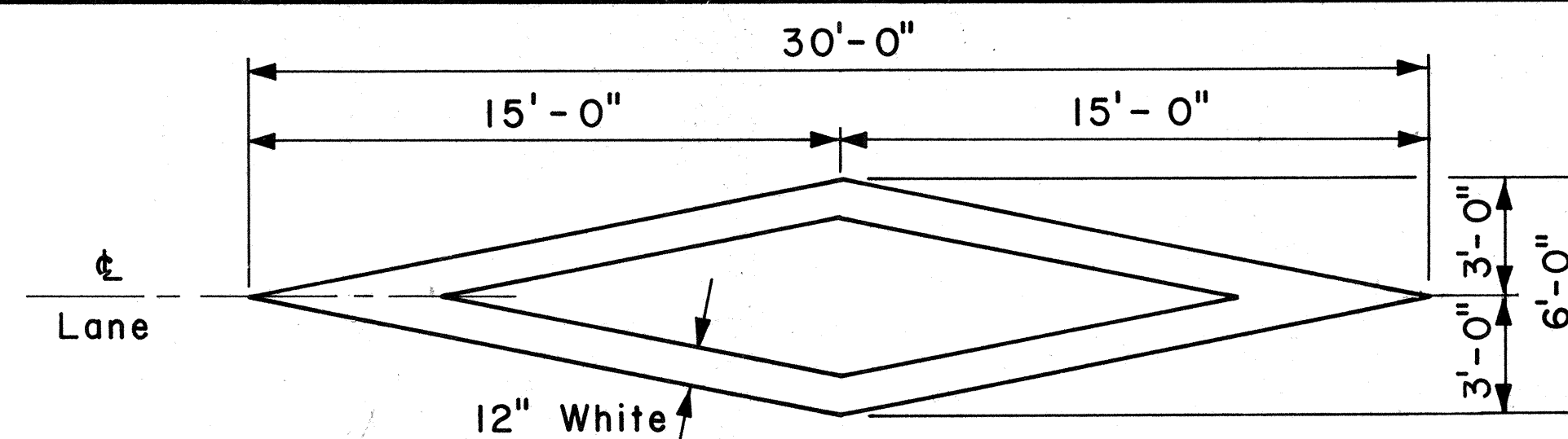
| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------|-------------|-----------|--------------|
| HAWAII | HAW. | HWY-0-01-83M | 1983 | 20 | 23 |

GENERAL NOTES:

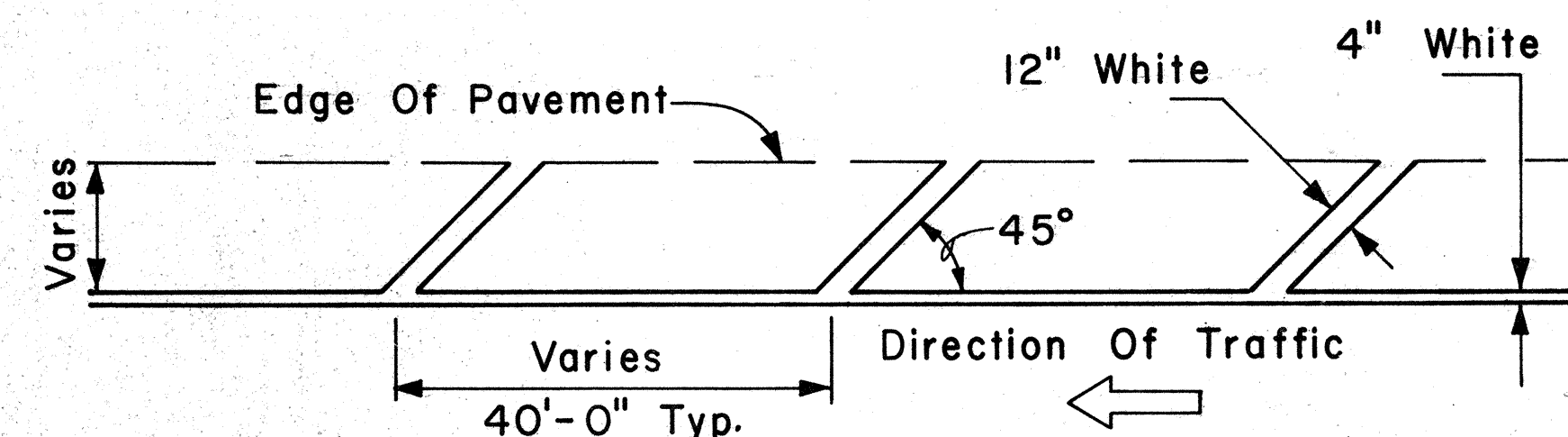
1. Pavement marking and striping shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," by the FHWA, and as amended.
2. Layout of pavement markings and striping shall be done by the Contractor. The Contractor shall check layout of markings and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



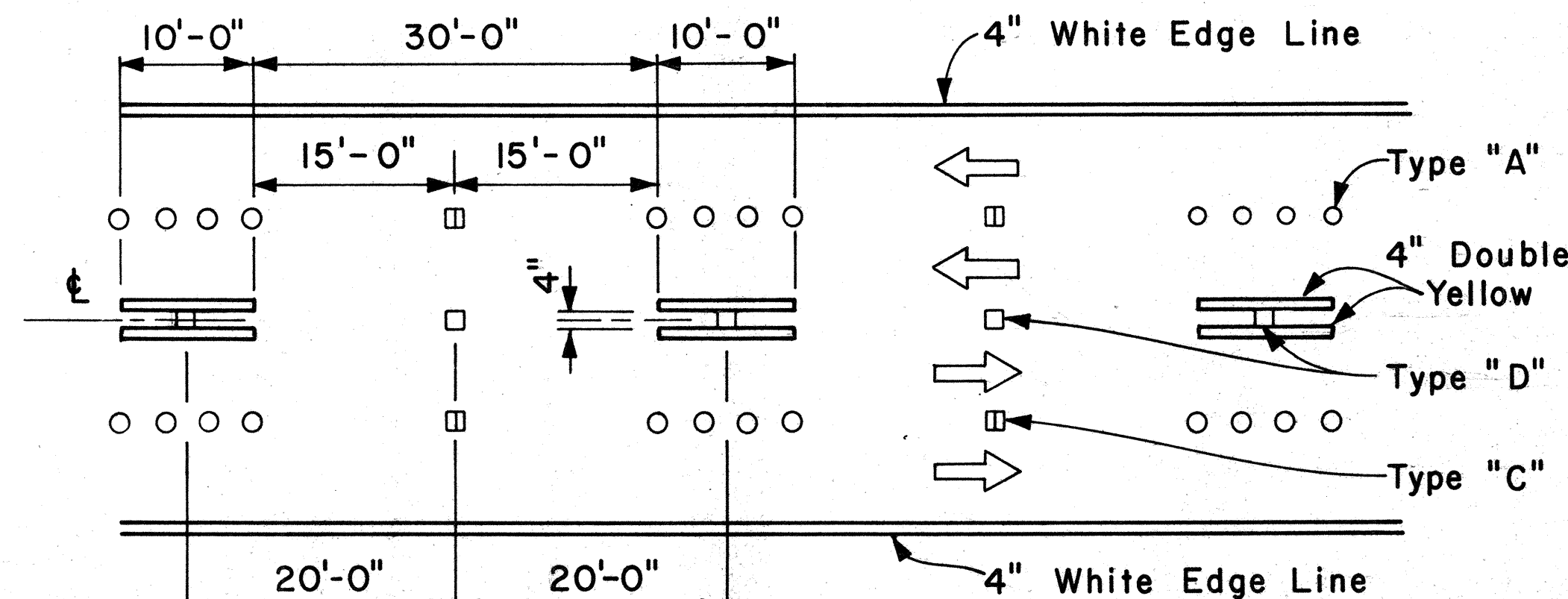
4" GUIDE LINE



PAVEMENT DIAMOND

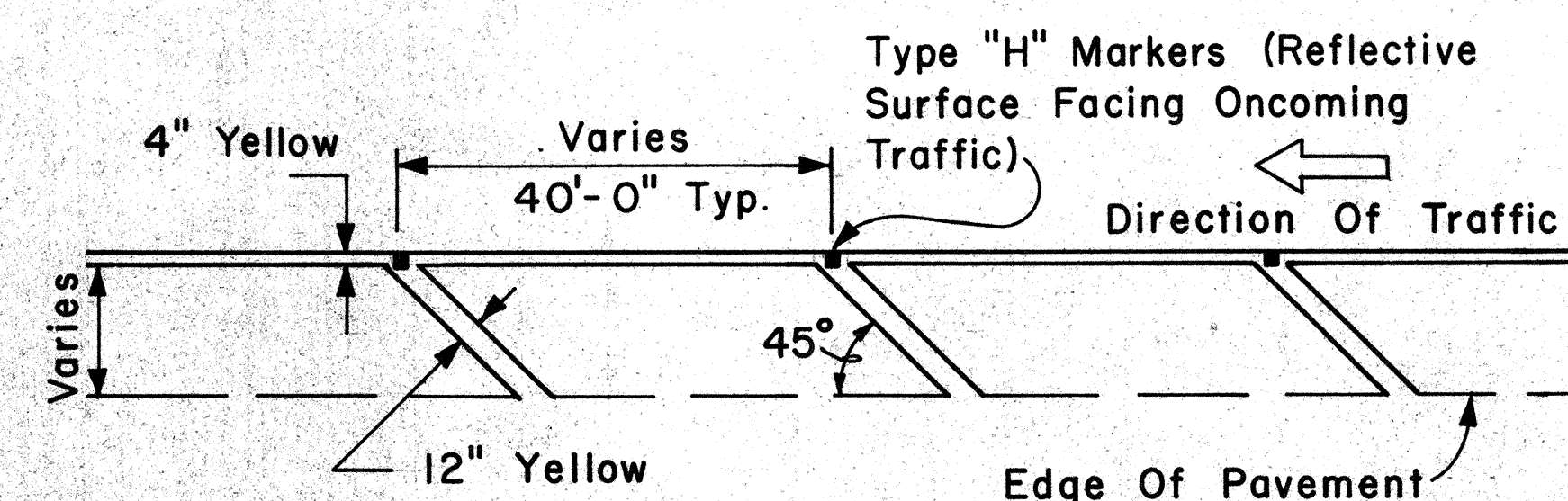


TRANSVERSE RIGHT SHOULDER MARKING

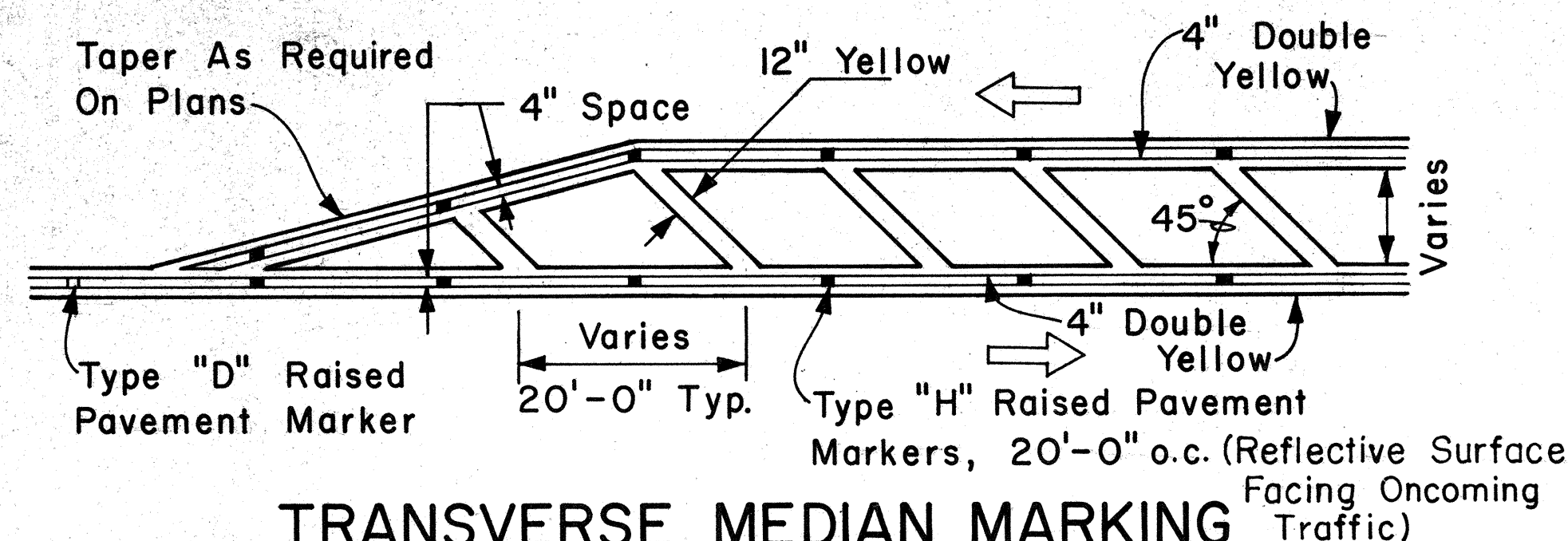


NOTE: Traffic Cone Usage Required.

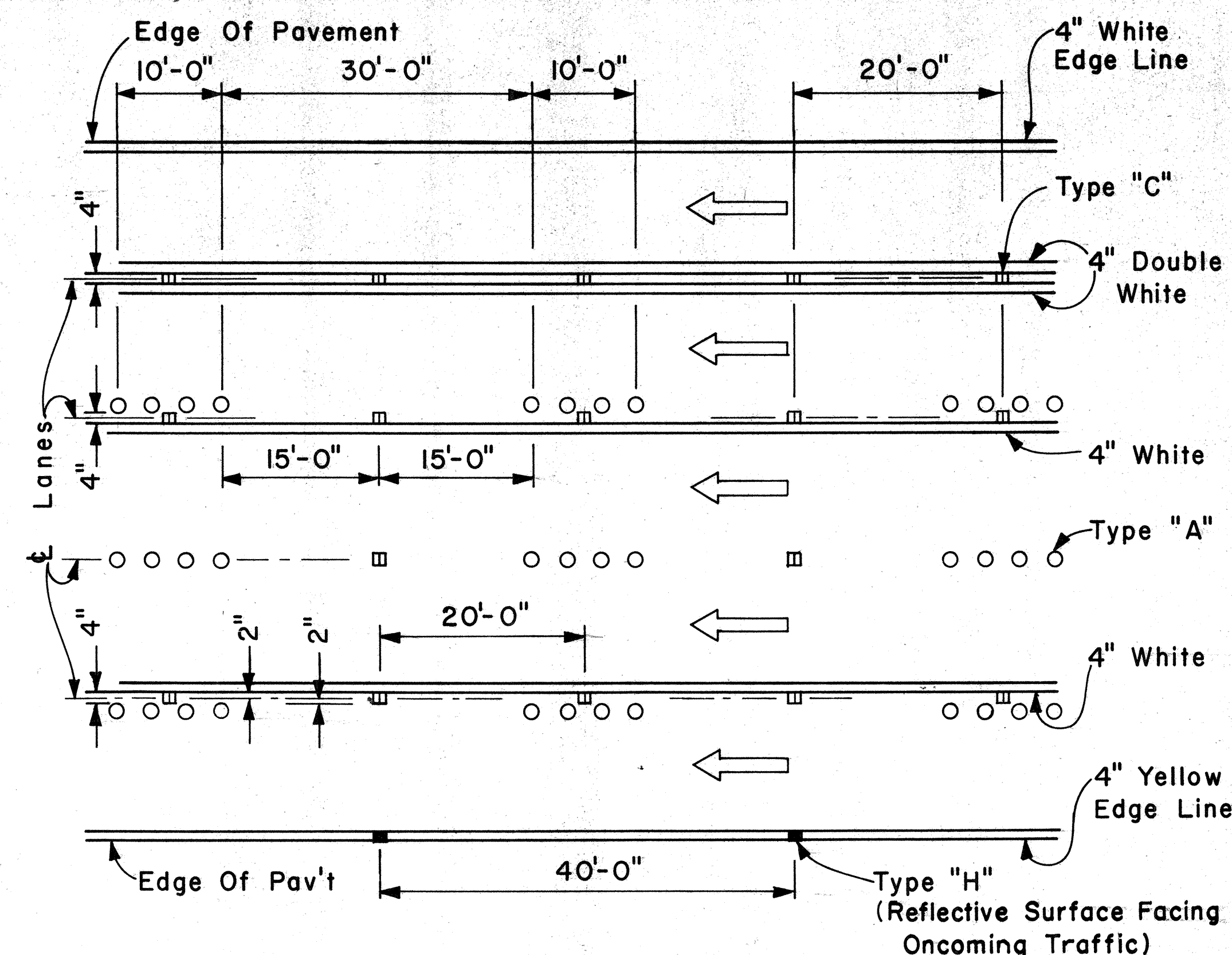
MULTI-LANE REVERSIBLE LANES



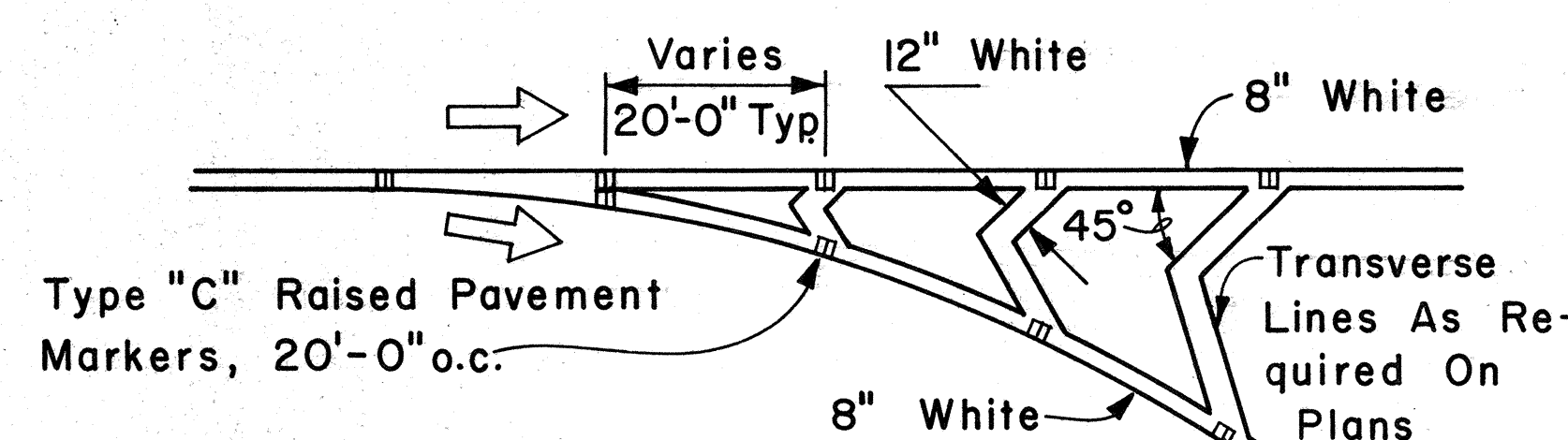
TRANSVERSE LEFT SHOULDER MARKING



TRANSVERSE MEDIAN MARKING



MULTI-LANE LANE CHANGE RESTRICTION ZONES



CHANNELIZING ISLAND

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

APPROVED:
ASSISTANT CHIEF, ENGINEERING *Shervin Z. Zakei* 5/2/78 DATE

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

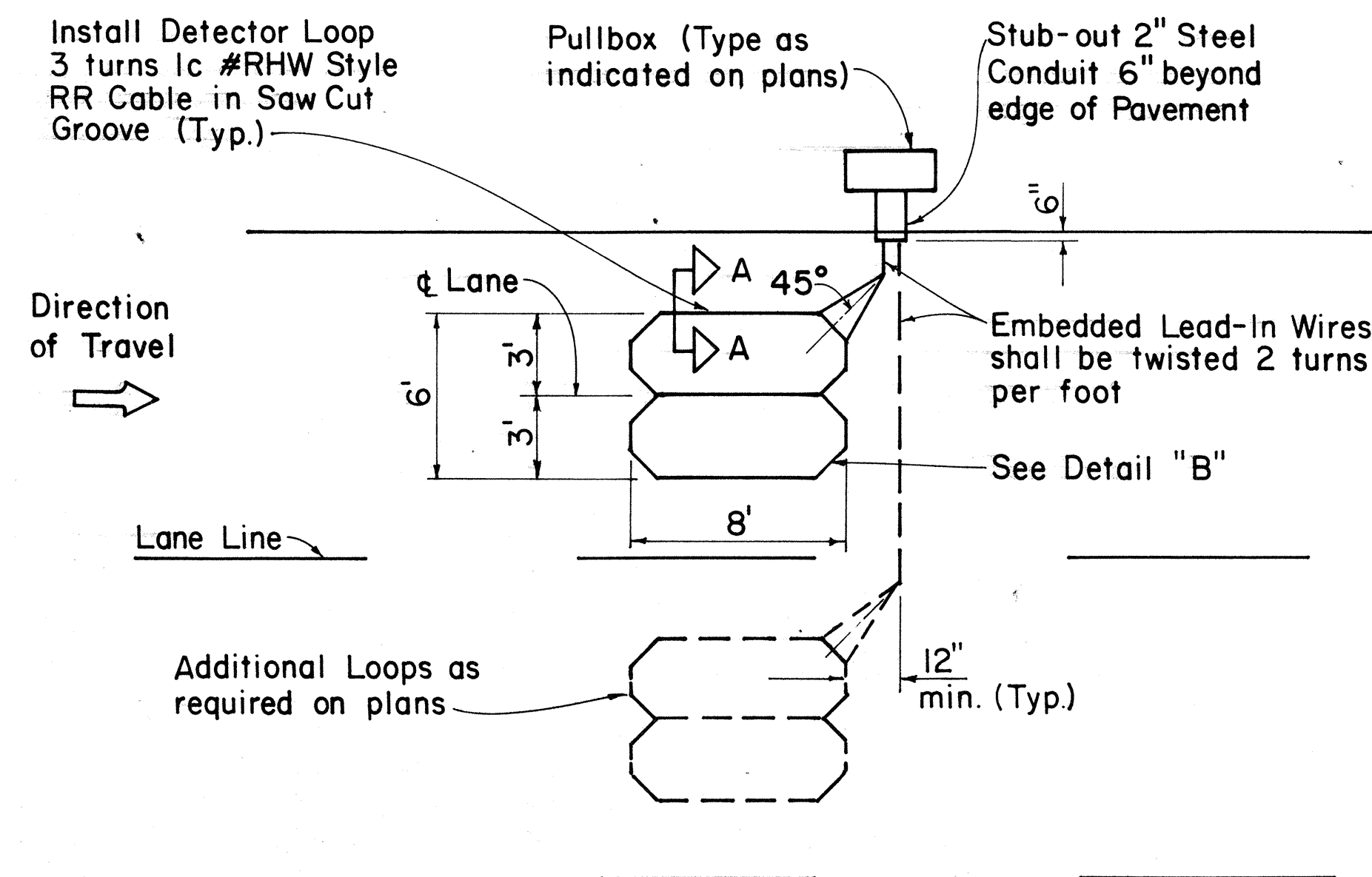
STANDARD DETAILS

MISCELLANEOUS
PAVEMENT MARKINGS

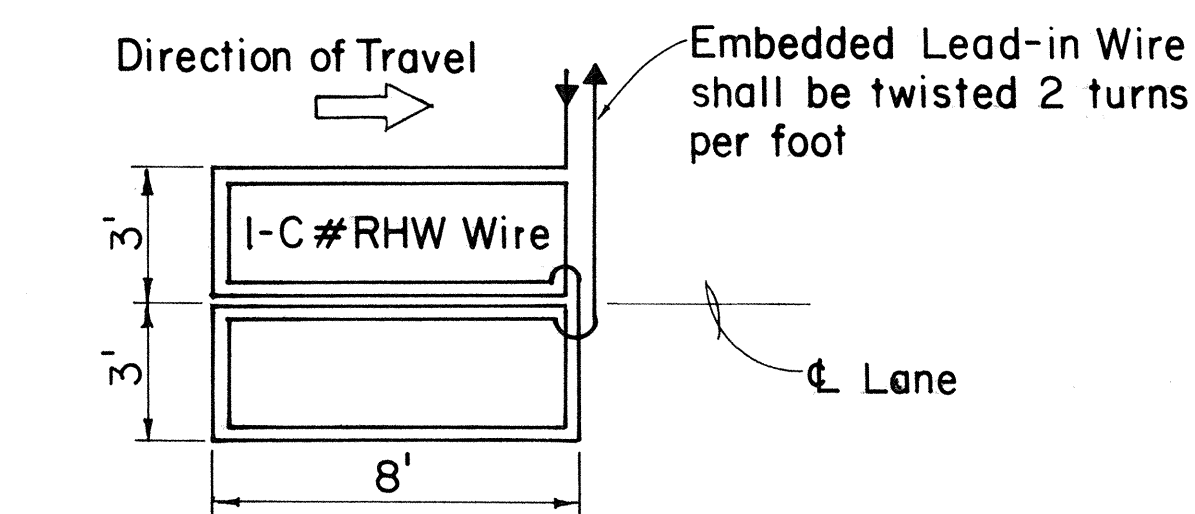
Scale: Not to Scale Date: April, 1978

SHEET No. 4 OF 7 SHEETS DT 302

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-------------|-------------|-----------|--------------|
| HAWAII | HAW. | HWY-0-01-83 | 1983 | 22 | 23 |

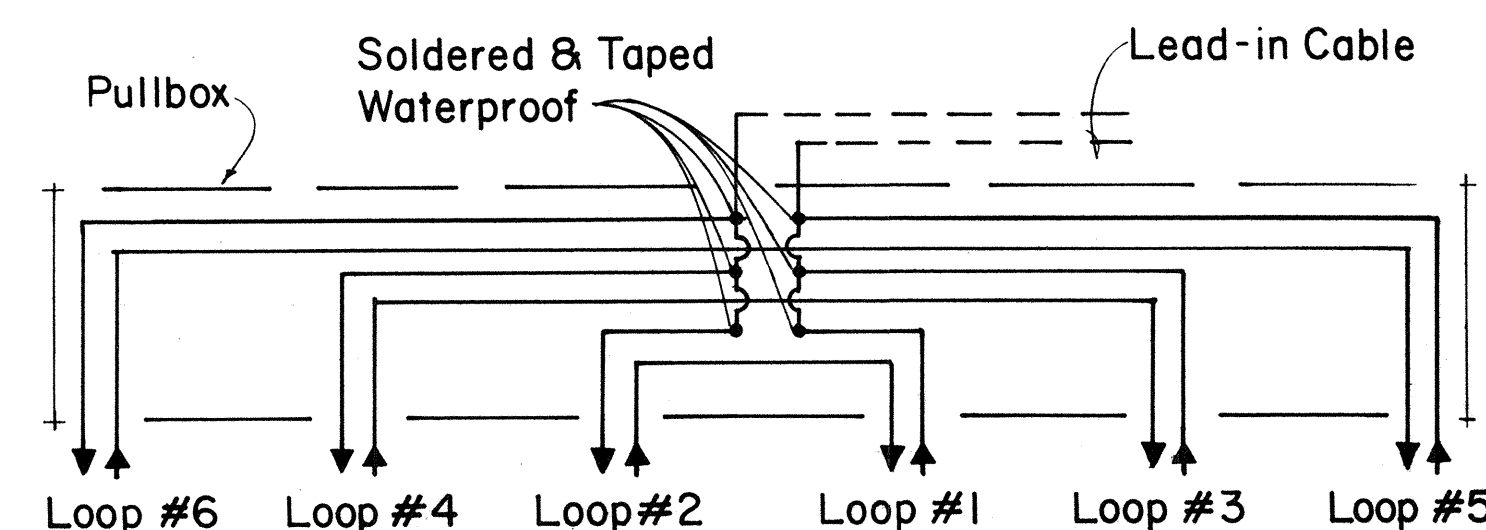
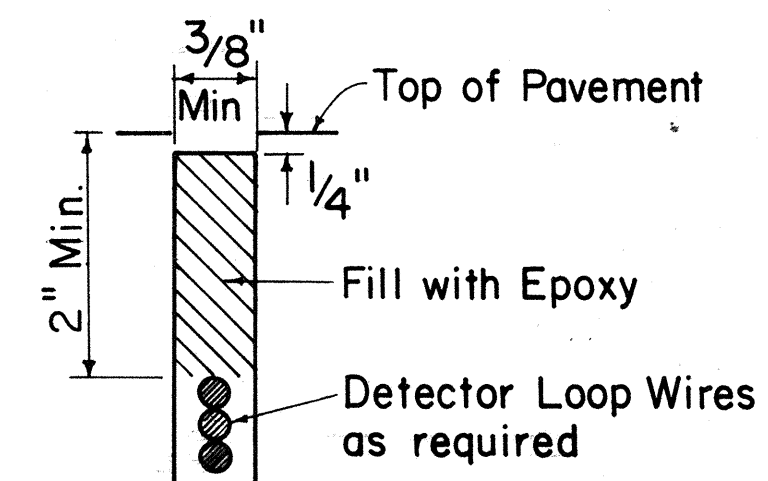


SINGLE LOOP LAYOUT



WIRING DIAGRAM

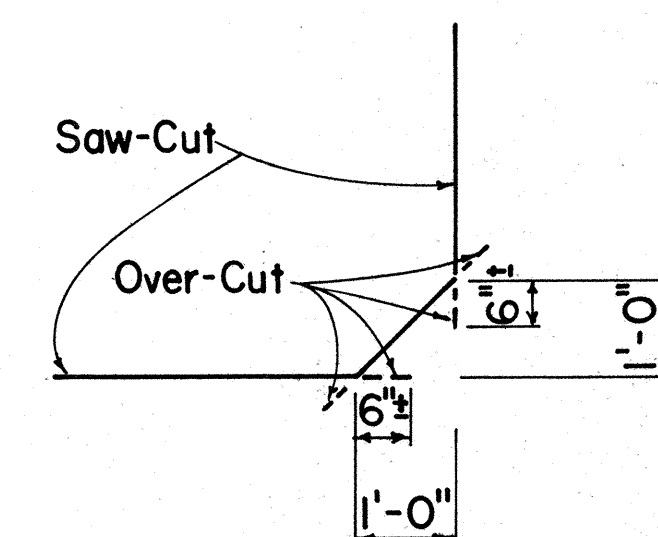
DETECTOR LOOP SAW-CUT SECTION A-A (TYPICAL)



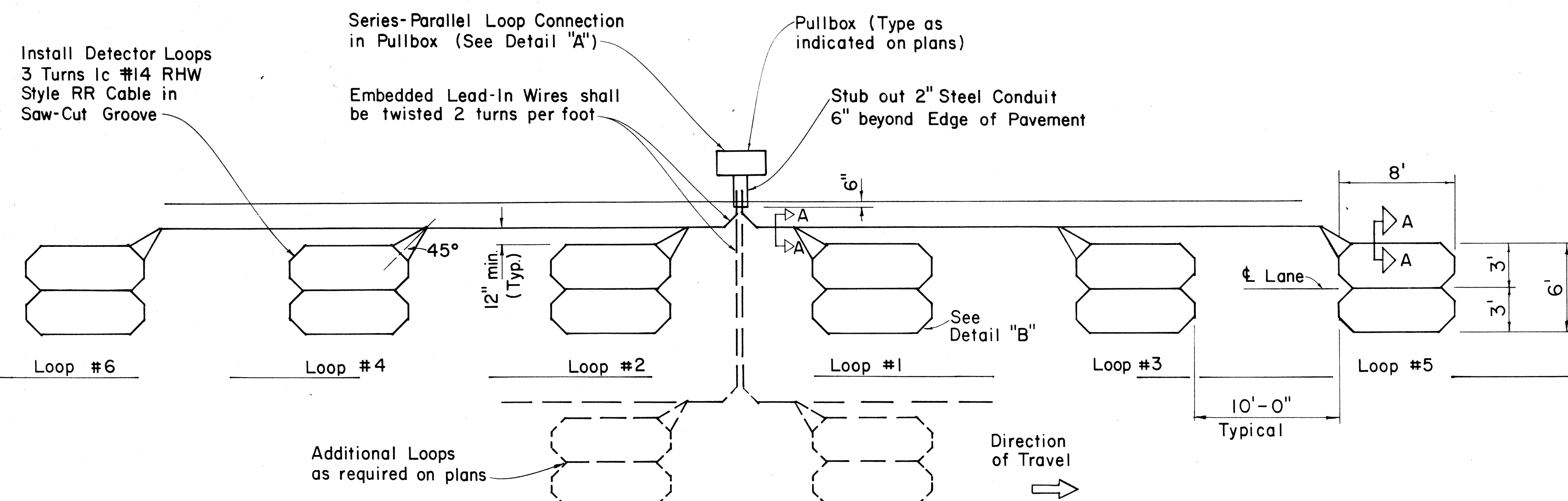
DETAIL "A"

TYPICAL SERIES-PARALLEL LOOP CONNECTION

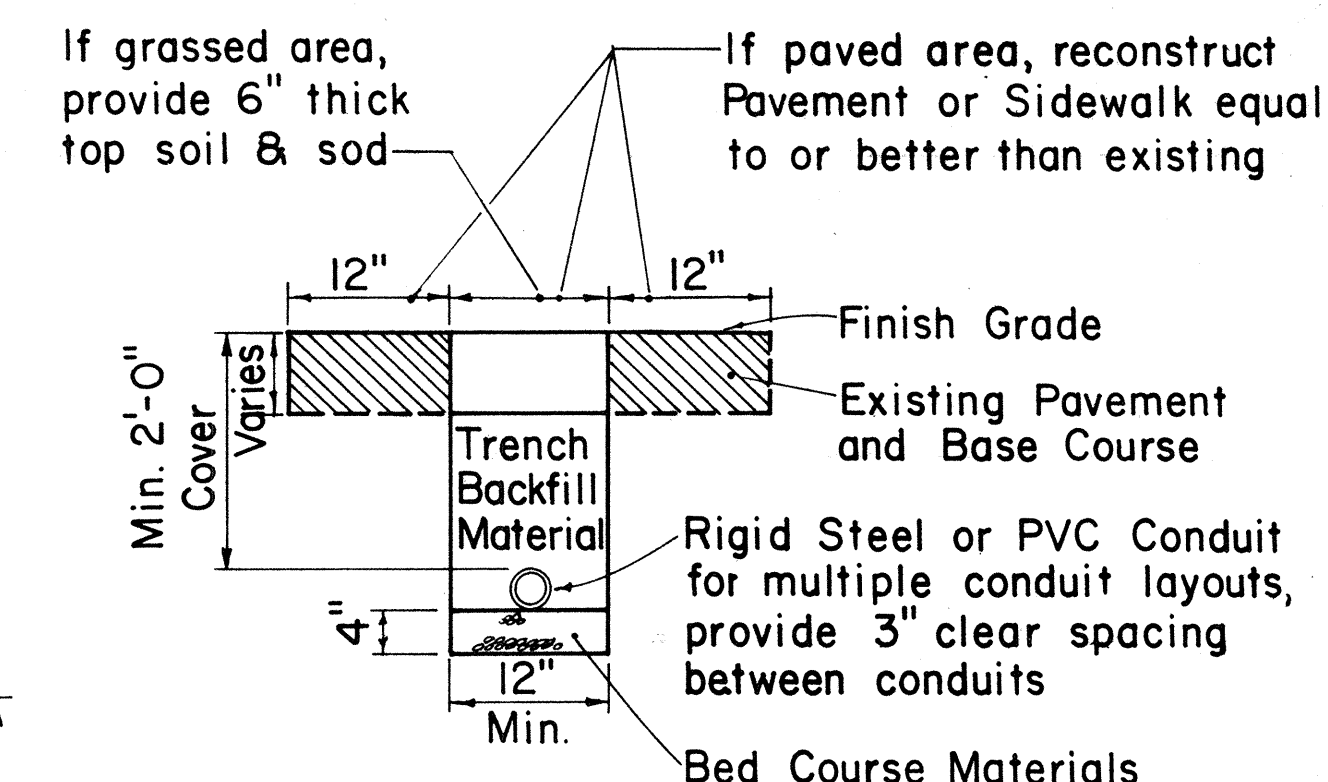
Note: Back-Fill Over-Cuts with Epoxy



DETAIL "B" SAW-CUT AT CORNERS



MULTIPLE LOOP LAYOUT



TYPICAL TRENCH SECTION FOR CONDUIT

NOTE:

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

APPROVAL RECOMMENDED:

Erich Tanaka 9/26/80
TRAFFIC ENGINEER DATE

APPROVED:

Robert J. Feish 9/30/80
ASSISTANT CHIEF, ENGINEERING DATE

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

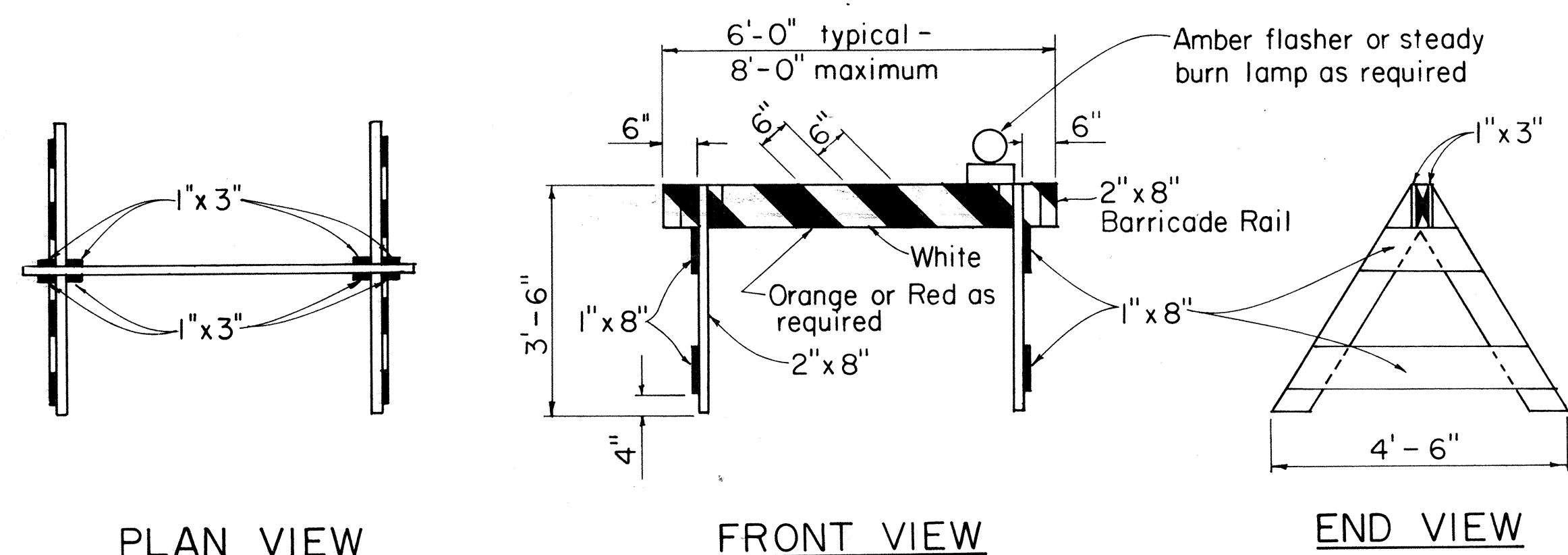
STANDARD DETAILS

LOOP DETECTORS

Not to Scale

SHEET NO. 6 OF 7 SHEETS DT 405

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------|-------------|-----------|--------------|
| HAWAII | HAW. | HWY-0-01-83M | 1983 | 23 | 23 |



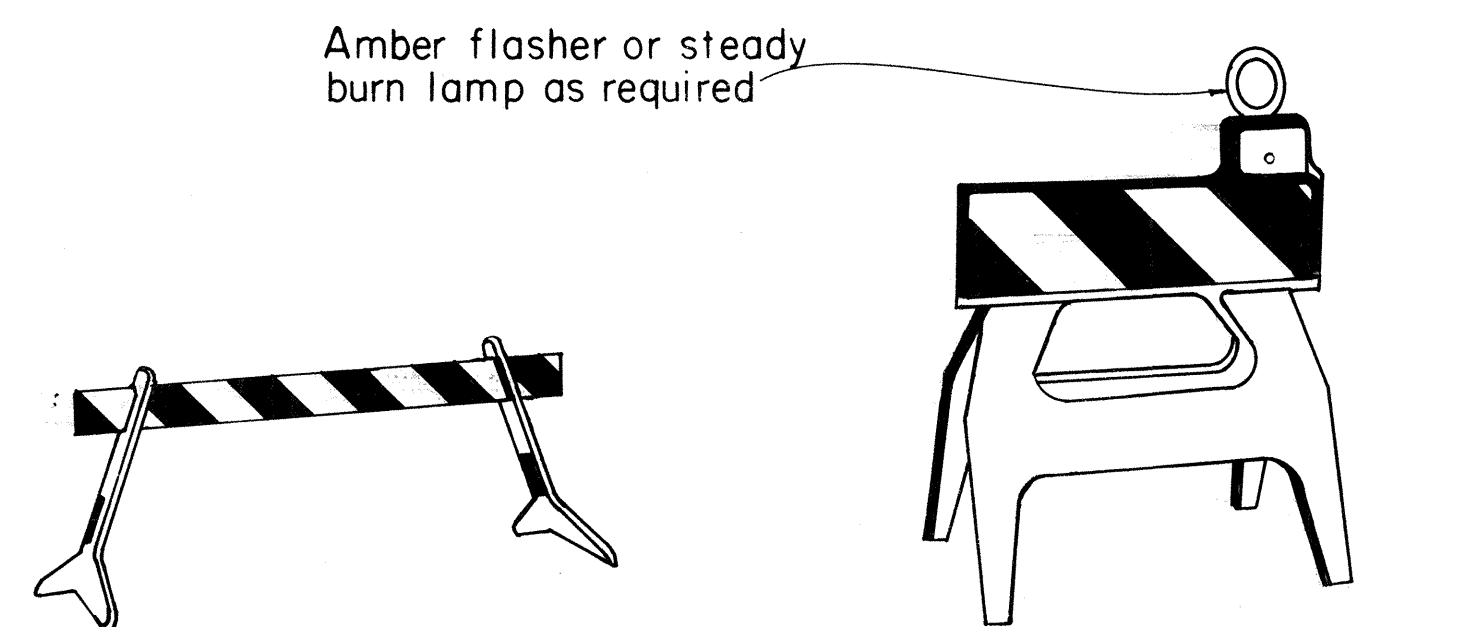
PLAN VIEW

FRONT VIEW

END VIEW

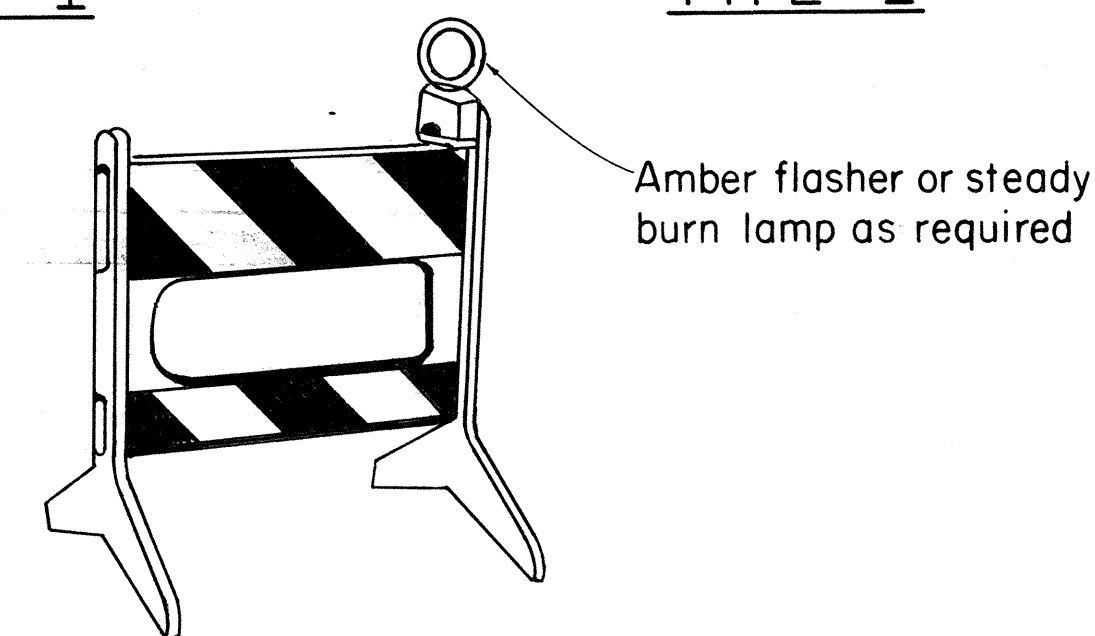
TYPE I BARRICADE

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



TYPE I

TYPE I

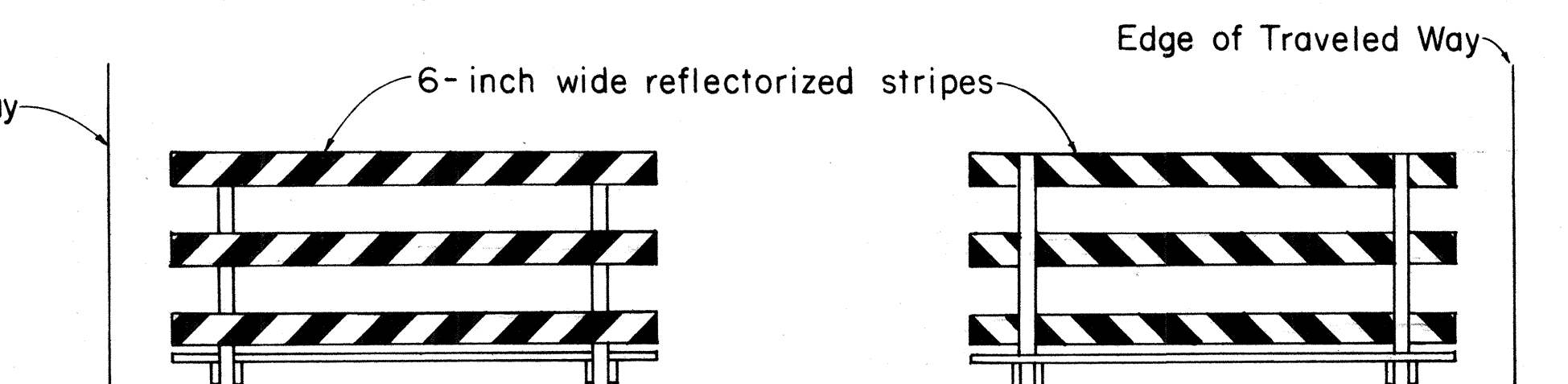


TYPE II

PLASTIC MOLDED BARRICADE OPTIONS*

Not to Scale

* Shop Drawings must be submitted for approval.



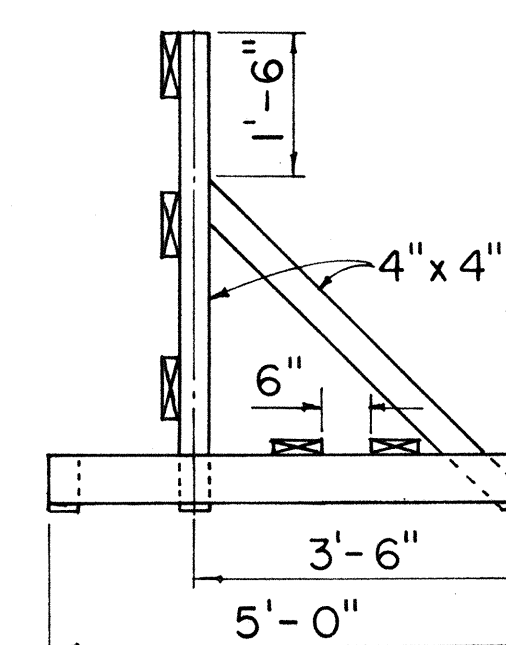
FRONT FACE

BACK FACE

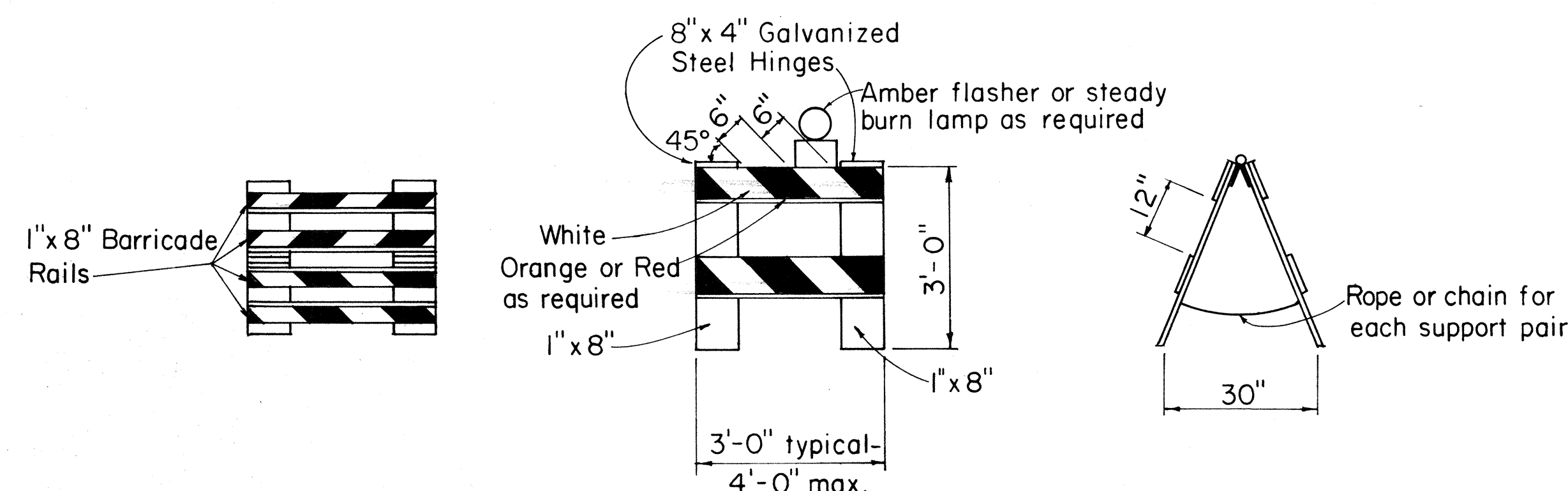
TYPICAL BARRICADE STRIPING DETAILS**

Not to Scale

** Similar for Types I & II



END VIEW



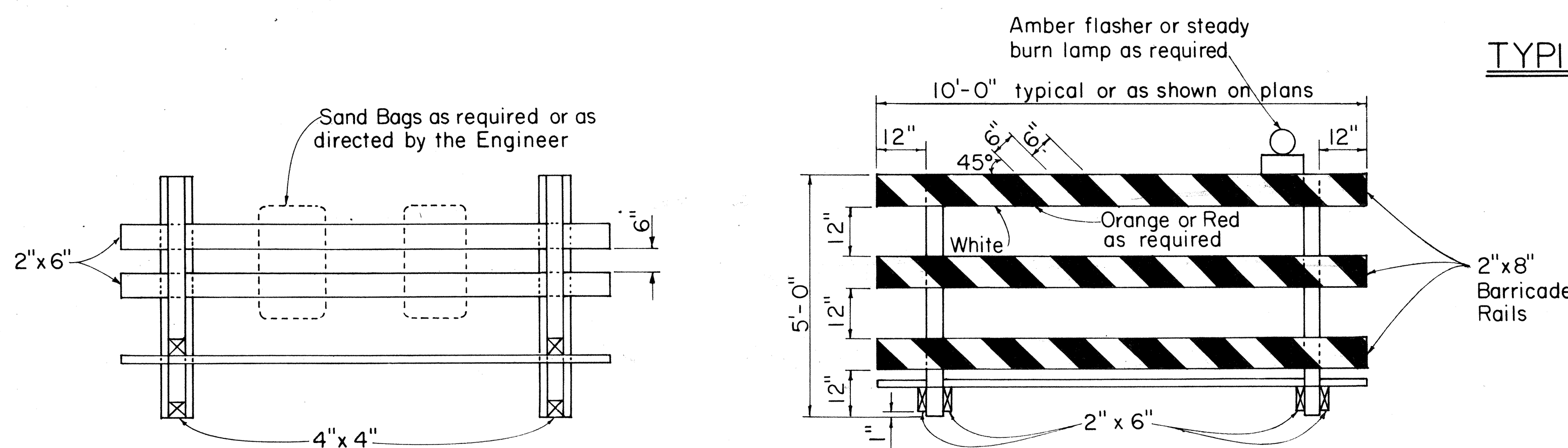
PLAN VIEW

FRONT VIEW

END VIEW

TYPE II BARRICADE

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



PLAN VIEW

FRONT VIEW

TYPE III BARRICADE

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

APPROVAL RECOMMENDED:
Eishi Tanaka 10/21/81
 TRAFFIC ENGINEER DATE

APPROVED:
Albert S. S. S. S. 10/23/81
 ASSISTANT CHIEF, ENGINEERING DATE

| NO. | REVISION | APPROVED BY | DATE |
|-----|-------------------------------------|-------------|----------|
| 1 | Supersedes DT 800 Approved 12/30/69 | H.T. | 10/23/81 |

| |
|--|
| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION |
| STANDARD DETAILS |
| BARRICADES |
| SCALE: As Shown |
| SHEET No. 7 OF 7 SHEETS DT 800 |