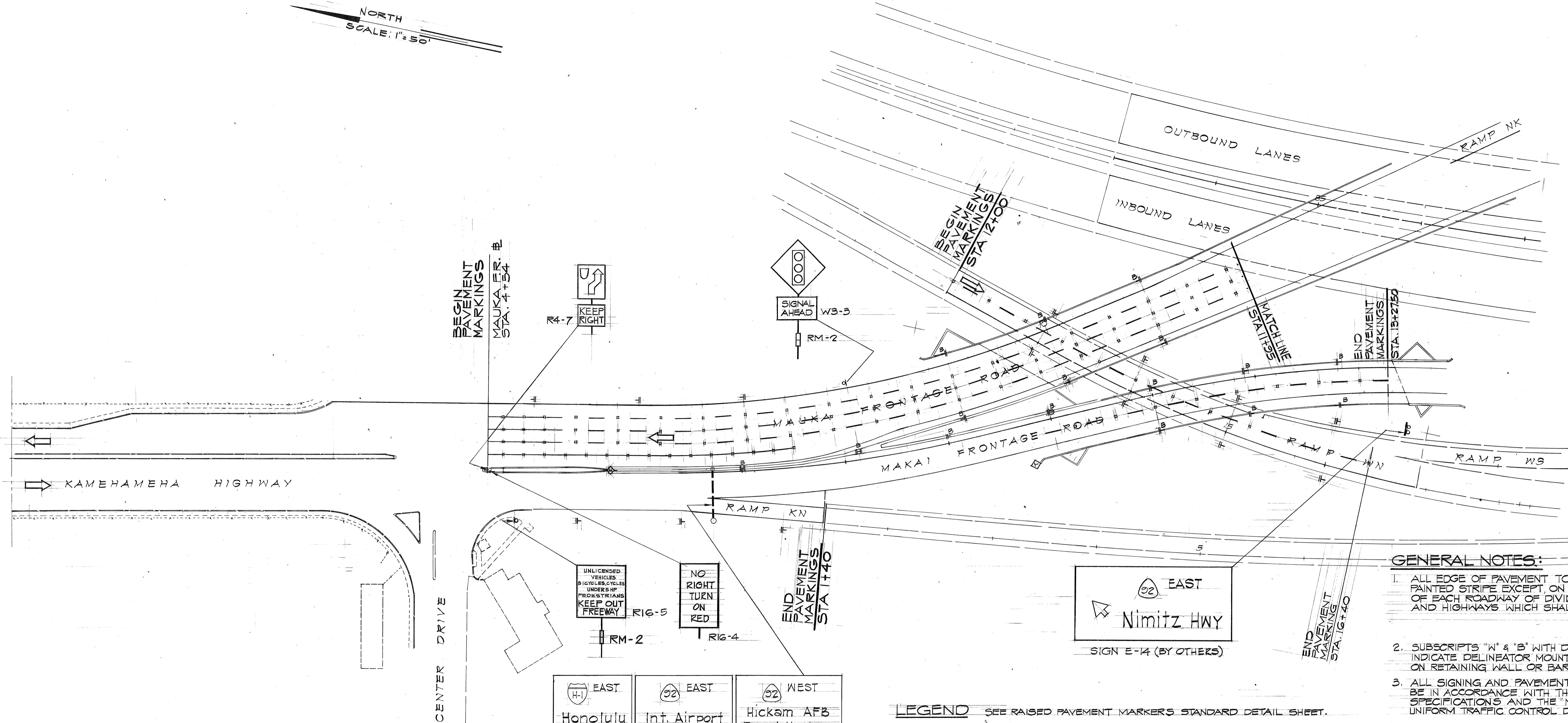


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(110):15	1973	74	220

NORTH  
SCALE: 1"=50'



- GENERAL NOTES:**
- ALL EDGE OF PAVEMENT TO BE WHITE PAINTED STRIPE EXCEPT ON THE LEFT EDGE OF EACH ROADWAY OF DIVIDED STREETS AND HIGHWAYS WHICH SHALL BE YELLOW.
  - SUBSCRIPTS "W" & "B" WITH DELINEATORS INDICATE DELINEATOR MOUNTED DIRECTLY ON RETAINING WALL OR BARRIER RESPECTIVELY.
  - ALL SIGNING AND PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

UNLICENSED VEHICLES, BICYCLES, CYCLES, UNDER 18 FEET STRAINS, KEEP OUT FREEWAY RIG-5 RM-2

NO RIGHT TURN ON RED RIG-4 RM-2

END PAVEMENT MARKINGS STA 13+40

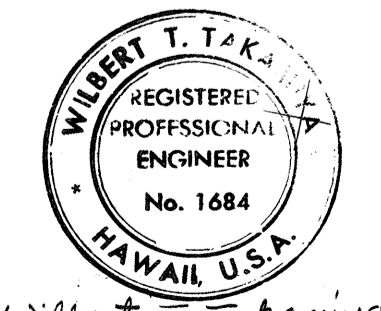
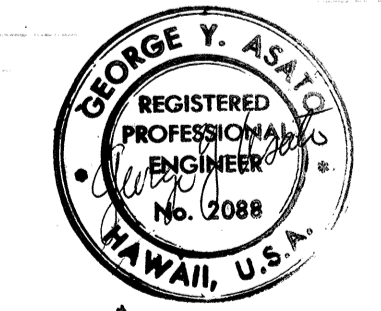
92 EAST Nimitz HWY SIGN E-14 (BY OTHERS)

92 EAST Honolulu  
92 EAST Int. Airport  
92 WEST Hickam AFB Pearl Harbor  
SIGN E-2 (BY OTHERS)

**NOTE:**  
CONSTRUCT SIGN E-2 BARRIER FOUNDATION ONLY, FOR DETAIL SEE SHEET 21

- LEGEND** SEE RAISED PAVEMENT MARKERS STANDARD DETAIL SHEET.
- RAMP LANE LINE (TYPE A & C PAVEMENT MARKERS)
  - CHANNELIZING LINE (TYPE C PAVEMENT MARKERS & WHITE PAINTED STRIPE)
  - CENTERLINE PASSING NOT PERMITTED (YELLOW PAINTED DOUBLE STRIPE)
  - CENTERLINE PASSING PERMITTED (18" YELLOW STRIPE SPACED 25' APART)
  - DOTTED LANE LINE EXTENSION (2' WHITE STRIPE SPACED 20' APART)
  - RM-2
  - RM-9

DATE	REVISION
11/14/75	DELETED FREEWAY LANE LINE (TYPE A & C PAVEMENT MARKERS) FROM H-1 INBOUND AND OUTBOUND LANES
7/25/75	DELETED PAVEMENT STRIPING PAVEMENT MARKERS, REFLECTOR MARKERS AND SIGNING FROM MAKAI FRONTAGE ROAD STA 4+72.50 TO 9+50.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SIGNING AND PAVEMENT MARKING PLAN**

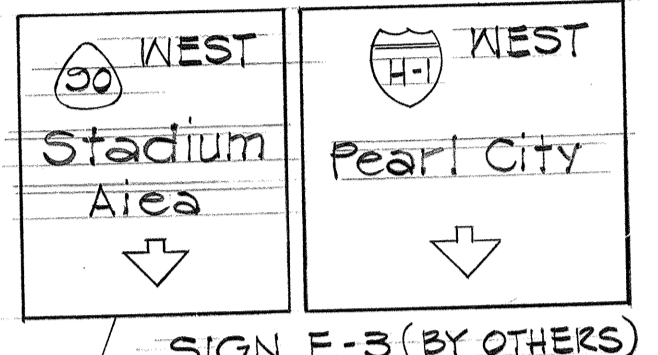
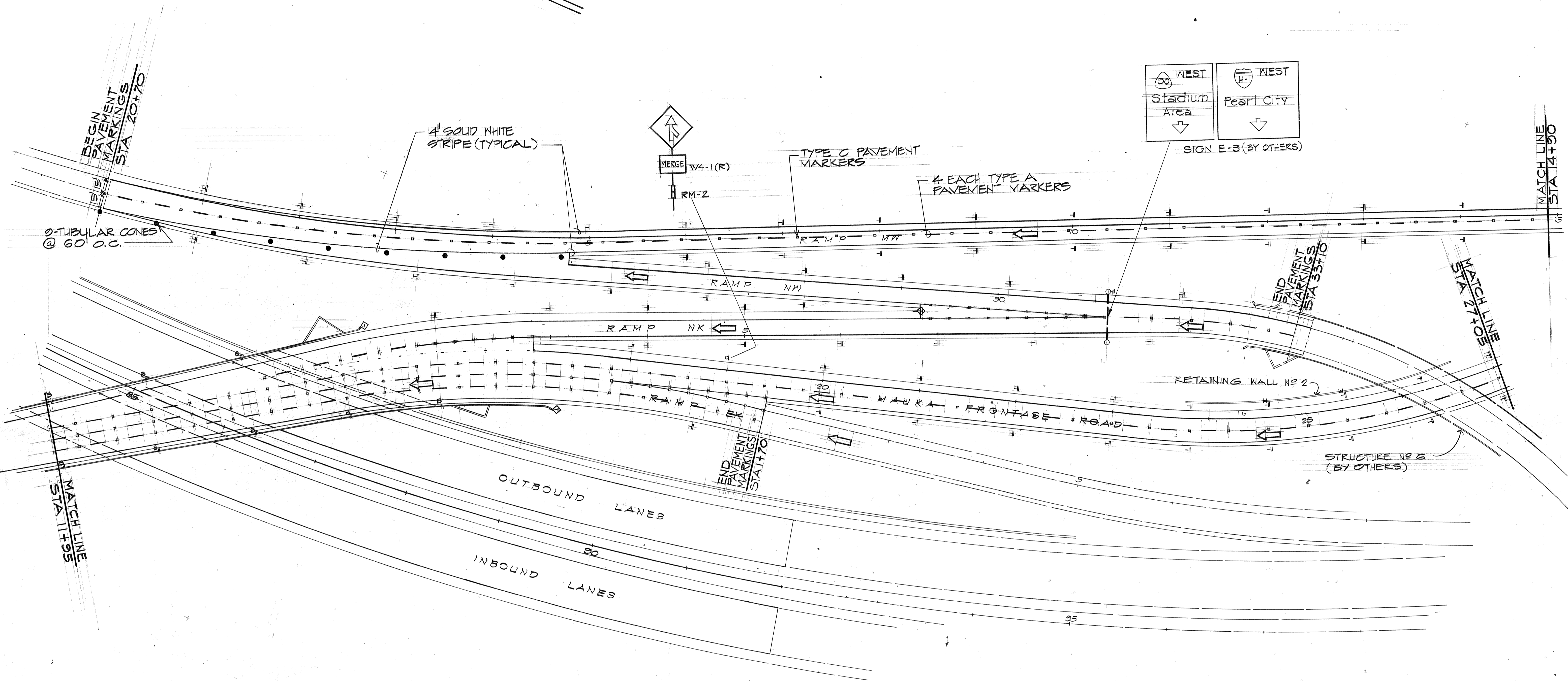
PEARL HARBOR INTERCHANGE  
F.A.I. PROJ. NO. H1 - 1(110):15

SCALE: AS SHOWN DATE: MAY 28 1973  
SHEET No. 1 OF 19 SHEETS

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	

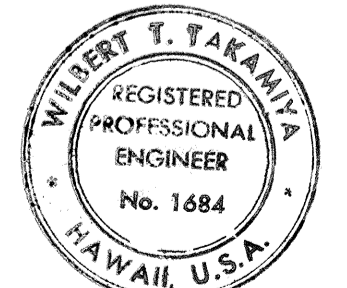
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(110)15	1973	75	220

NORTH  
SCALE: 1"=50'



ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
CHECKED BY	
NO.	

DATE	REVISION
5/5/76	DELETED CHANNELIZING LINE (TYPE C & WHITE PAINTED STRIPE) AT RAMP MW GORE
5/5/76	ADDED LANE ON RAMP MW
11/19/75	DELETED FREEWAY LANE LINE (TYPE A & C PAVEMENT MARKERS) FROM H-1 INBOUND AND OUTBOUND LANES



Wilbert T. Takamiya  
THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SIGNING AND PAVEMENT MARKING PLAN**

PEARL HARBOR INTERCHANGE  
F.A.I. PROJ. NO. HI-1(110):15

SCALE: AS SHOWN      DATE: MAY 28 1973  
SHEET NO. 2 OF 19 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-11-1(110):15	1973	76	220

NORTH  
SCALE: 1" = 50'

STRIPING TO STA. 0+00  
CENTERLINE PASSING  
PERMITTED

4 EACH TYPE A  
PAVEMENT MARKERS

TYPE C PAVEMENT  
MARKERS

4" SOLID WHITE  
STRIPE (TYPICAL)

WEST  
Pearl City

SIGN E-15 (BY OTHERS)

NOTE:  
CONSTRUCT SIGN E-15 FOUNDATION ONLY;  
FOR DETAIL SEE SHEET 77

RAMP  
35  
M.P.H.

W13-3(35)

UNLICENSED  
VEHICLES  
BICYCLES  
UNDER 5' HP  
PEDESTRIANS  
KEEP OUT  
FREEWAY

R16-5

RM-2

SEE DETOUR PLANS FOR  
TEMPORARY PAVEMENT  
STRIPING

END PAVT. MARKERS  
STA. 35+00

ULTIMATE STRIPING  
(FUTURE CONSTRUCTION)

ULTIMATE STRIPING  
(FUTURE CONSTRUCTION)

DO NOT  
ENTER  
WRONG  
WAY

RS-1

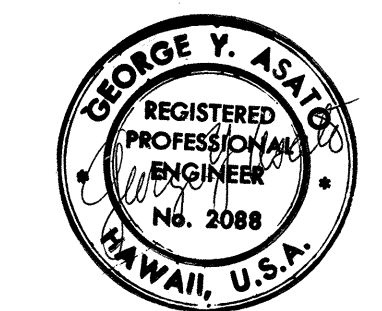
RS-9

WEST Hickam AFB Pearl Harbor	WEST Stadium Aiea	WEST Pearl City NEXT RIGHT
------------------------------------	-------------------------	----------------------------------

SIGN E-4 (BY OTHERS)

NOTE:  
CONSTRUCT SIGN E-4 MAUKA SIDE FOUNDATION ONLY;  
FOR DETAIL SEE SHEET 77

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	



Wilbert T. Tokamiya  
THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION

DATE	REVISION
5/5/76	ADDED LANE ON RAMP MK
11/8/73	DELETED TYPE 2 AGM CURB AND GUTTER ON MAUKA F.R. FROM STA. 39+88.88 TO STA. 41+56.14 RT.
CO#15	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SIGNING AND PAVEMENT MARKING PLAN**

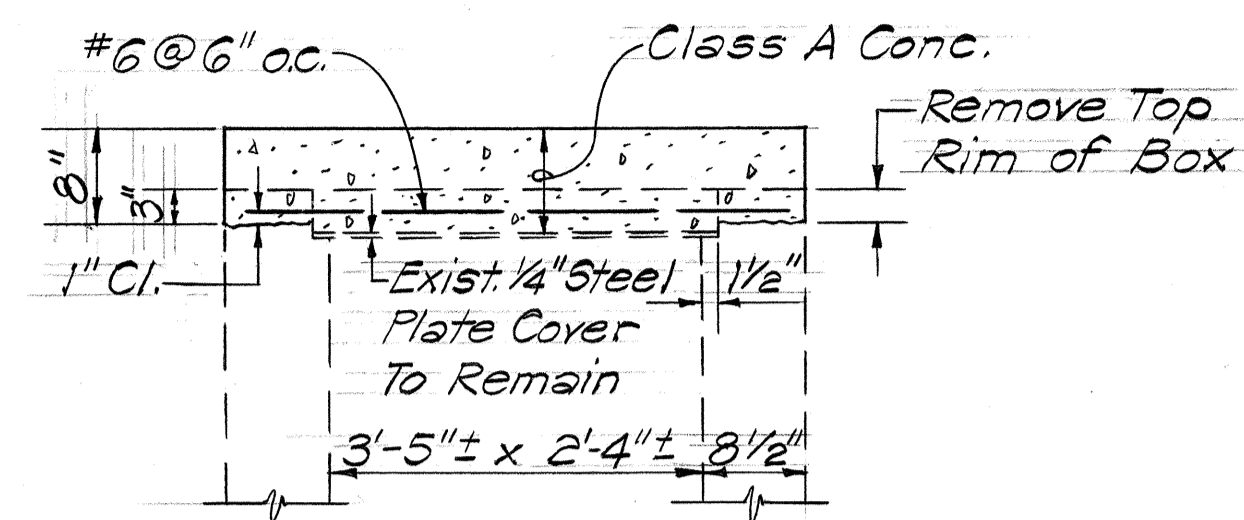
PEARL HARBOR INTERCHANGE  
F.A.I. PROJ. NO. HI-1(110):15

SCALE: AS SHOWN DATE: MAY 28 1973

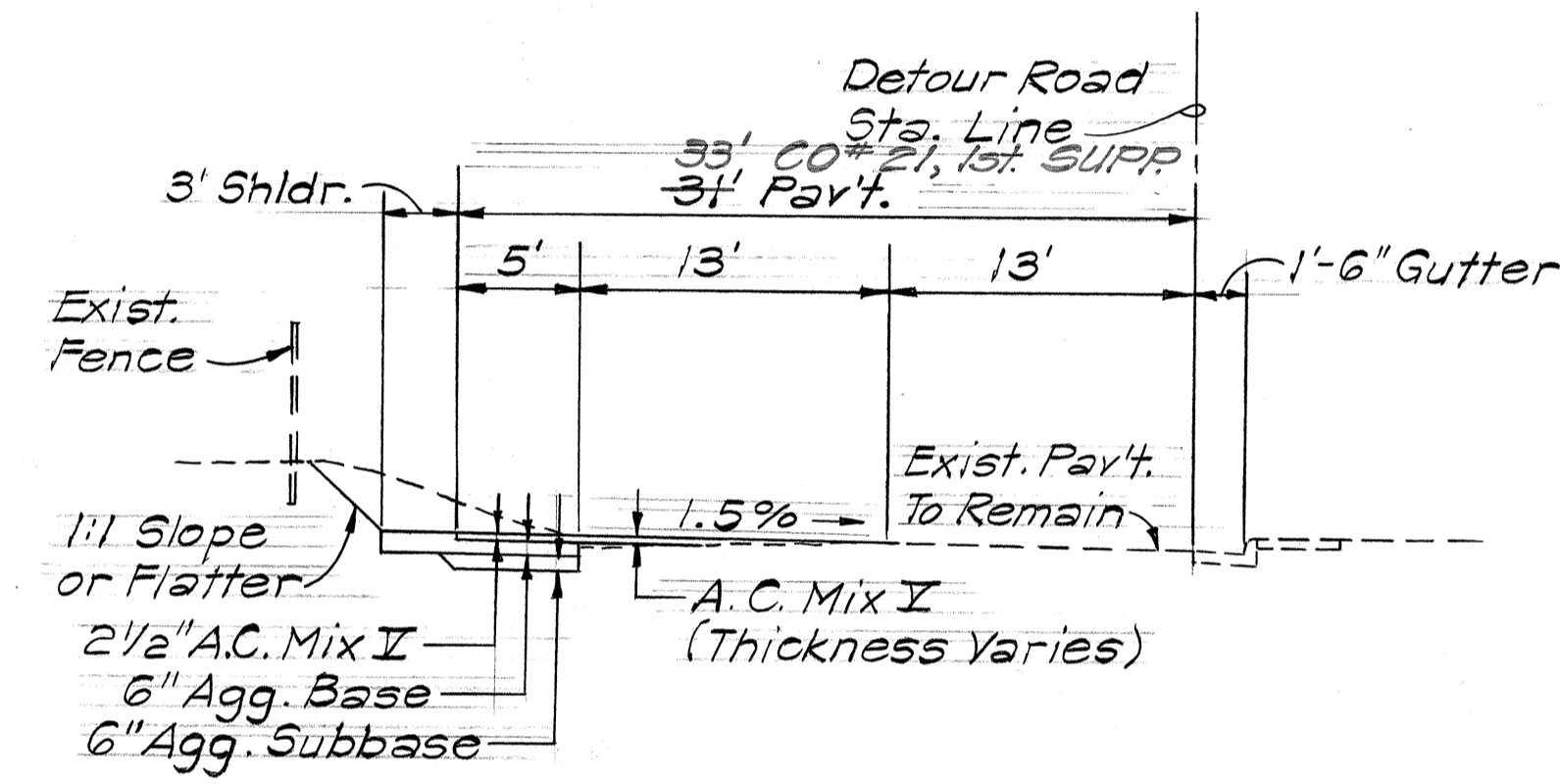
SHEET NO. 3 OF 12 SHEETS



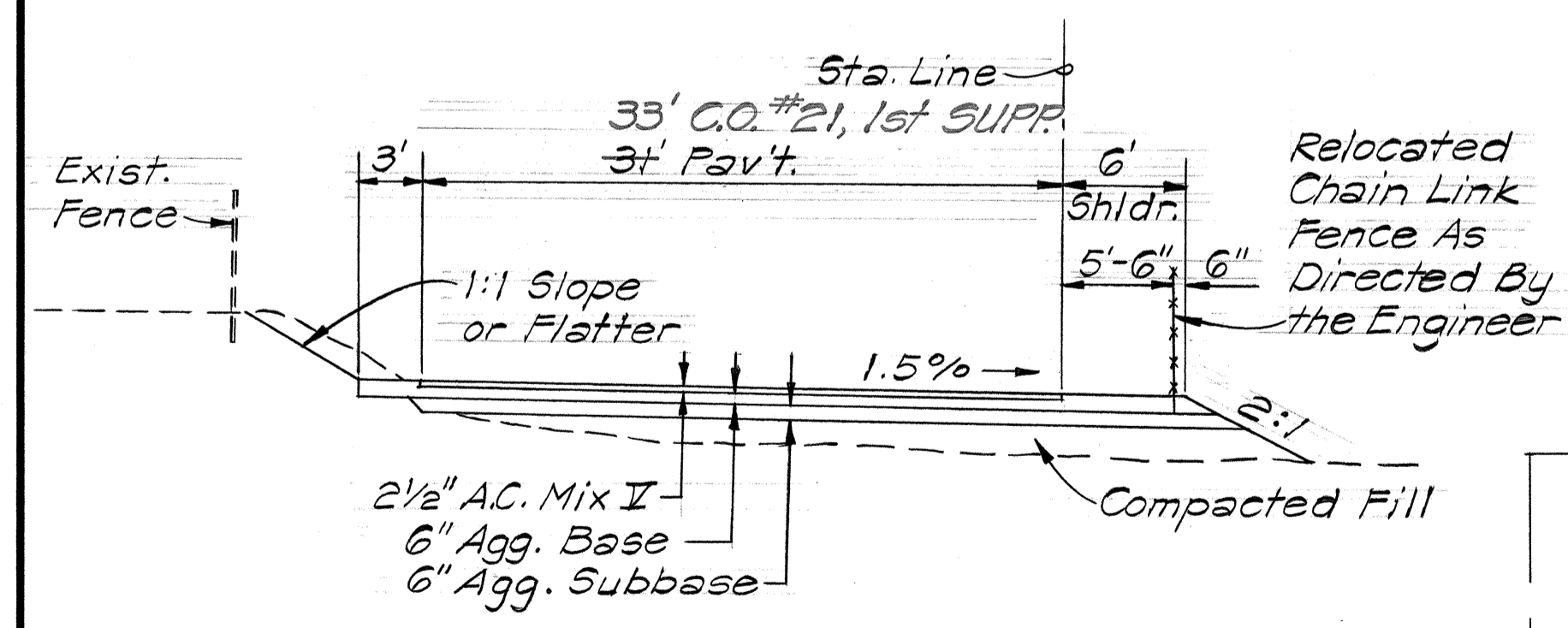
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(10)15	1973	70	220



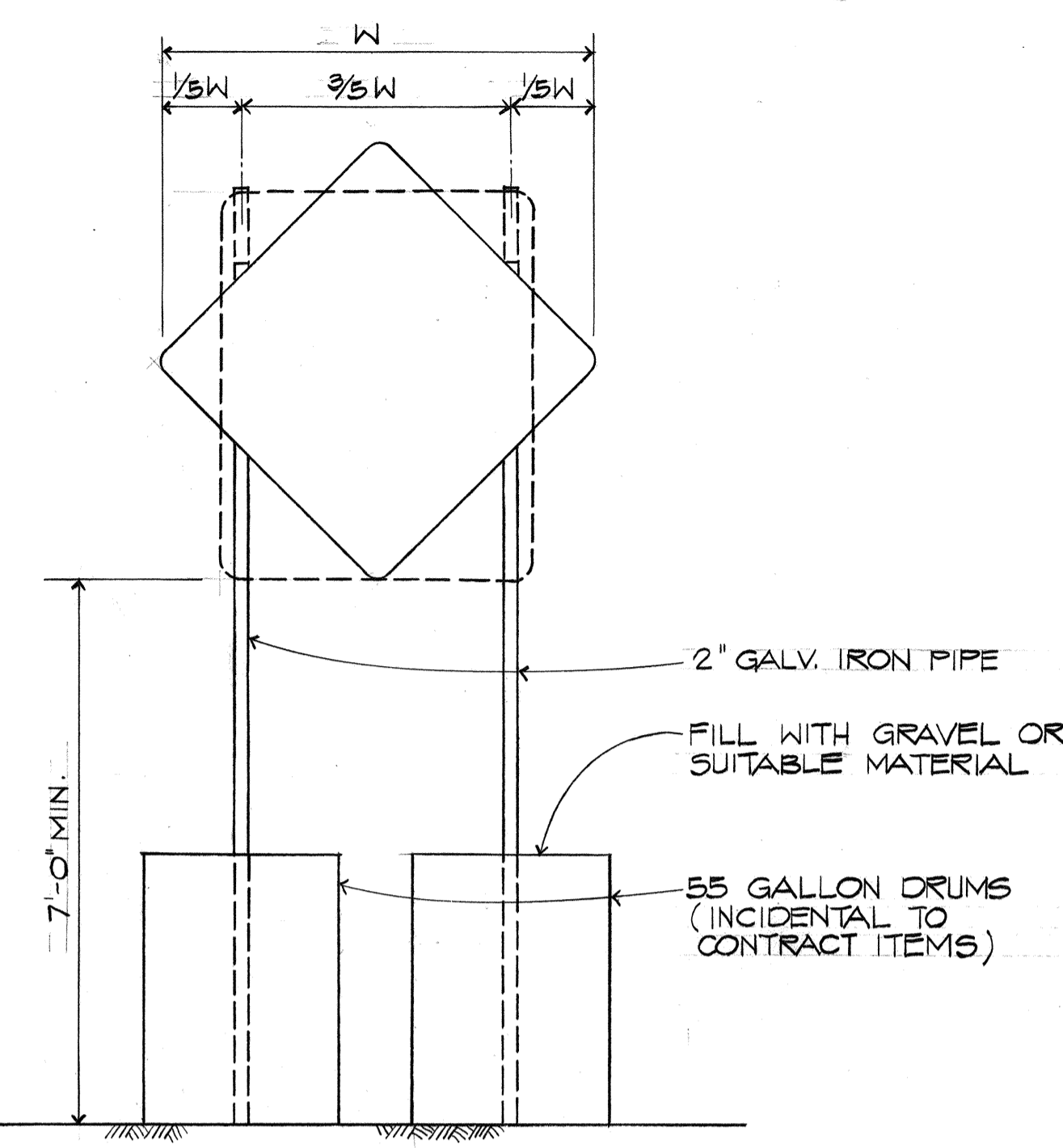
**DETAIL - CONC. COVER OVER BOX**  
 DETOUR ROAD STA. 4+14±  
 Not to Scale



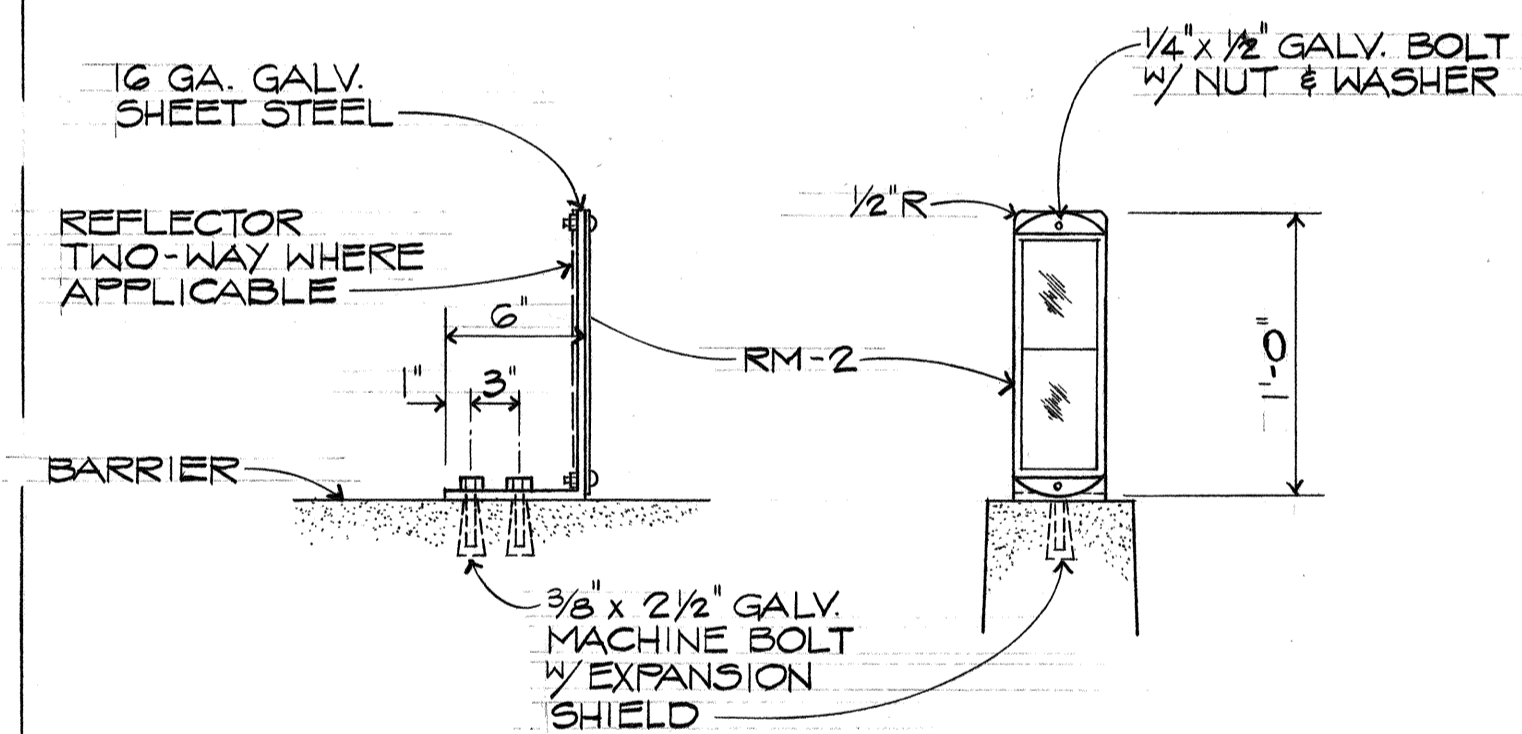
**TYPICAL SECTION**  
 STA. 6+00 TO 10+00  
 Scale: 1/8" = 1'-0"



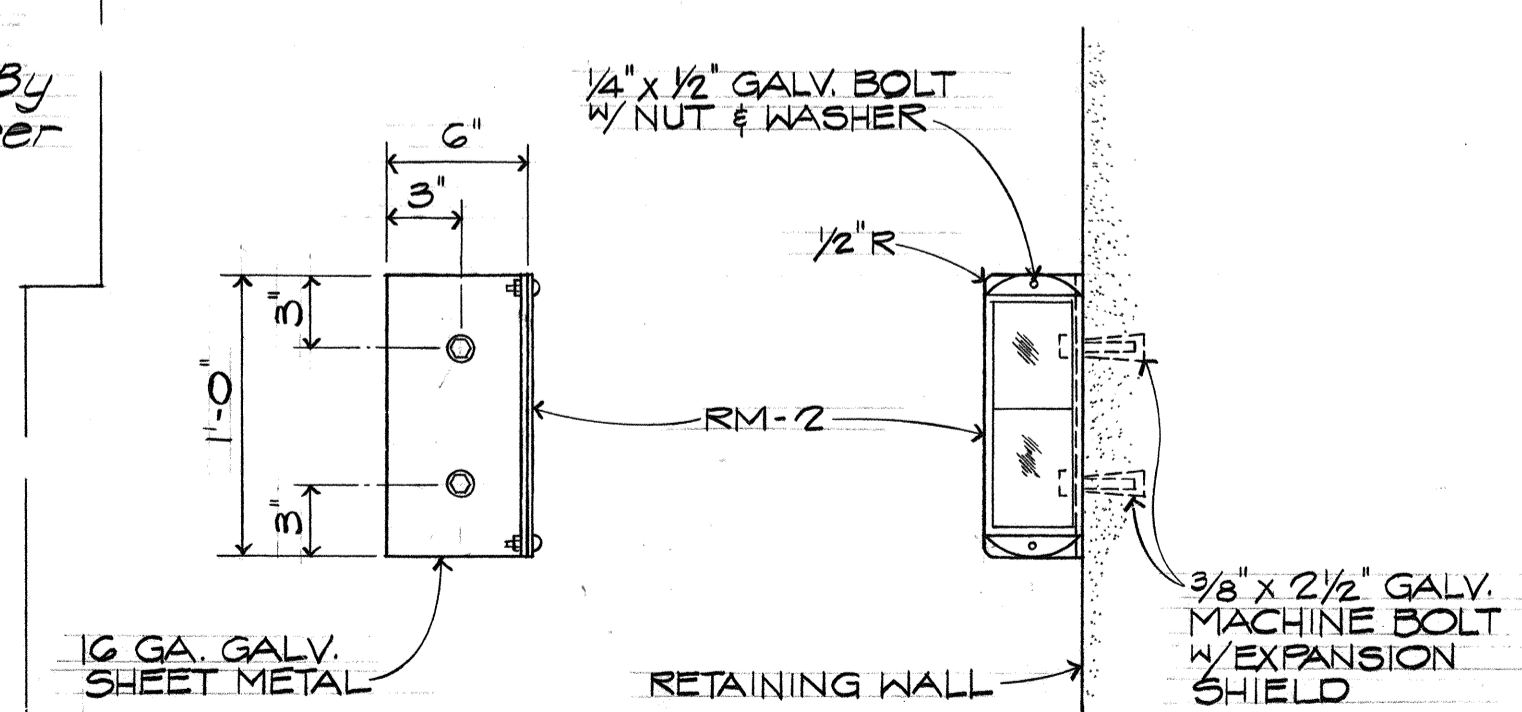
**TYPICAL SECTION - DETOUR ROAD**  
 APPROX. STA. 2+00 TO 6+00  
 STA. 10+00 TO 11+00±  
 Scale: 1/8" = 1'-0"



**SUGGESTED SUPPORT FOR TEMPORARY SIGNS**  
 NOT TO SCALE



**TYPICAL DETAIL**  
 SCALE: 1/2" = 1'-0"  
 BARRIER MOUNTED DELINEATOR

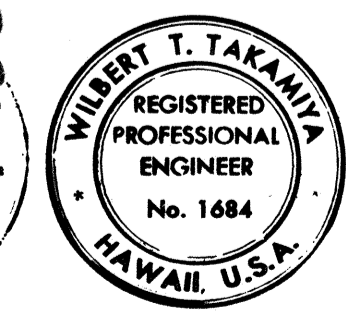
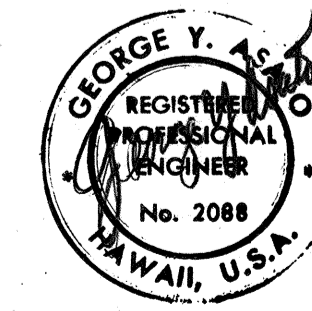


**TYPICAL DETAIL**  
 SCALE: 1/2" = 1'-0"  
 WALL MOUNTED DELINEATOR

SIGNING SUMMARY			
TYPE	DESCRIPTION	QUANTITY	
		W/P	WO/P
R1-2	YIELD	1	
R4-7	KEEP RIGHT	1	
R5-1	DO NOT ENTER	1	
R5-2	WRONG WAY		1
R6-1(L)	ONE WAY	1	
R16-4	NO RIGHT TURN ON RED		1
R16-5	KEEP OUT FREEWAY	3	
W3-3	SIGNAL AHEAD	1	
W4-1(R)	MERGE	1	
W4-2(R)		1	
W13-3(35)	RAMP 35 M.P.H.	1	
TOTAL		11	2

DETOUR SIGNING SUMMARY		QUANTITY BY PHASES								TOTAL QUANTITY	
TYPE	DESCRIPTION	PHASE I		PHASE II		PHASE IV		PHASE V		TOTAL QUANTITY	
		W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P		
R1-2	YIELD										
R11-2	ROAD CLOSED	5		3		5		2		5	
W0-2	DIP					1	1	1	1	1	
W1-3(R)	↗					1				1	
W1-3(L)	↖	2				1				2	
W1-4(L)	↖					1				1	
W1-6	→					1				1	
W4-2(L)						1				1	
W5-1	ROAD NARROWS					1				1	
W13-1(25)	25 M.P.H.	2		1		1				2	
W14-1	DEAD END			1		1				1	
CG20-2	END CONSTRUCTION	2		2		2				2	
CM4-10(R)	DETOUR					1	1	1	1	1	
CM4-10(L)	DETOUR			1		1	2			2	
CW20-1a	ROAD CONSTRUCTION 1500 FT	2		1		1				2	
CW20-1d	ROAD CONSTRUCTION AHEAD	3		2		2				3	
CW20-2b	DETOUR 1000 FT	2		3		3		1		3	
CW20-2c	DETOUR 500 FT	1		1				1		1	
CW20-2d	DETOUR AHEAD	3		3		3		1		3	
TOTAL		15	8	10	3	10	10	4	4	23	11
CONSTRUCTION I.D. SIGN		3		3		3		3		3	
PROJECT INFO SIGN		3		3		3		3		3	
CLASS I	BARRICADE (REFLECTORIZED)	15		30		27		7		30	
CLASS II	BARRICADE (REFLECTORIZED)	37								37	
CONE	TUBULAR (REFLECTORIZED)	33	105	62		20				105	

DATE	REVISION
7/25/75	REVISED SIGNING SUMMARY TO REFLECT TEMPORARY ROUTING AND DETOUR SIGNING SUMMARY TO INCLUDE PHASE V AND CHANGE TO PHASE IV TRAFFIC ROUTING.
4/10/74	REVISED DETOUR ROAD TYPICAL SECTION AND ADDED CONCRETE COVER DETAIL.
11/8/73	REVISED BARRIER QUANTITIES TO REFLECT TRAFFIC DRUM DELETION.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**SIGNING & PAVEMENT MARKING  
 MISCELLANEOUS DETAILS**

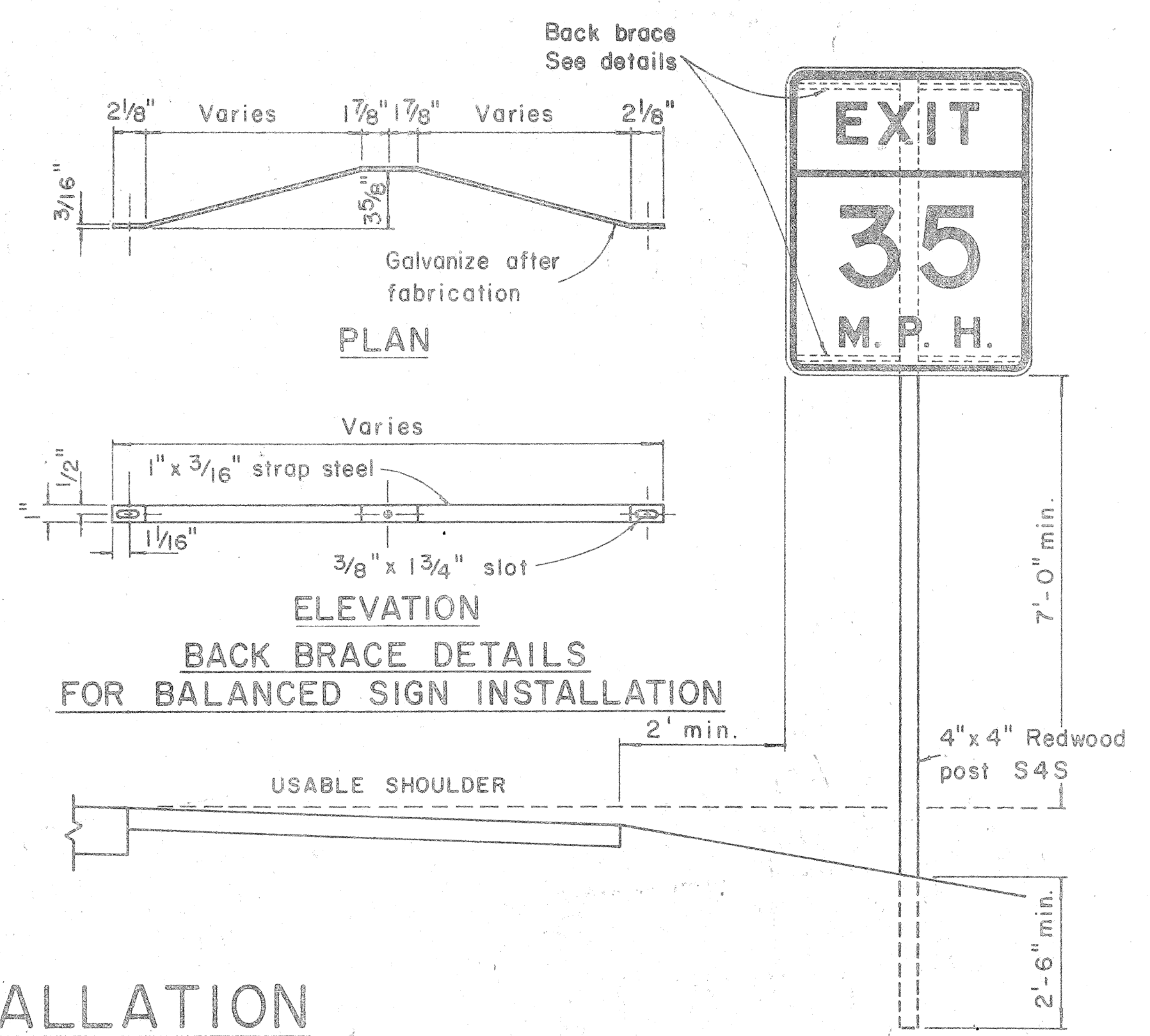
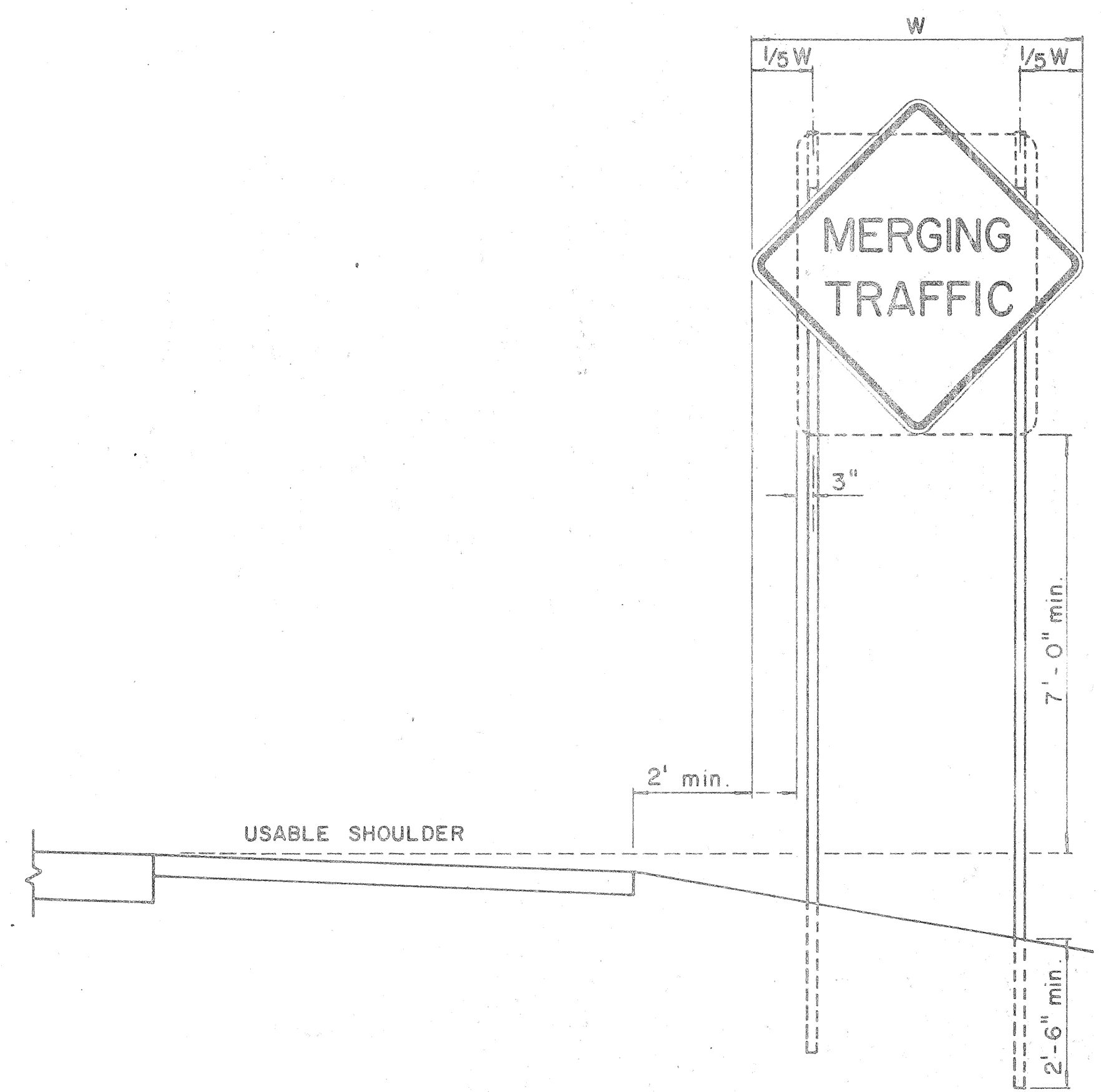
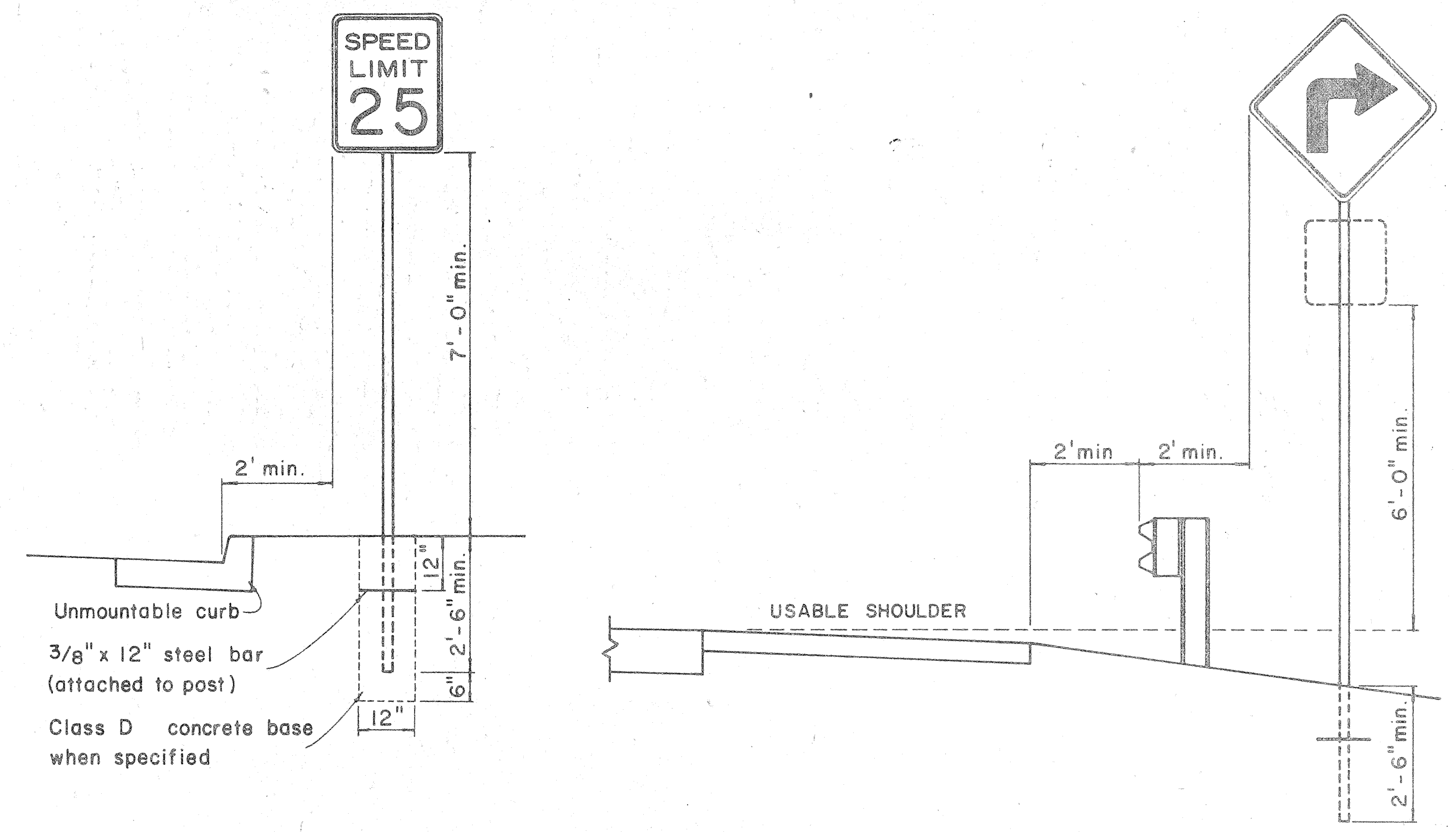
PEARL HARBOR INTERCHANGE  
 F.A.I. PROJ. NO. I-HI-1(10)15

SCALE: AS SHOWN DATE: \_\_\_\_\_

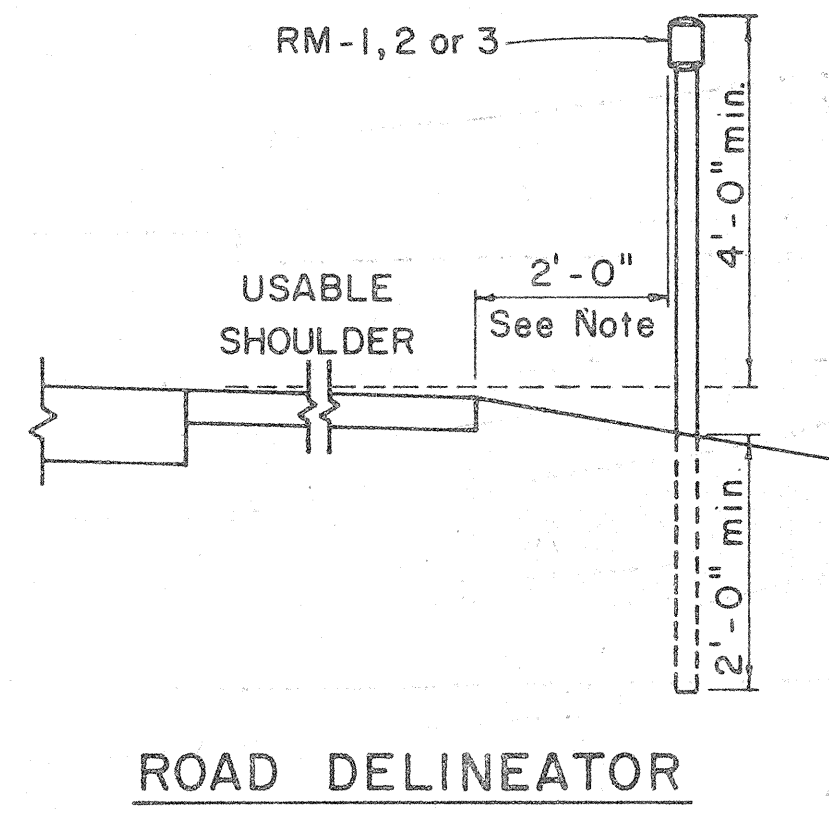
**SHEET NO. 5 OF 19 SHEETS**

DATE: \_\_\_\_\_  
 SURVEY PLOTTED BY: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 TRACED BY: \_\_\_\_\_  
 DESIGNED BY: \_\_\_\_\_  
 QUANTITIES BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 ORIGINAL PLAN NO. \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_

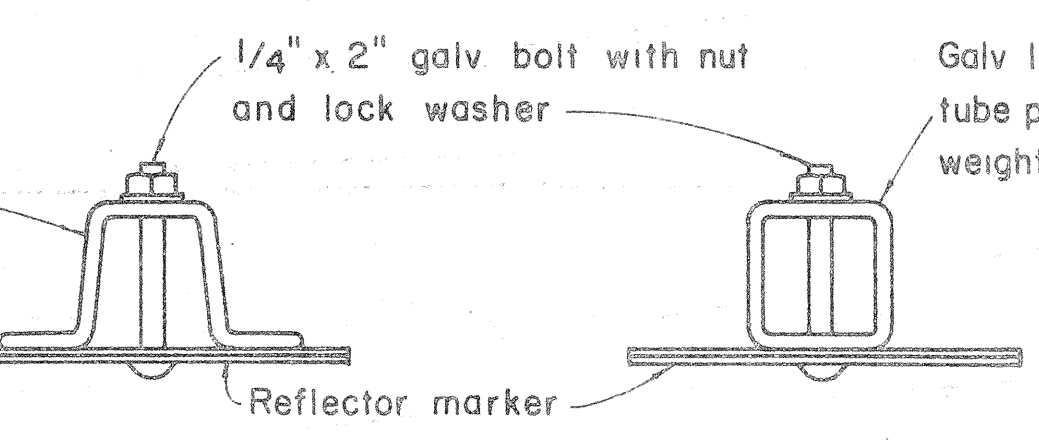
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-(10)-15	1973	79	220



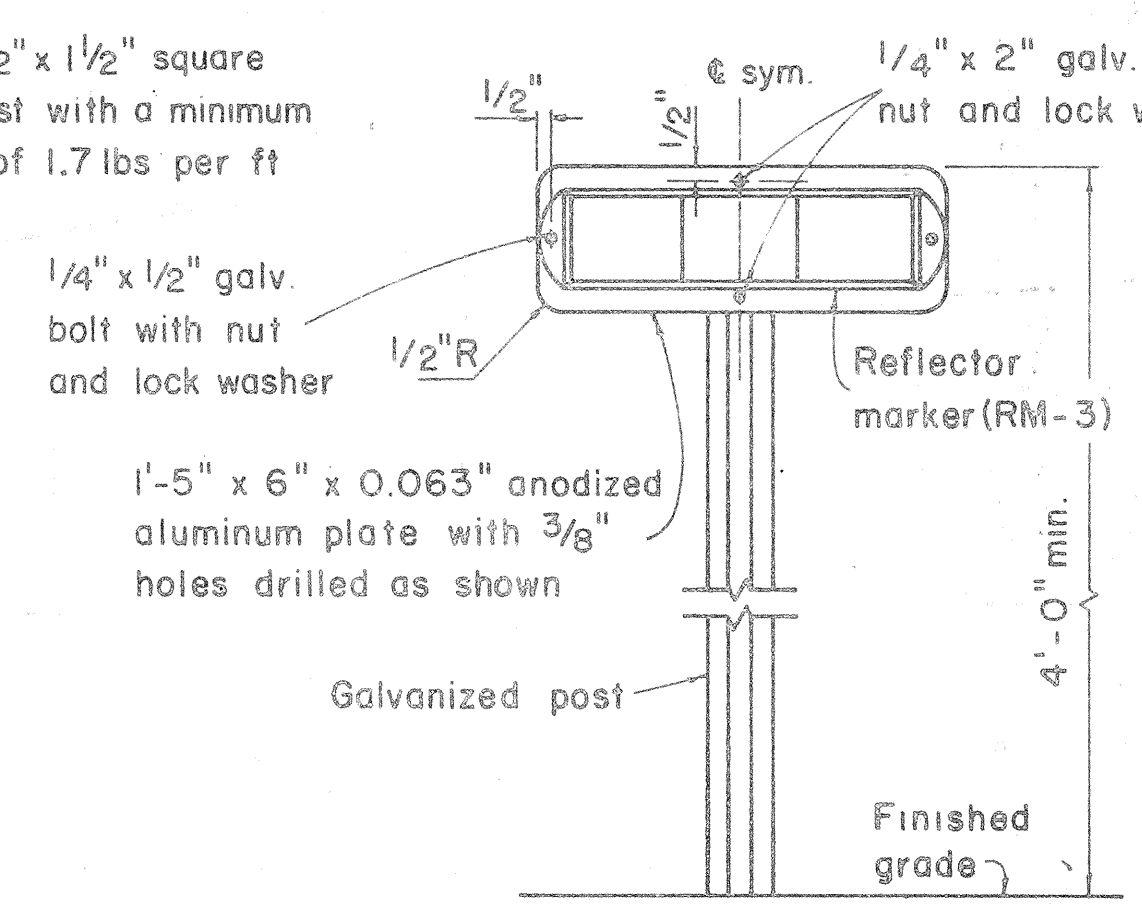
## HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATION



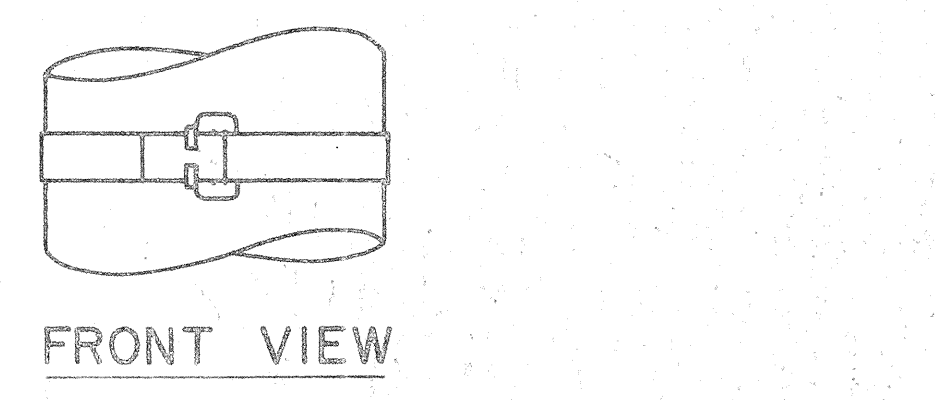
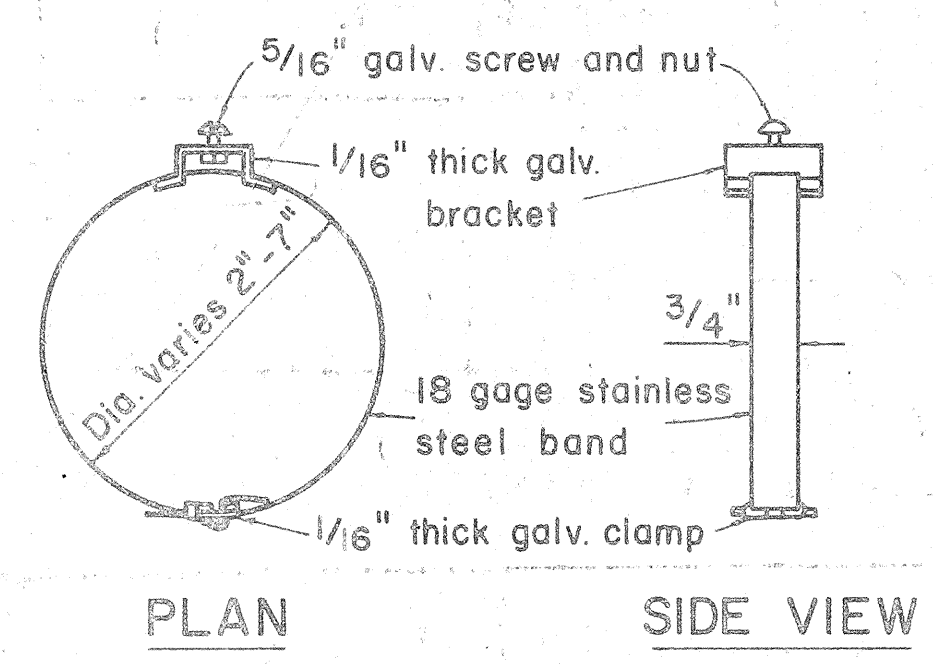
Galv. flanged channel 1/8" x 3/16" rolled section post with a minimum weight of 2 lbs. per ft. Upper 2 ft. shall have a single row of 3/8" holes centered in the web at 1" o.c.



TYPICAL SECTION OF ROAD DELINEATOR



TYPICAL DETAIL  
HORIZONTAL REFLECTOR MARKER  
RM-3H



TYPICAL BAND BRACKET FOR  
MOUNTING TRAFFIC SIGNS

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

APPROVAL RECOMMENDED:  
*Eiichi Tanaka* 12/29/69  
 TRAFFIC ENGINEER DATE

APPROVED:  
*Arthur S. S. S.* 12-30-69  
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

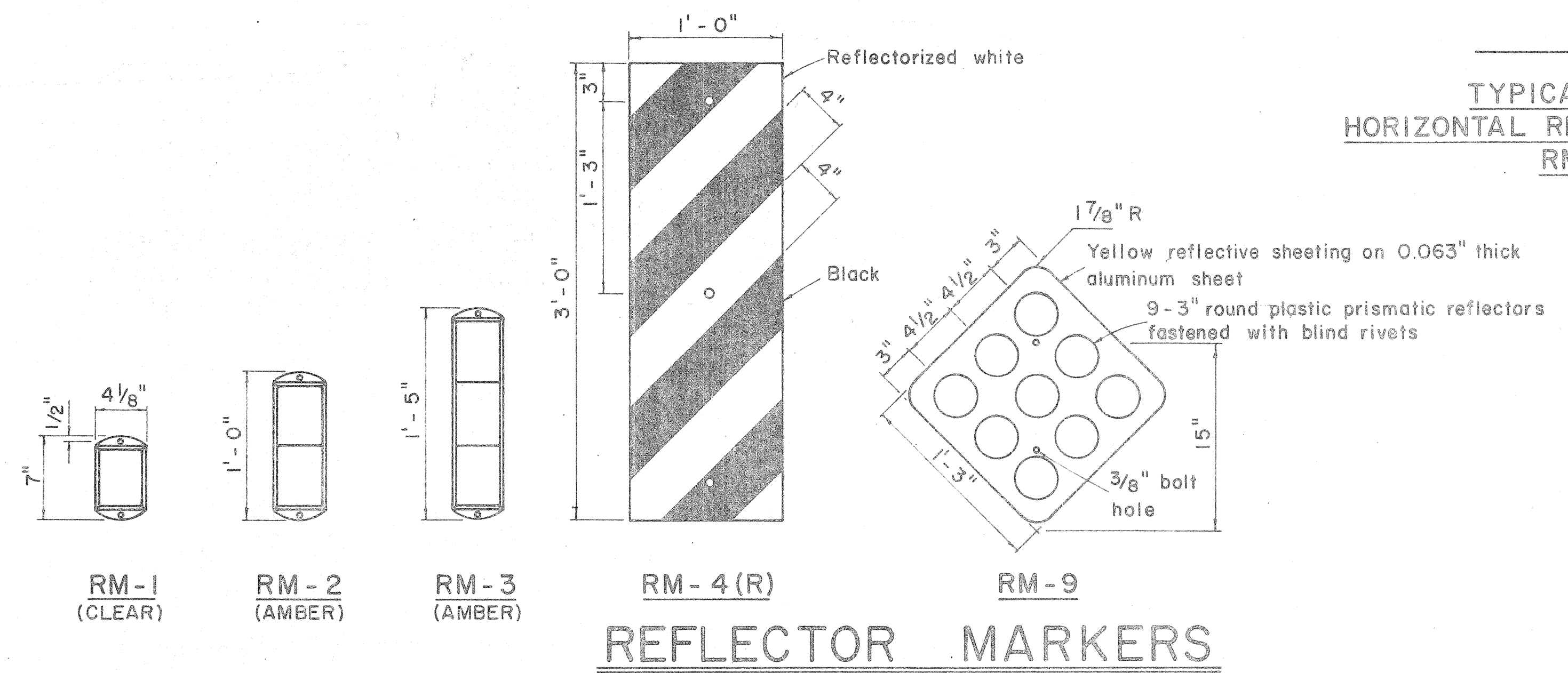
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STANDARD DETAILS**  
MISCELLANEOUS SIGN DETAILS

Not to scale March, 1968

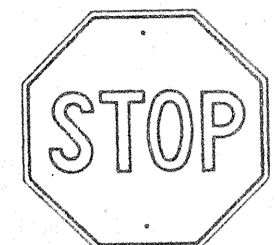
SHEET No. 6 OF 13 SHEETS DT 100

ORIGINAL PLAN  
 SURVEY PLOTTED BY  
 DRAWN BY  
 CHECKED BY  
 DATE

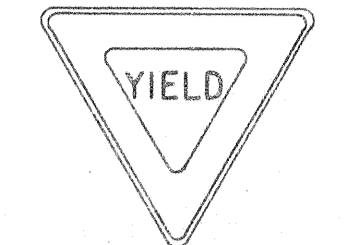


REFLECTOR MARKERS

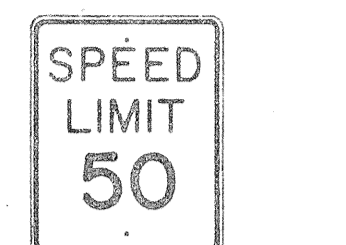
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-11(10)15	1973	80	220



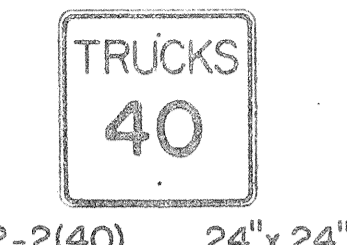
R1-1 30" x 30"  
R1-1-A 36" x 36"  
4-WAY  
R1-3 12" x 6"  
R1-3-A 18" x 9"



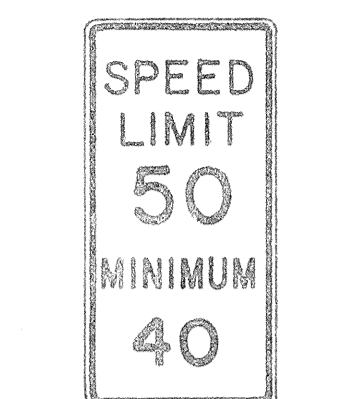
R1-2 36" x 36" x 36"  
R1-2-A 48" x 48" x 48"



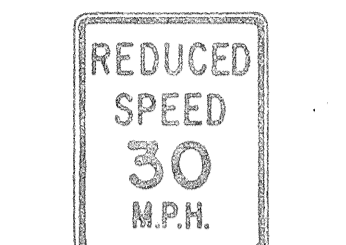
R2-1(50) 24" x 30"  
R2-1(50)-A 48" x 60"



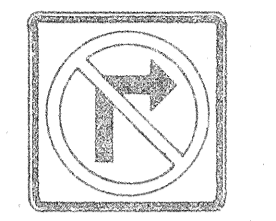
R2-2(40) 24" x 24"  
R2-2(40)-A 48" x 48"



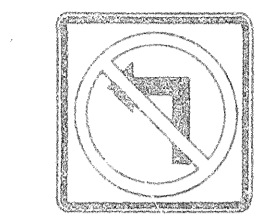
R2-4a(50/40) 24" x 48"  
R2-4a(50/40)-A 48" x 96"



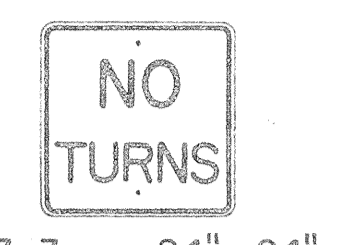
R2-5b(30) 24" x 30"  
R2-5b(30)-A 48" x 60"



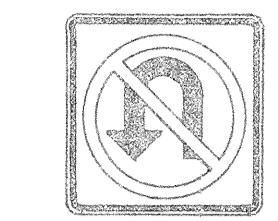
R3-1 24" x 24"  
24" x 18"  
R3-1-A 48" x 48"  
48" x 36"




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



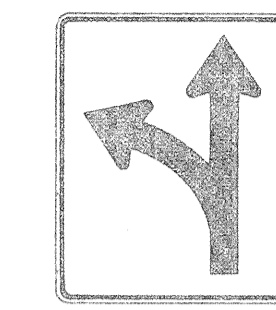
R3-3 24" x 24"  
R3-3-A 48" x 48"




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



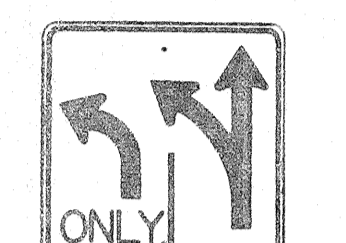
R3-5(L) 30" x 36"  
R3-5(L)-A 48" x 60"



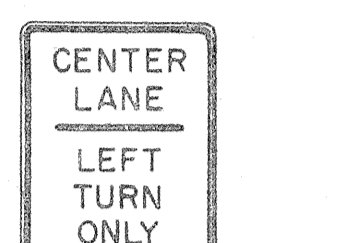
R3-6(L) 30" x 36"  
R3-6(L)-A 48" x 60"




R3-7(R) 30" x 30"  
R3-7(R)-A 48" x 48"




R3-8(L) 30" x 30"  
R3-8(L)-A 36" x 36"  
R3-8(L)-B 48" x 48"



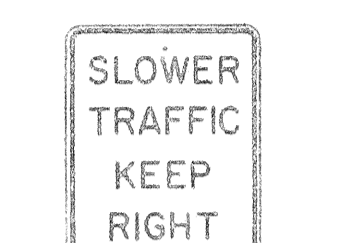
R3-9 24" x 30"



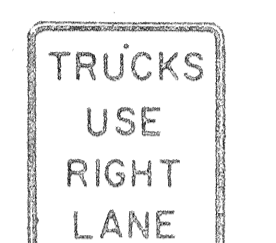
R4-1 24" x 30"



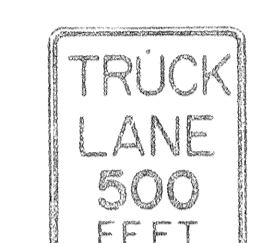
R4-2 24" x 30"



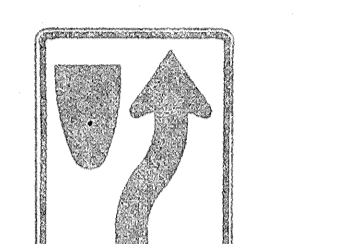
R4-3 24" x 30"  
R4-3-A 48" x 60"



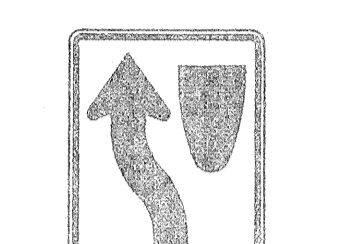
R4-5 24" x 30"



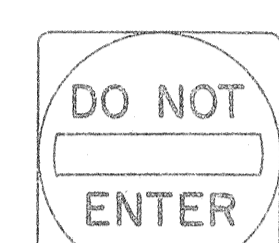
R4-6(500) 24" x 30"



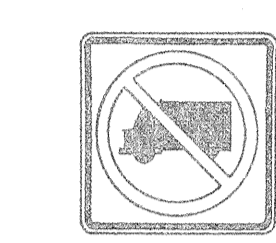
R4-7 24" x 30"  
24" x 18"



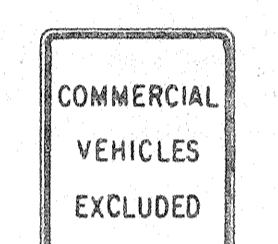
R4-8 24" x 30"  
24" x 18"



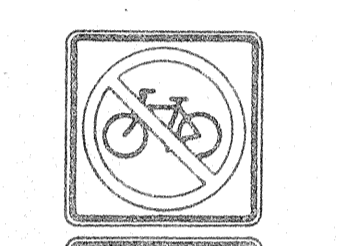
R5-1 30" x 30"  
R5-1-A 48" x 48"




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



R5-4 24" x 30"




R5-6 24" x 24"  
24" x 18"




R5-9 36" x 24"



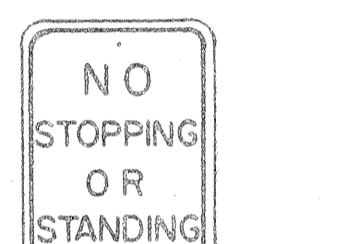
R6-1(R) 36" x 12"




R6-2(R) 18" x 24"



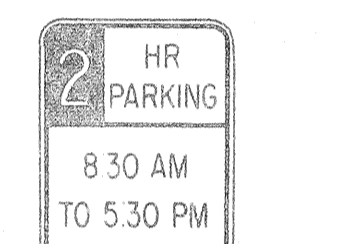
R7-1 12" x 18"  
R7-1-A 24" x 30"



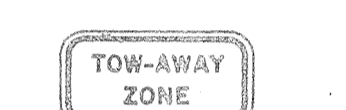
R7-4 12" x 18"  
R7-4-A 24" x 30"




R7-107(R) 12" x 18"




R7-108 12" x 18"




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




R8-1 24" x 30"




R8-2 24" x 30"



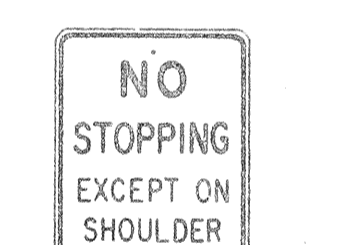
R8-3 24" x 30"




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




R8-5 24" x 30"




R8-6 24" x 30"




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



R9-1 18" x 24"



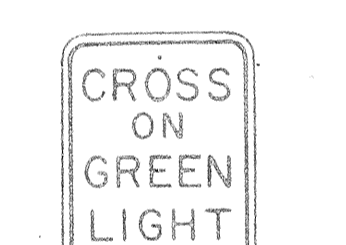
R9-2 12" x 18"




R9-3 12" x 18"



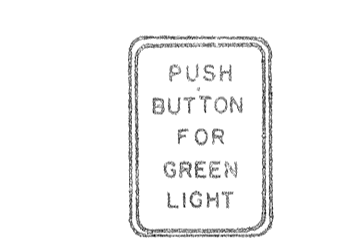
R9-4 18" x 24"



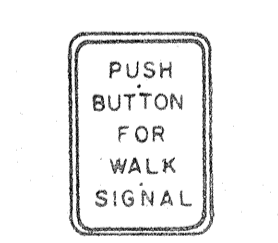
R10-1 12" x 18"




R10-2 12" x 18"




R10-3 9" x 12"



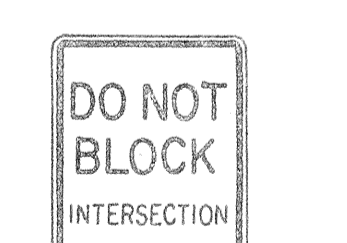
R10-4 9" x 12"




R10-5 24" x 30"




R10-6 24" x 36"



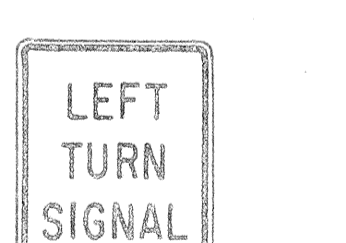
R10-7 24" x 30"



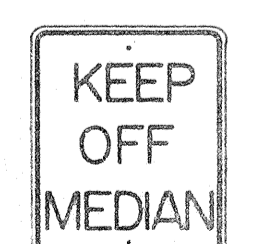
R10-8 24" x 30"



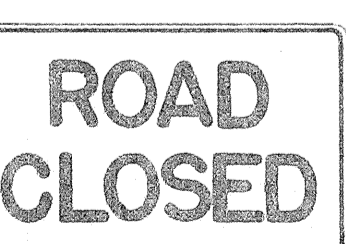
R10-9 24" x 30"



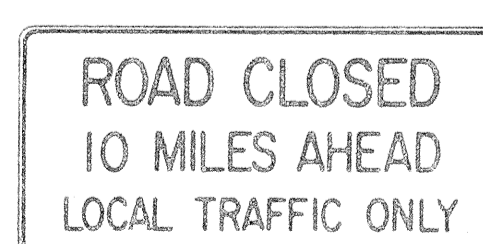
R10-10 24" x 30"



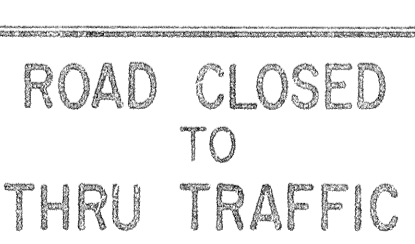
R11-1 24" x 30"




R11-2 48" x 30"



R11-3(10) 60" x 30"



R11-4 60" x 30"



R12-1(10) 24" x 30"

**GENERAL NOTES**

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

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

APPROVED:  
*Julius Roberts*  
ASSISTANT CHIEF, ENGINEERING 3-20-72  
DATE

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

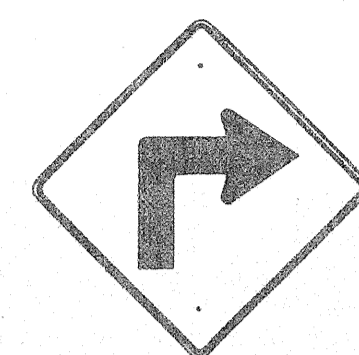
**STANDARD DETAILS  
REGULATORY SIGNS**

NOT TO SCALE

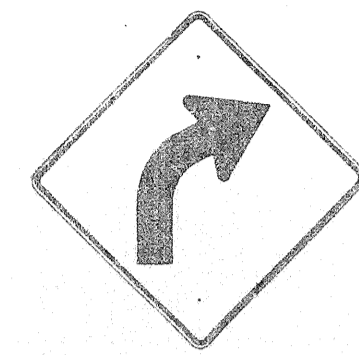
SHEET No. 7 OF 12 SHEETS DT 101

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

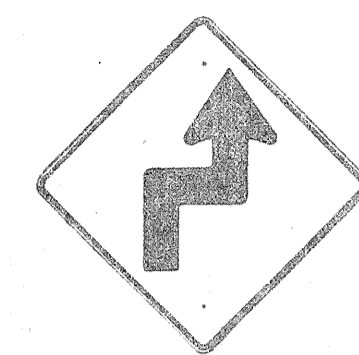
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-11-1(10)115	1973	81	220



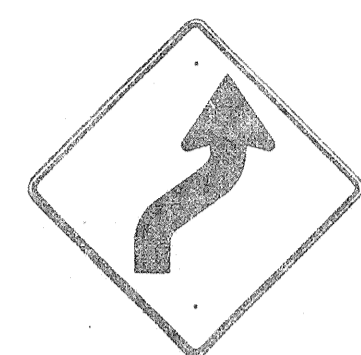
W1-1(R) 30"x30"  
W1-1(R)-A 48"x48"



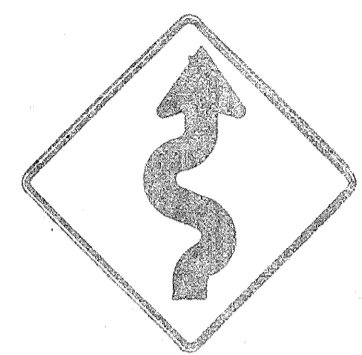
W1-2(R) 30"x30"  
W1-2(R)-A 48"x48"



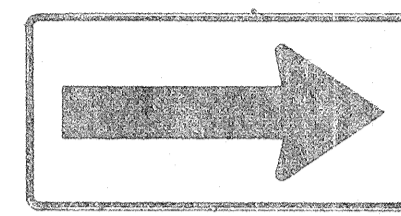
W1-3(R) 30"x30"  
W1-3(R)-A 48"x48"



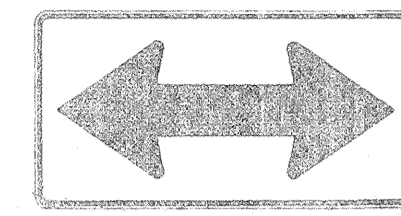
W1-4(R) 30"x30"  
W1-4(R)-A 48"x48"



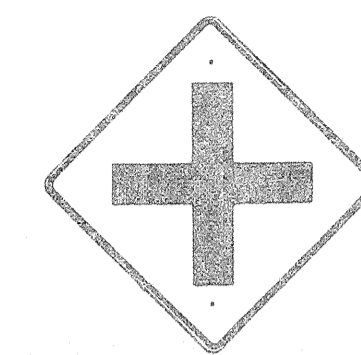
W1-5(R) 30"x30"  
W1-5(R)-A 48"x48"



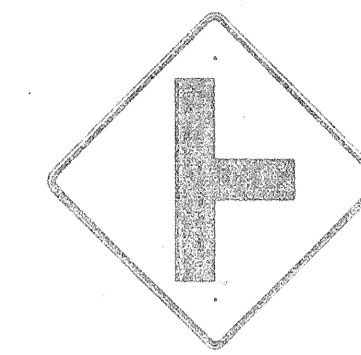
W1-6 48"x24"



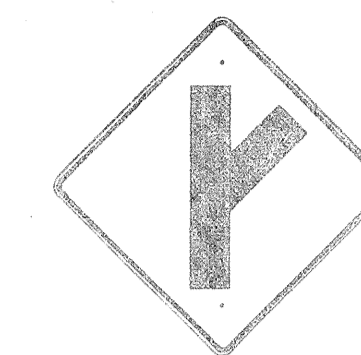
W1-7 48"x24"



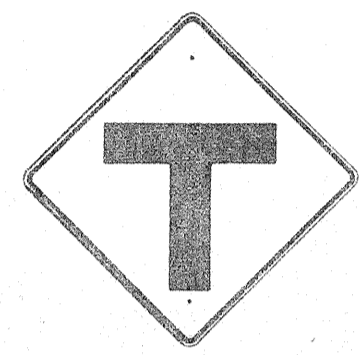
W2-1 30"x30"  
W2-1-A 48"x48"



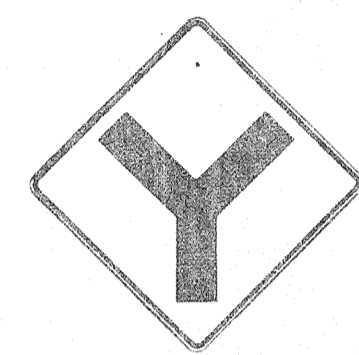
W2-2 30"x30"  
W2-2-A 48"x48"



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



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



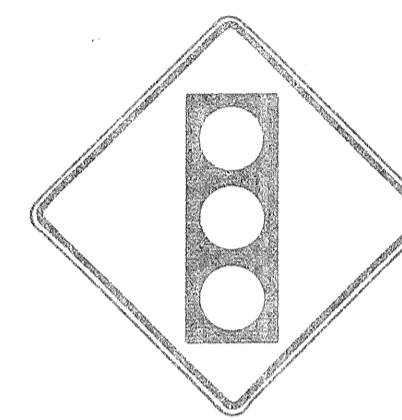
W2-5 30"x30"  
W2-5-A 48"x48"



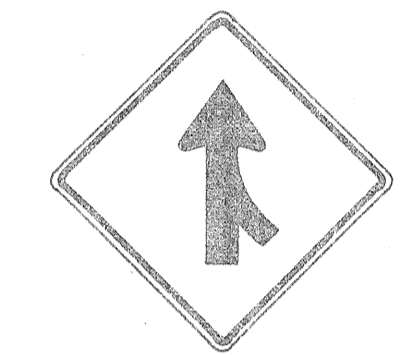
W3-1 30"x30"  
W3-1-A 36"x36"



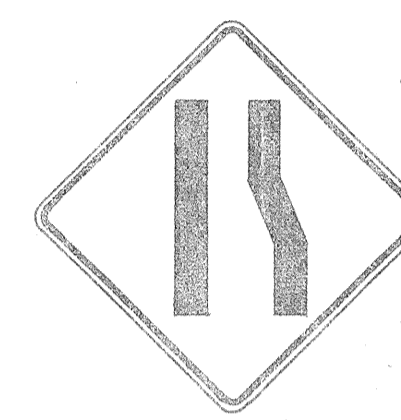
W3-2 30"x30"  
W3-2-A 36"x36"



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"



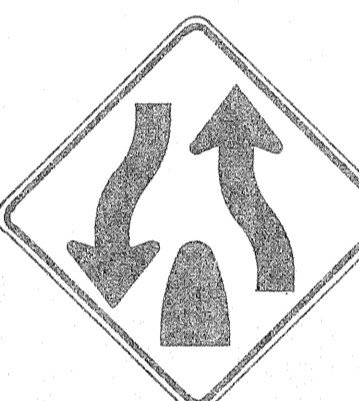
W5-2 30"x30"  
W5-2-A 36"x36"



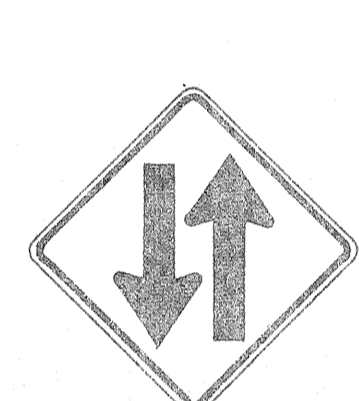
W5-3 36"x36"



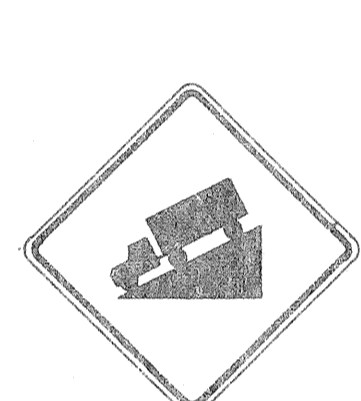
W6-1 36"x36"  
24"x18"



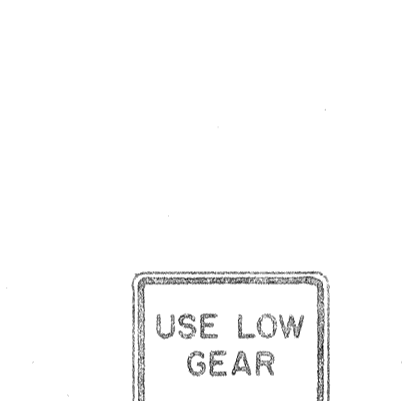
W6-2 36"x36"  
24"x18"



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"



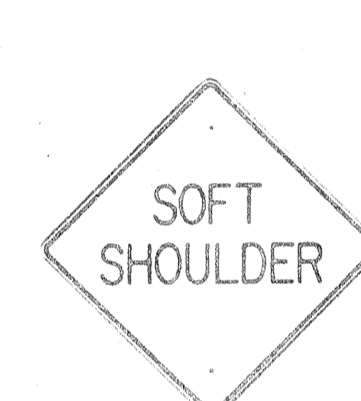
W8-1 30"x30"  
W8-1-A 36"x36"



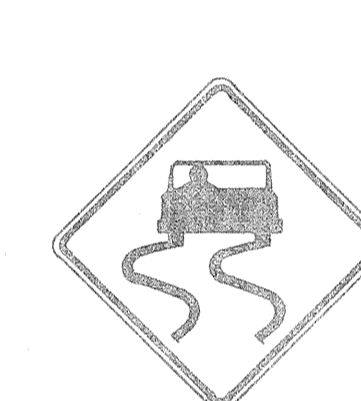
W8-2 30"x30"  
W8-2-A 36"x36"



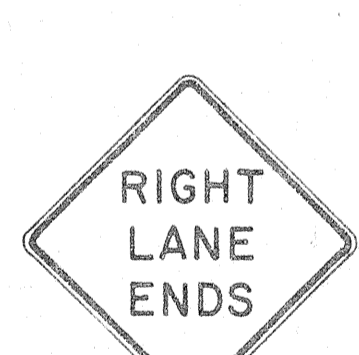
W8-3 30"x30"  
W8-3-A 36"x36"



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



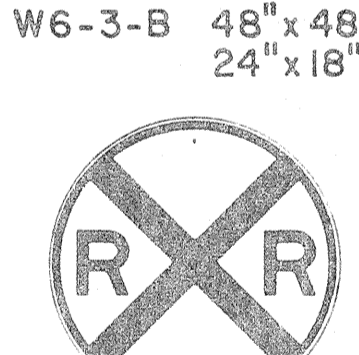
W8-5 30"x30"  
24"x18"  
W8-5-A 36"x36"  
24"x18"



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



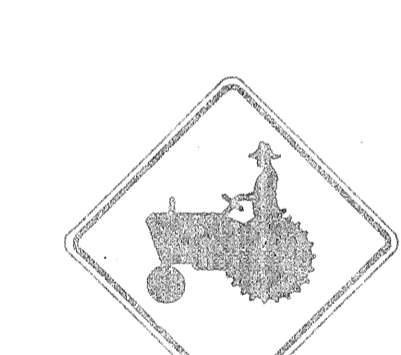
W11-1 30"x30"  
24"x18"  
W11-1-A 36"x36"  
24"x18"



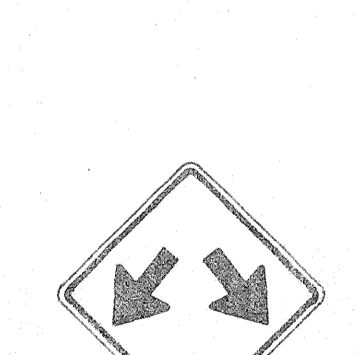
W11-2 30"x30"  
24"x18"  
W11-2-A 36"x36"  
24"x18"



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



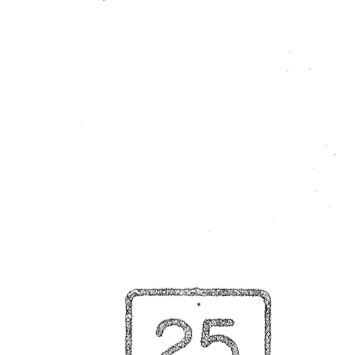
W11-5 30"x30"  
24"x18"  
W11-5-A 36"x36"  
24"x18"



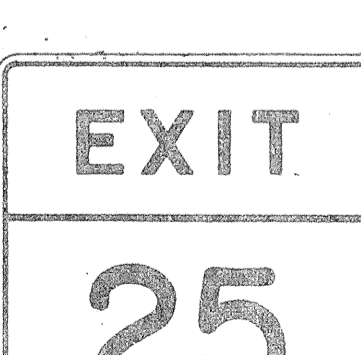
W12-1 24"x24"  
W12-1-A 36"x36"  
W12-1-B 48"x48"



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



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



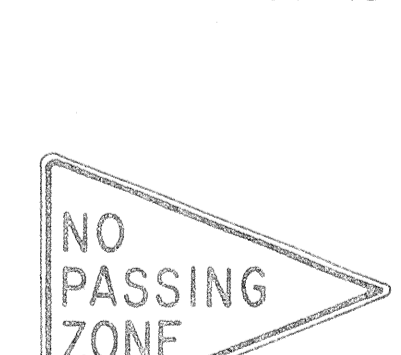
W13-2(25) 48"x60"



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."
- 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.

APPROVAL RECOMMENDED:  
*Eisaku Tanaka* 3/13/72  
TRAFFIC ENGINEER DATE

APPROVED:  
*Walter Rabin* 3-20-72  
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 102 Approved 12-30-69	H.T.	3/20/72

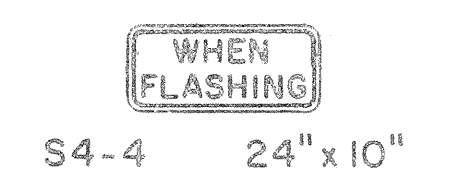
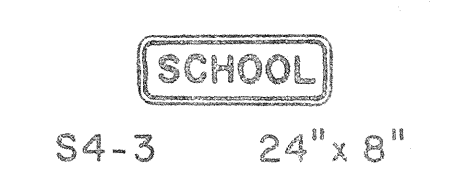
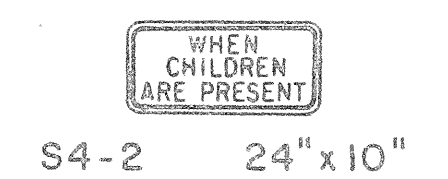
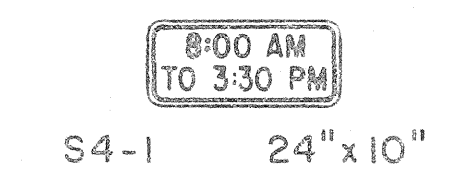
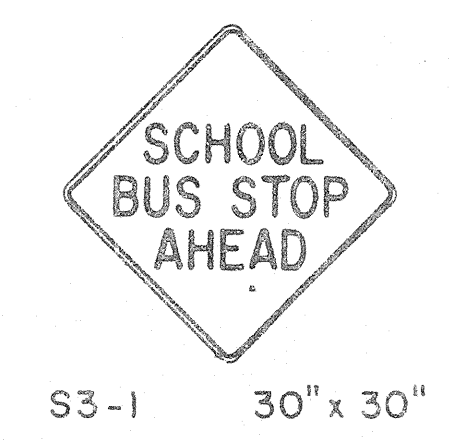
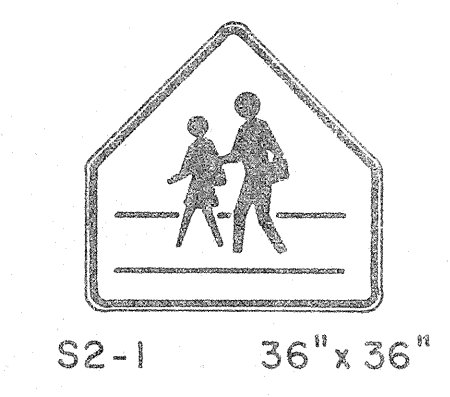
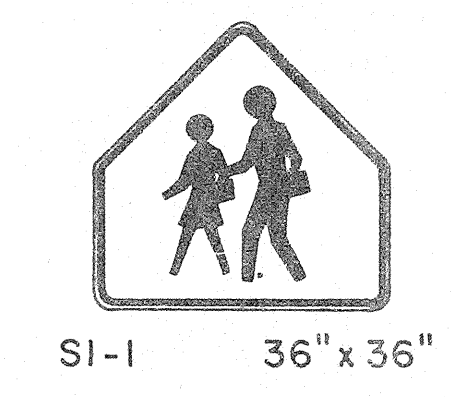
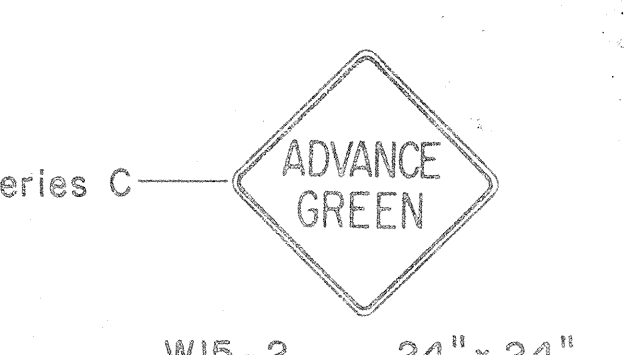
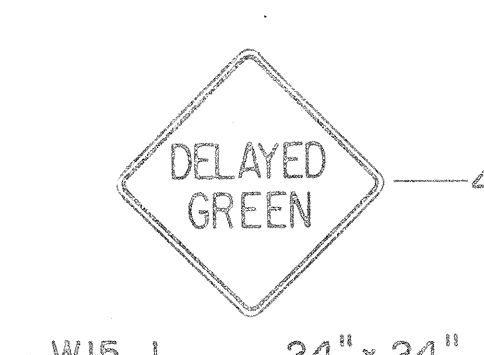
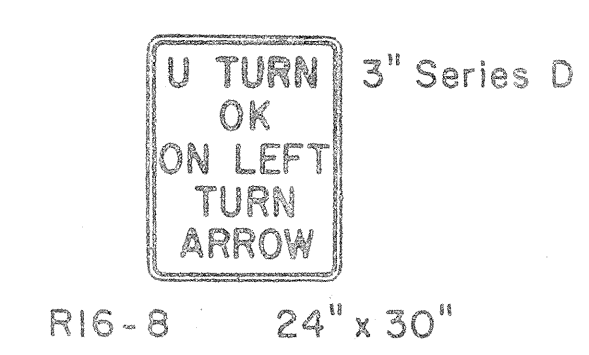
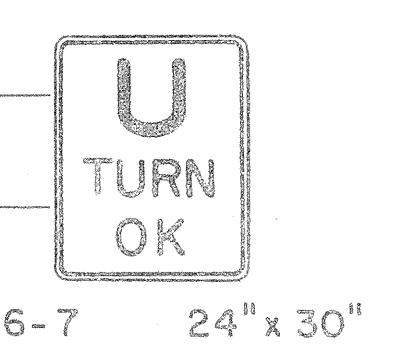
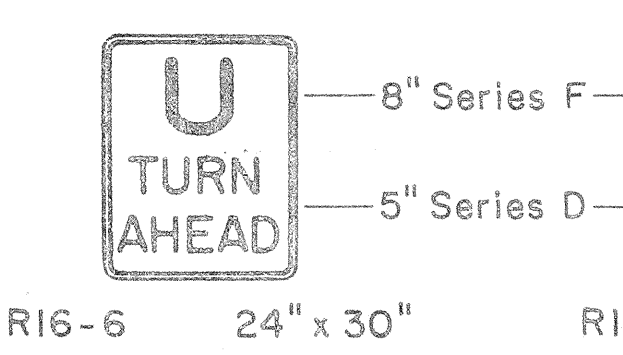
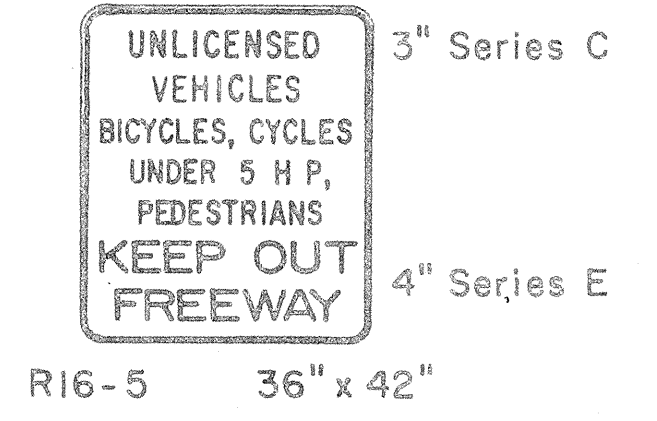
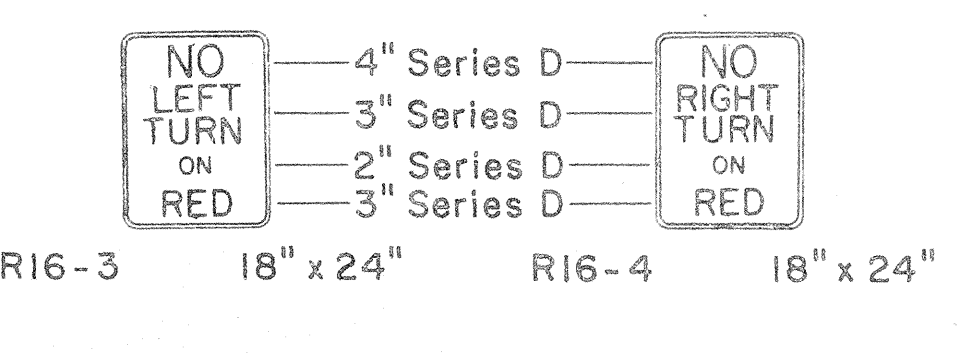
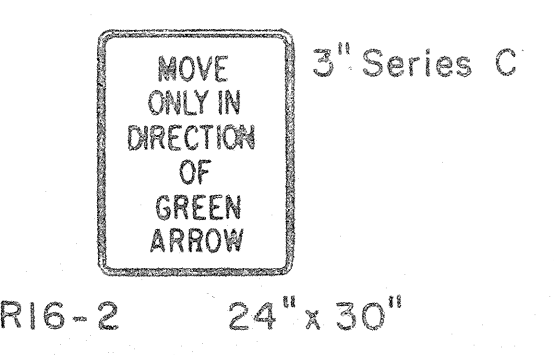
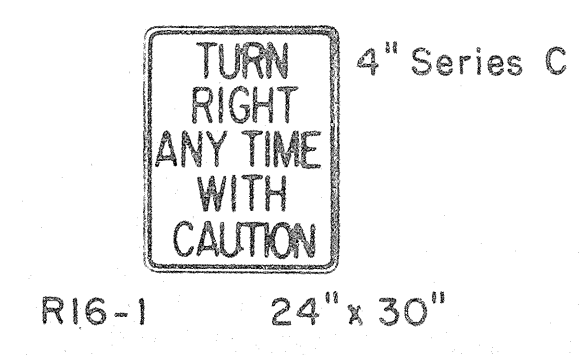
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

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

NOT TO SCALE

DATE: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
PLANNED BY: \_\_\_\_\_  
NOTED BY: \_\_\_\_\_  
ORIGINAL PLAN: \_\_\_\_\_  
NOTE BOOK: \_\_\_\_\_

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-10015	1973	82	220



**GENERAL NOTES**

1. Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs."
2. All regulatory and warning signs shall be reflectorized unless otherwise specified.
3. All regulatory and warning signs shall have 3/8" bolt holes drilled at appropriate locations.
4. Numerals in ( ) indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.

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

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

APPROVED:  
*Shigeru Zatsich* 2-20-72  
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 103 Approved 12-30-69	H.T.	3/20/72

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**STANDARD DETAILS**  
**MISCELLANEOUS**  
**REGULATORY & WARNING SIGNS**

NOT TO SCALE  
 SHEET No. 82 OF 10 SHEETS DT 103

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	111(10)15	1973	03	220



CW20-1a 48"x48"



CW20-2d 48"x48"



CW20-3b 48"x48"



CW20-4d 48"x48"



CW20-5d(L) 48"x48"



CW20-7c 48"x48"



CW21-1 30"x30"



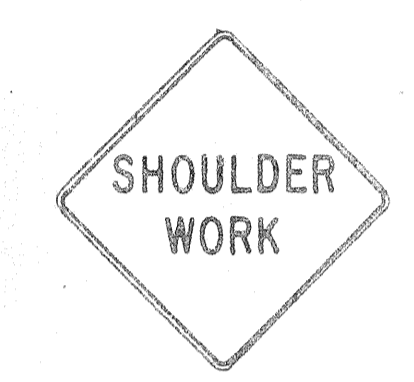
CW21-2 30"x30"



CW21-3 36"x36"



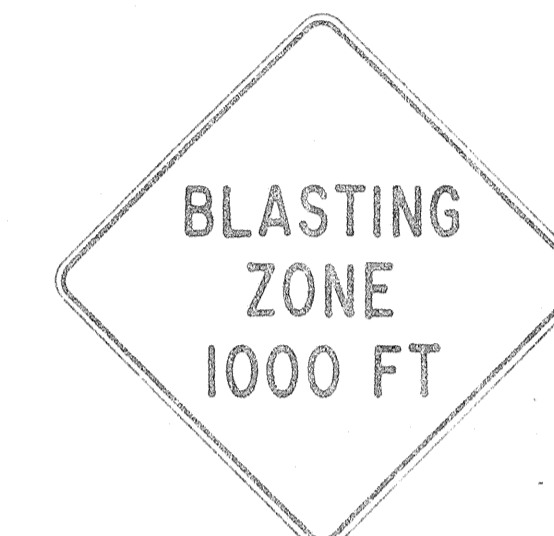
CW21-4 36"x36"



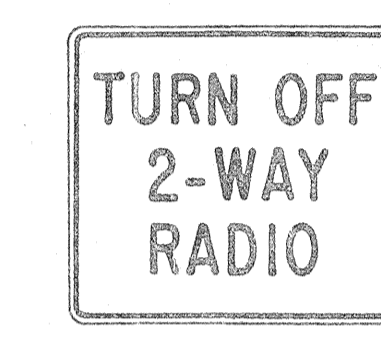
CW21-5 30"x30"



CW21-6 30"x30"



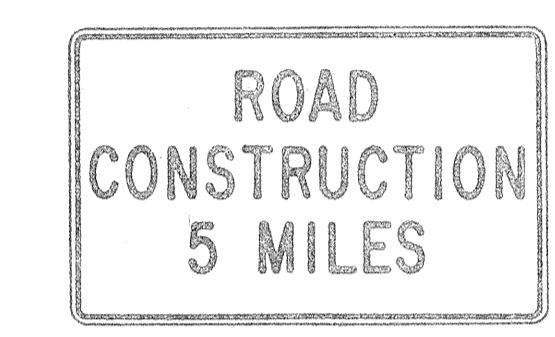
CW22-1b 48"x48"



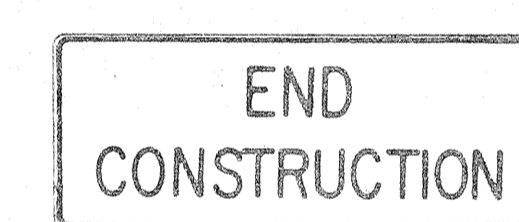
CW22-2 42"x36"



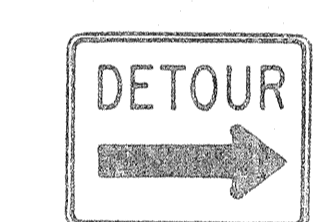
CW22-3 42"x36"



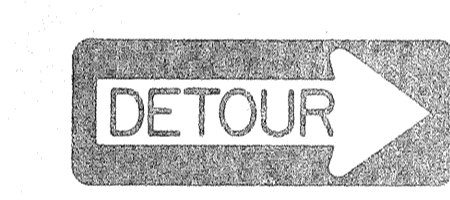
CG20-1(5) 60"x36"



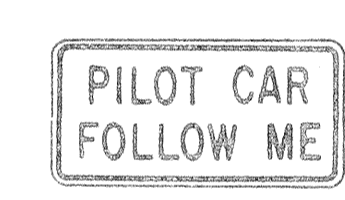
CG20-2 60"x24"



CM4-9(R) 30"x24"



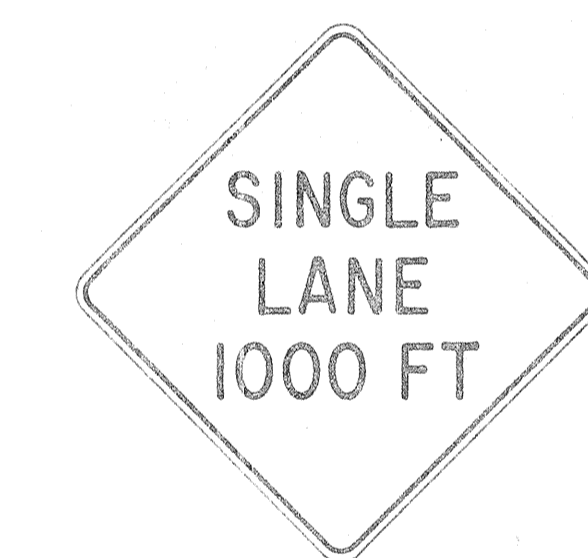
CM4-10(R) 48"x18"



CG20-4 36"x18"



CW23-1 36"x36"



CW23-2b 48"x48"



CW23-3(R) 48"x48"

**GENERAL NOTES**

1. Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs."
2. All construction signs shall be reflectorized unless otherwise specified.
3. All construction signs shall have 3/8" bolt holes drilled at appropriate locations.
4. Numerals in ( ) indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
5. 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* 3/21/72  
 TRAFFIC ENGINEER DATE

APPROVED:  
*Harold Salsich* 3/23/72  
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	HT	3/25/72

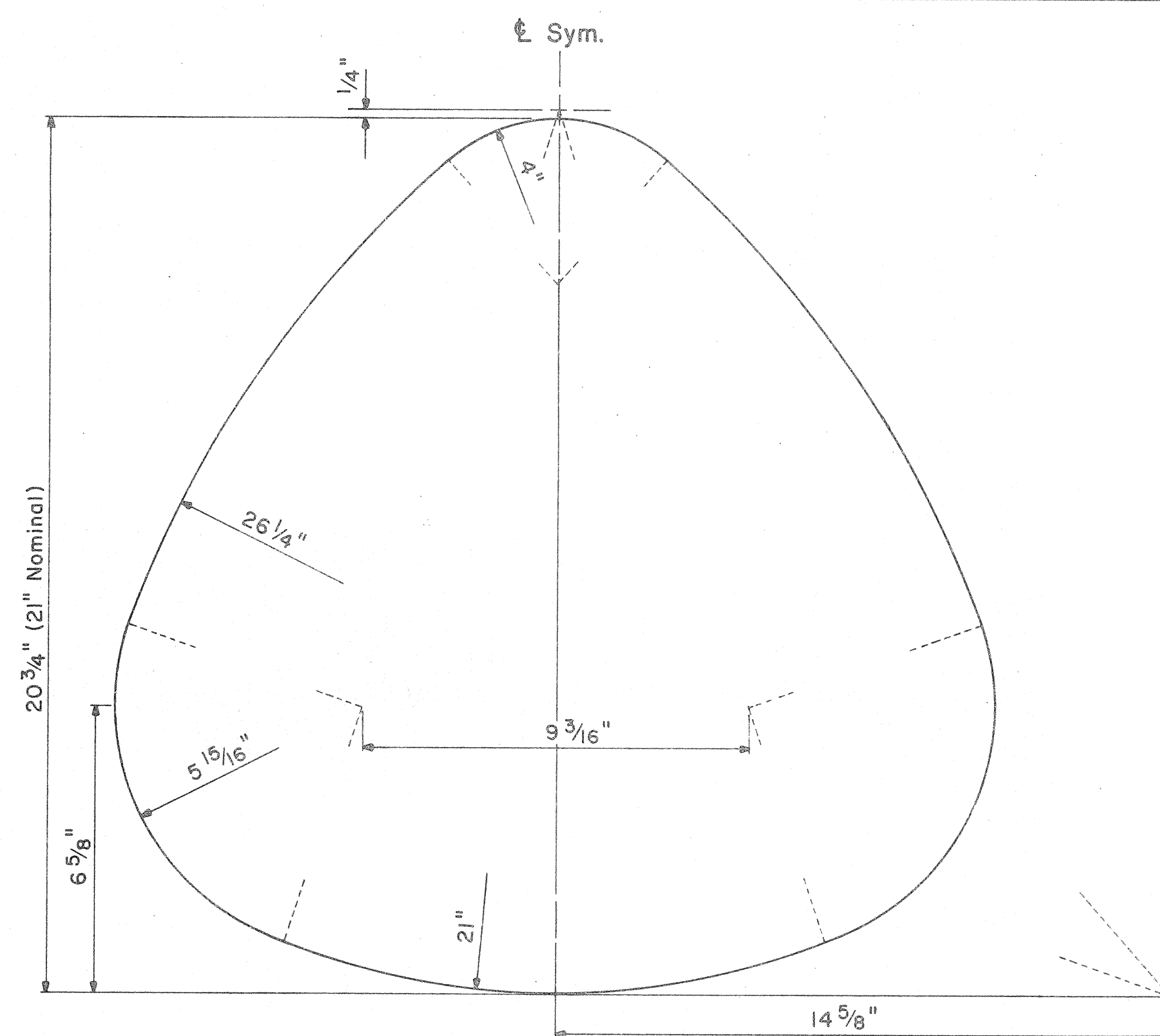
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

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

NOT TO SCALE

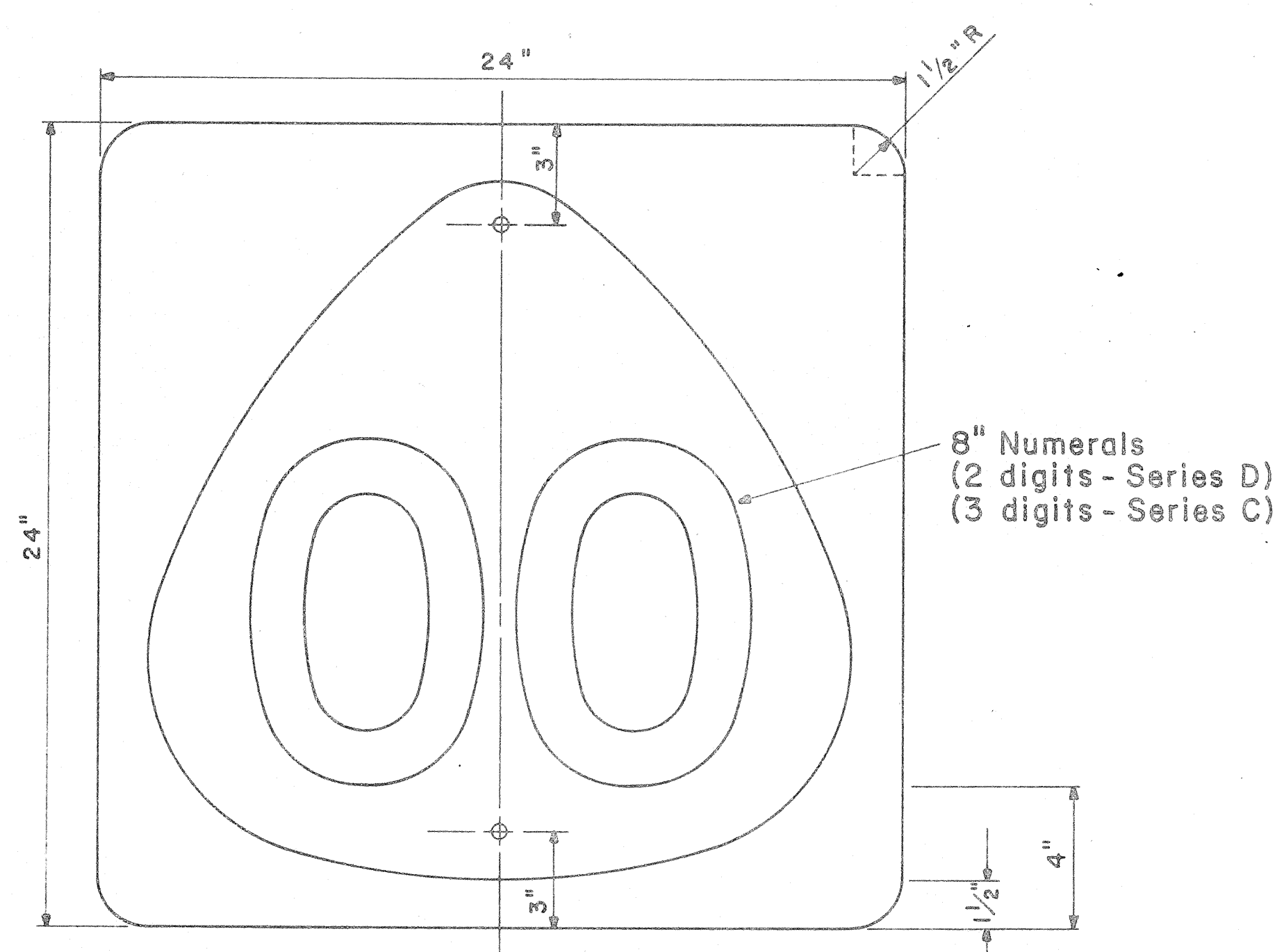
DESIGNED BY	DATE
CHECKED BY	
APPROVED BY	
DATE	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	141-10-15	1973	04	220



**STATE ROUTE MARKER DETAIL**

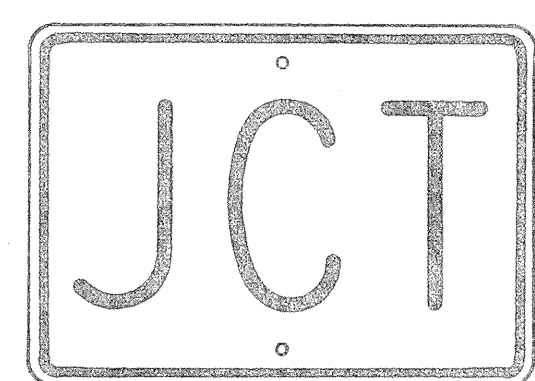
Not to Scale



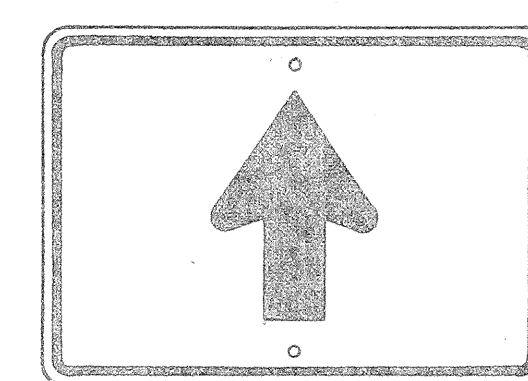
**STATE ROUTE MARKER**

M1-6 (00) 24" x 24"

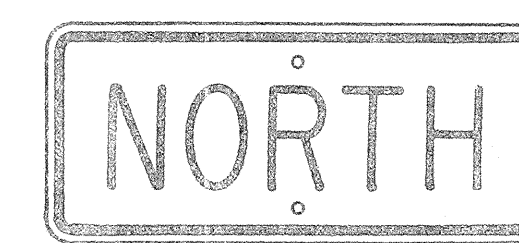
Scale: 1/4" = 1"



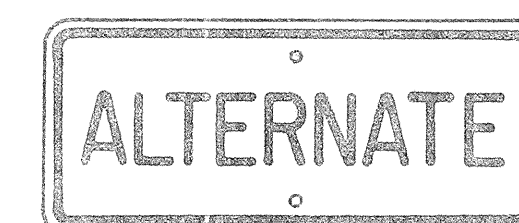
M2-1 21" x 15"



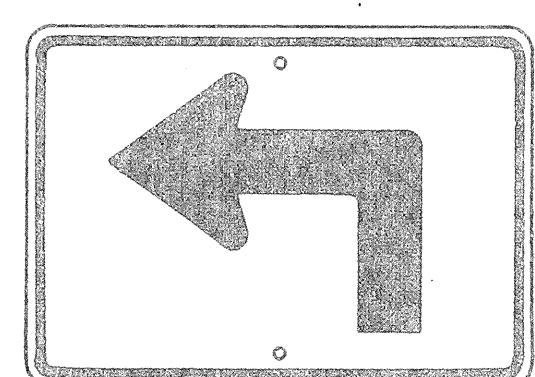
M6-3 21" x 15"



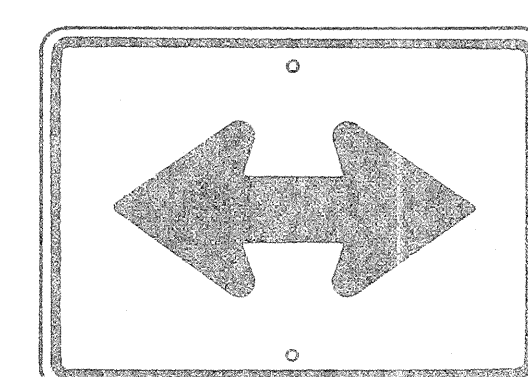
M3-1 24" x 12"  
M3-1-A 36" x 18"



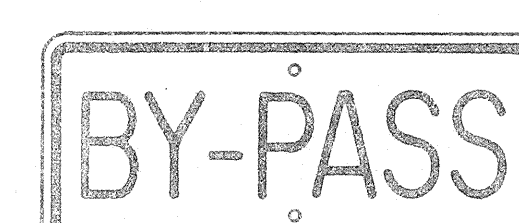
M4-1 24" x 12"



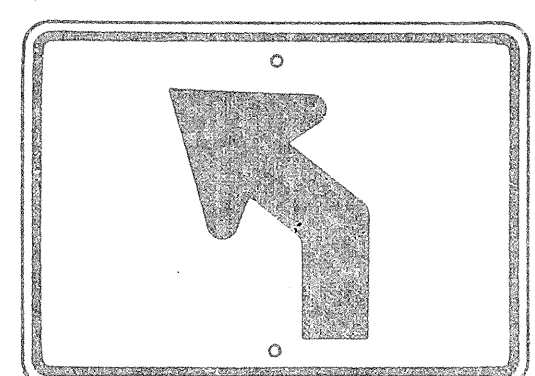
M5-1(L) 21" x 15"



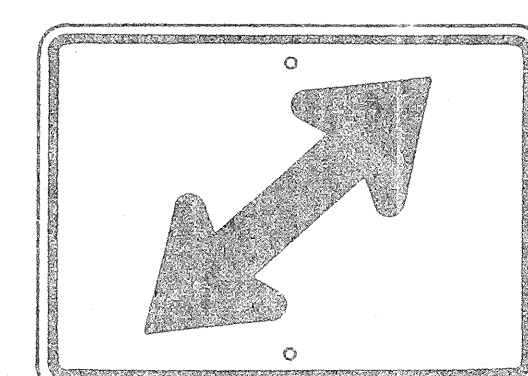
M6-4 21" x 15"



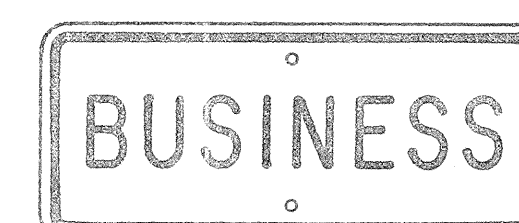
M4-2 24" x 12"



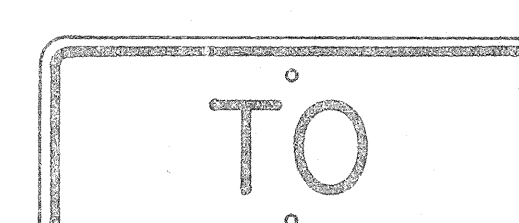
M5-2(L) 21" x 15"



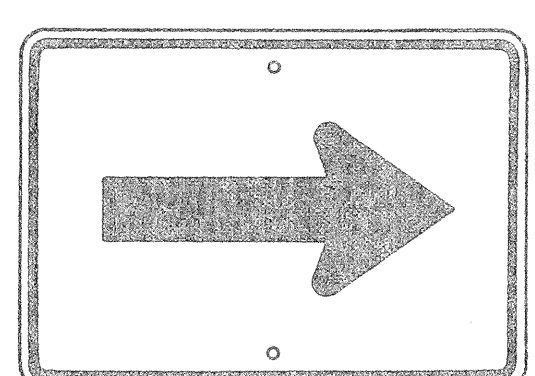
M6-5(R) 21" x 15"



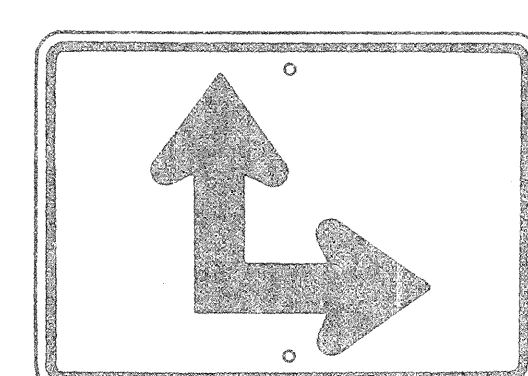
M4-3 24" x 12"



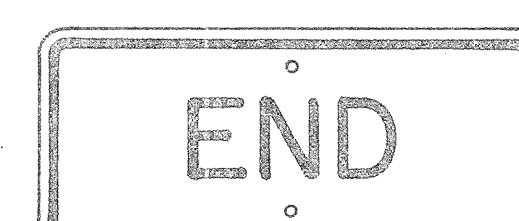
M4-5 24" x 12"



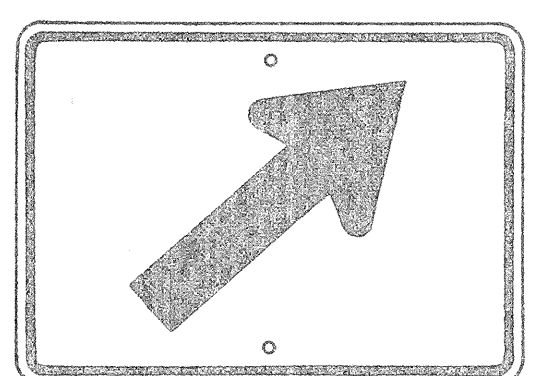
M6-1 21" x 15"



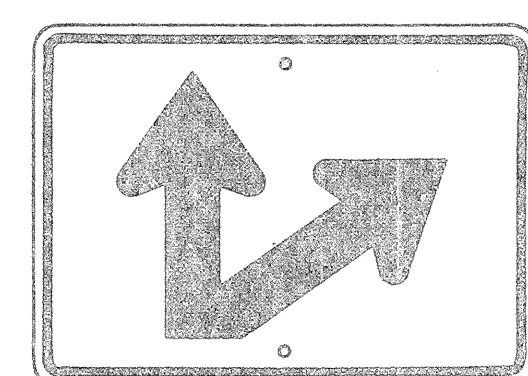
M6-6(R) 21" x 15"



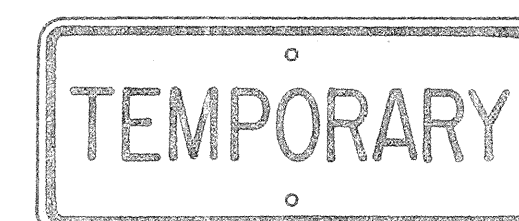
M4-6 24" x 12"



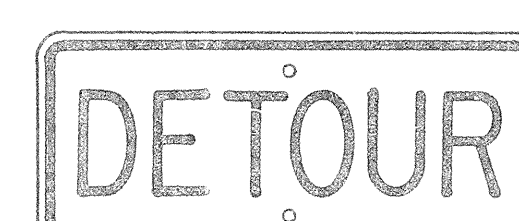
M6-2(R) 21" x 15"



M6-7(R) 21" x 15"



M4-7 24" x 12"



M4-8 24" x 12"

**GENERAL NOTES**

1. Marker details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, "Standard Alphabets for Highway Signs," 1966 and "Standard Highway Signs."
2. All markers shall be reflectorized unless otherwise specified.
3. All markers shall have 3/8" bolt holes drilled at appropriate locations.
4. Numerals in ( ) indicates numerals to be inserted for marker message. (R) or (L) indicates right or left.
5. Sign message of Cardinal Direction Marker (M3 series) shall be denoted by the following:  
M3-1 : NORTH  
M3-2 : EAST  
M3-3 : SOUTH  
M3-4 : WEST
6. Markers prefixed with "IM" on the plans shall have a white legend on a blue background.

ORIGINAL SURVEY BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 DESIGNED BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 No. \_\_\_\_\_

APPROVAL RECOMMENDED:  
*Erich Tanaka* 6/6/72  
 TRAFFIC ENGINEER DATE

APPROVED:  
*Shelton S. Sakai* 6-7-72  
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 105 Approved 12-30-69	H.C.	6/1/72

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

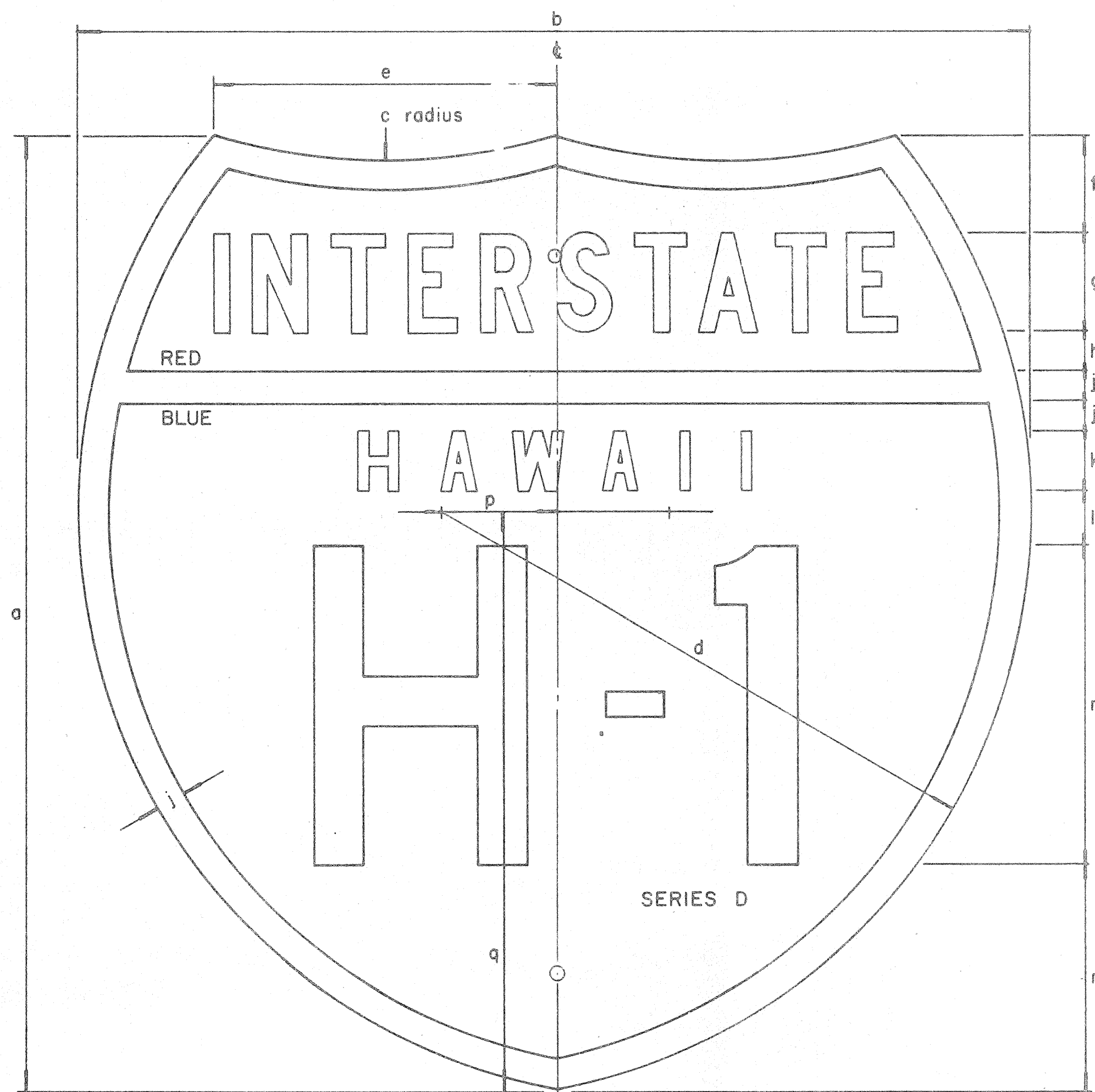
**STANDARD DETAILS**  
**STATE ROUTE MARKER**  
**AND AUXILIARY MARKERS**

Scale: As Shown  
 SHEET NO. 11 OF 12 SHEETS DT 105

**AUXILIARY MARKERS**

Not to Scale

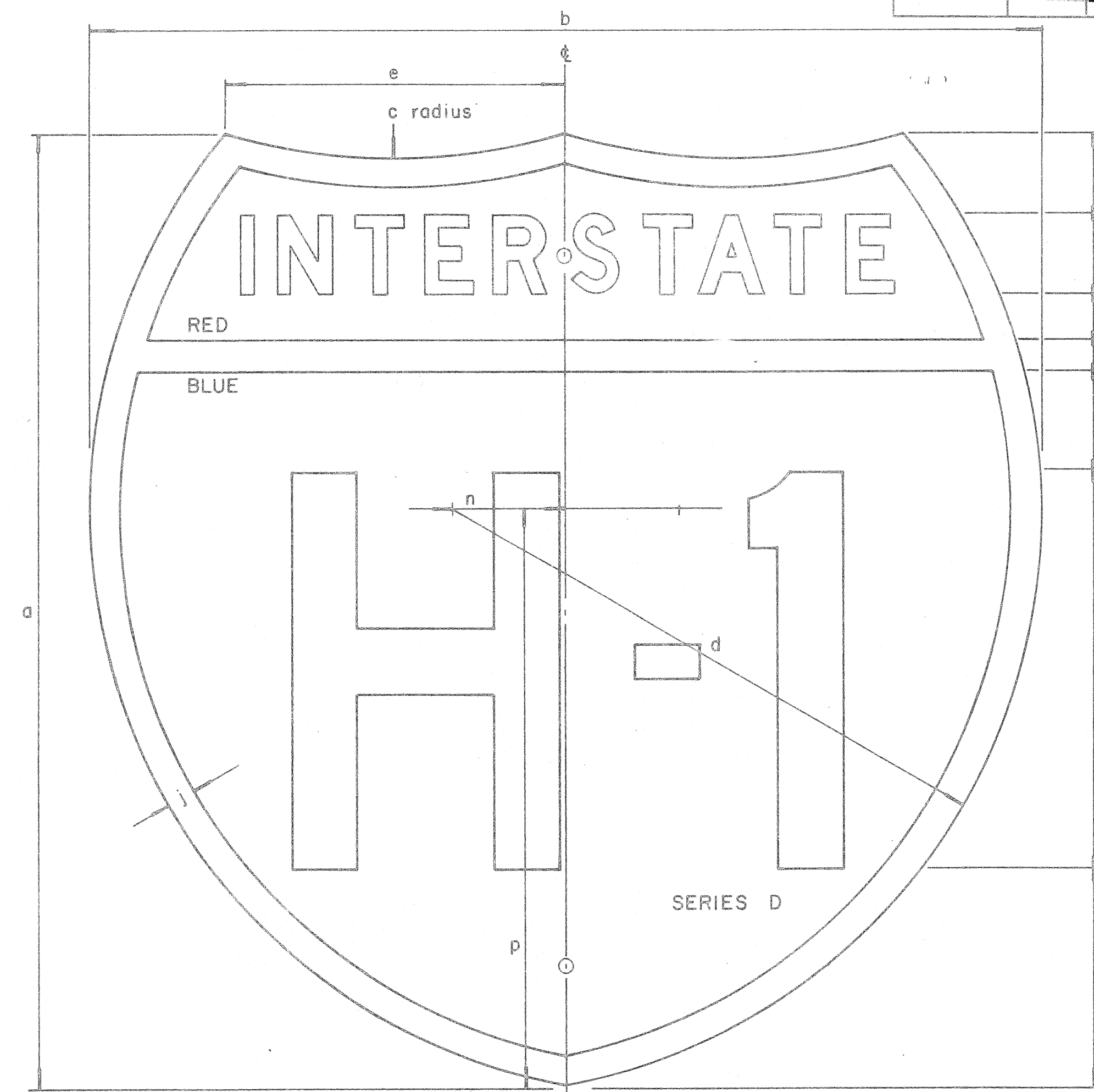
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-10-15	1973	85	220



INTERSTATE ROUTE MARKER  
IM-1( )

INTERSTATE SHIELDS - INDEPENDENT USE

( )	a	b	c	d	e	f	g	h	j	k	l	m	n	p	q
1	18	21	13 1/8	12 9/16	9 3/16	12 5/32	1 7/8 C	3/4	9/16	1 1/8 D	1 1/32	6	4 5/16	2 1/16	12 7/16
2	24	24	15	14 7/8	8 5/8	2 3/8	2 1/2 C	1	3/4	1 1/2 D	1 3/8	8	5 3/4	2 7/8	14 5/8
3	36	36	22 1/2	22 5/16	12 15/16	3 9/16	3 3/4 C	1 1/2	1 1/8	2 1/4 D	2 1/16	12	8 5/8	4 5/16	21 15/16



INTERSTATE ROUTE MARKER  
IM-2( )

INTERSTATE SHIELDS ON GUIDE SIGNS

( )	a	b	c	d	e	f	g	h	j	k	l	m	n	p
2	24	24	15	14 7/8	8 5/8	2	2 D	1 3/16	3/4	2 9/16	10	5 1/2	2 7/8	14 5/8
3	36	36	22 1/2	22 5/16	12 15/16	3 7/16	3 C	1 5/16	1 1/8	3 1/8	15	9	4 5/16	21 15/16
4	48	48	30	29 3/4	17 1/4	4 3/4	5 C	2	1 1/2	4	18	12 3/4	5 3/4	29 1/4

GENERAL NOTES

- The shape, dimensions, symbols, wording, lettering, color 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, 1966
- All markers shall be reflectorized unless otherwise specified.
- All markers shall have 3/8" bolt holes drilled at appropriate locations unless otherwise specified.
- The Interstate Route Marker shall be a cut-out shield, in a red, white and blue design as shown on the plans.

APPROVAL RECOMMENDED:

*Eichi Tanaka*  
TRAFFIC ENGINEER 12/29/69  
DATE

APPROVED:

*John A. ...*  
ASSISTANT CHIEF, ENGINEERING 12-30-69  
DATE

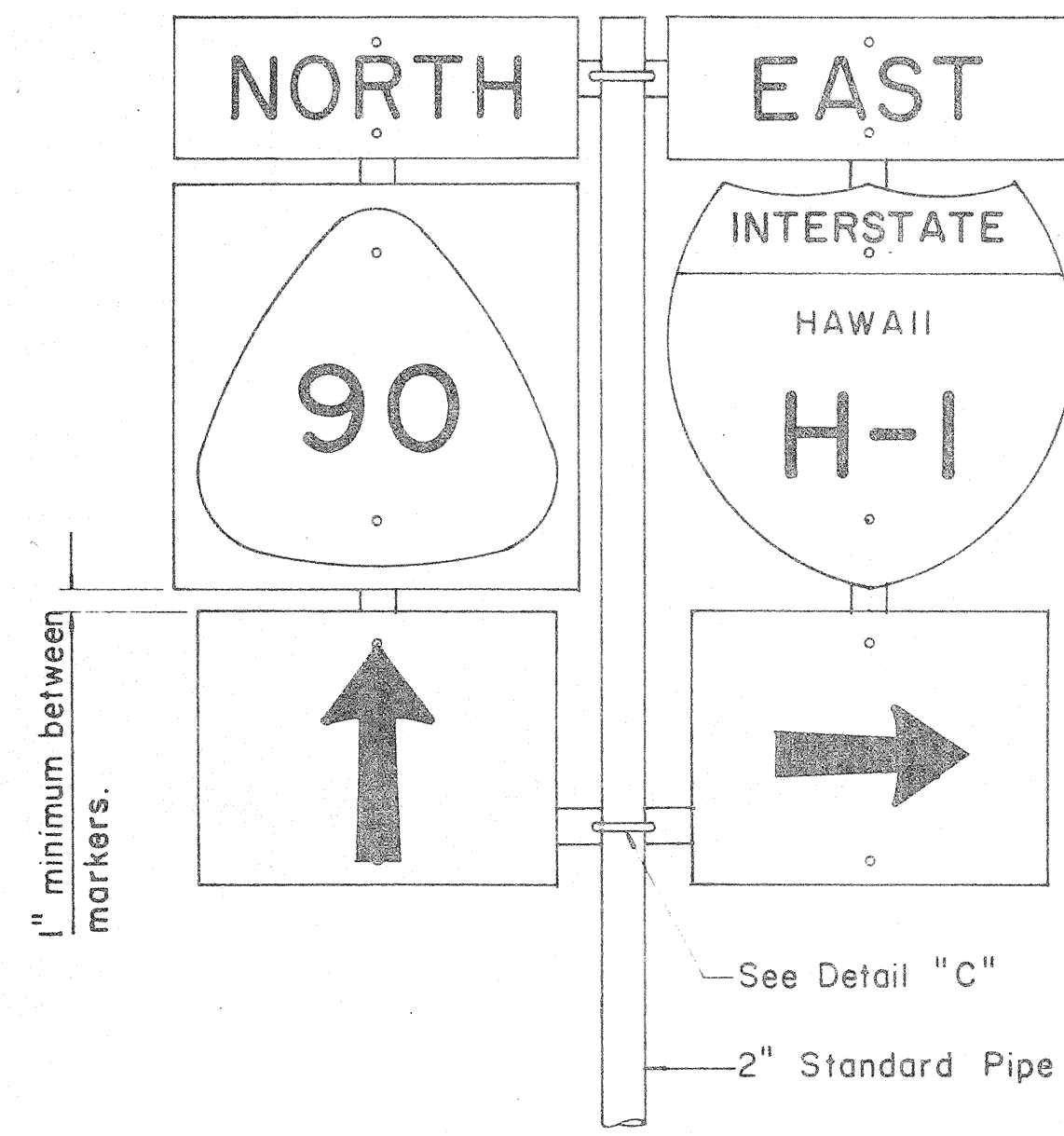
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STANDARD DETAILS**  
INTERSTATE ROUTE MARKERS

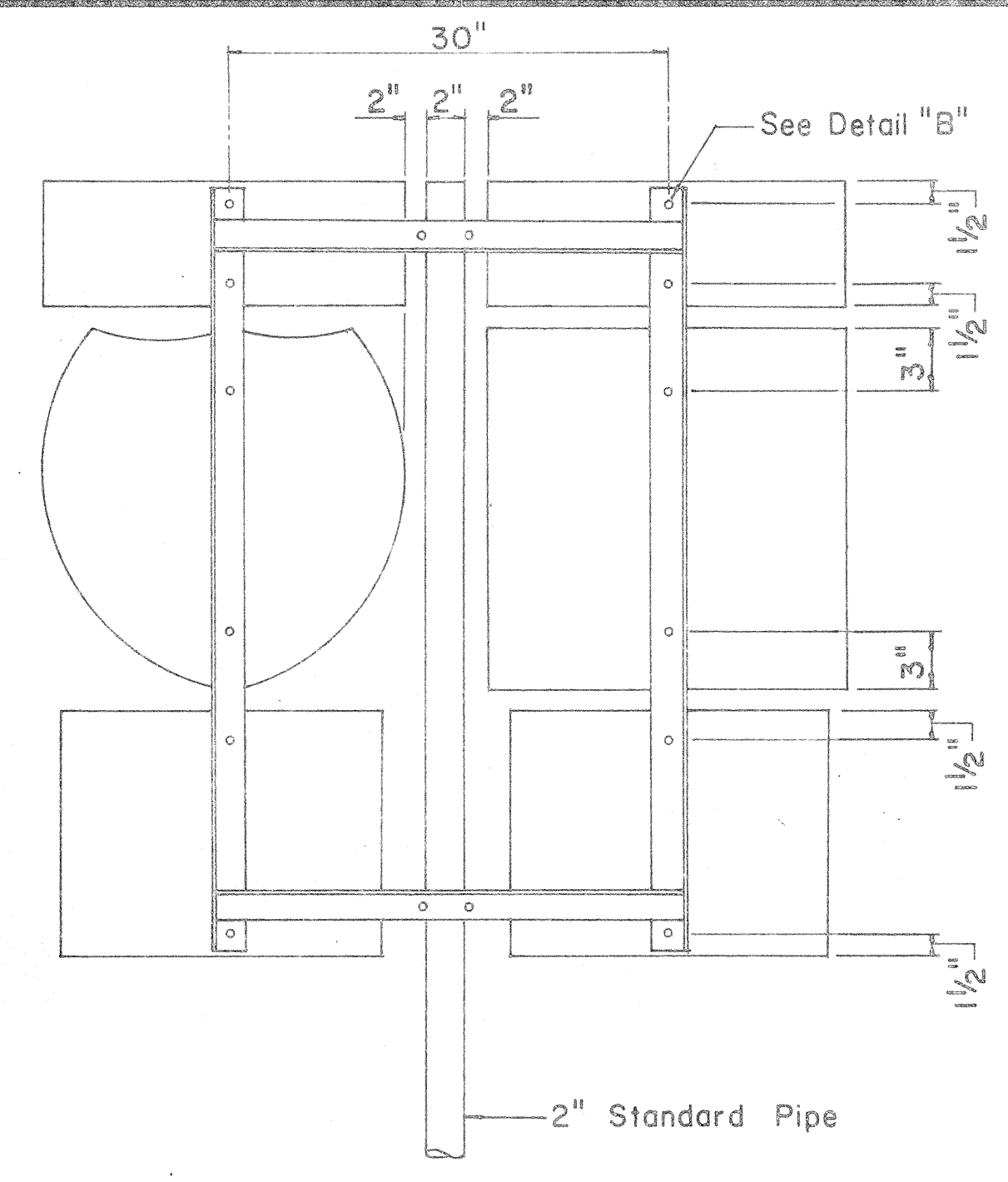
DATE \_\_\_\_\_  
SURVEY PLOTTED BY \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
DESIGNED BY \_\_\_\_\_  
NOTE BOOK QUANTITIES BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
No. \_\_\_\_\_

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-11-11015	1973	86	220



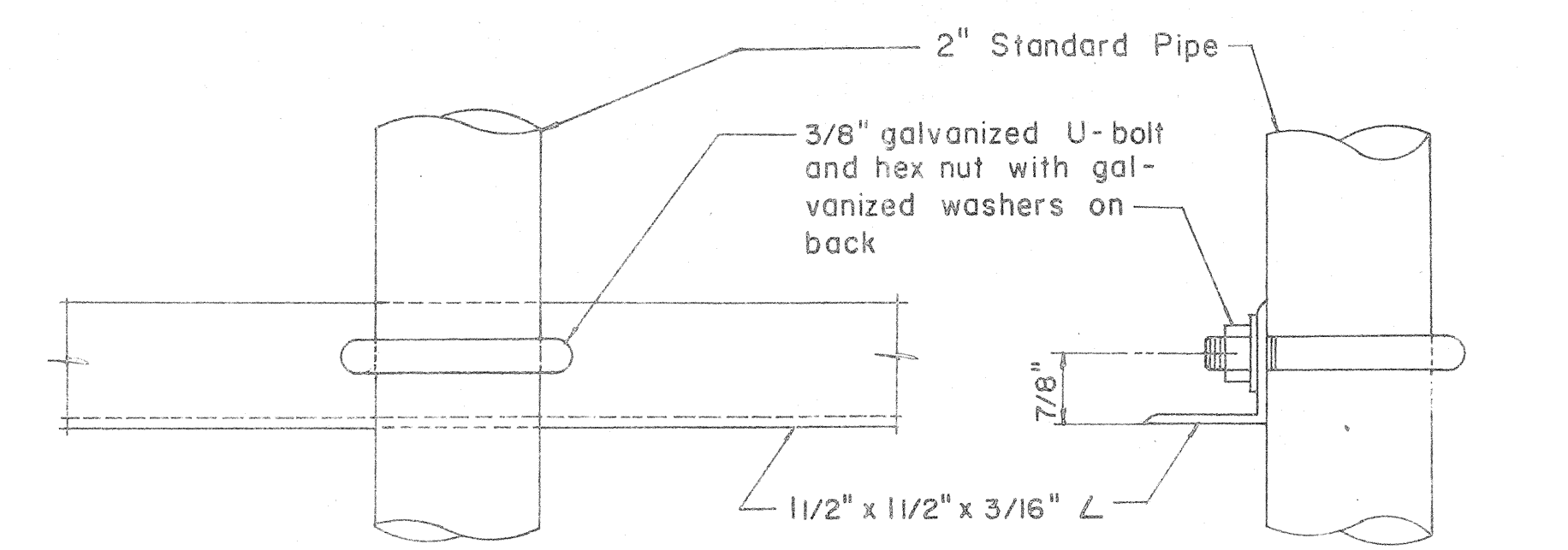
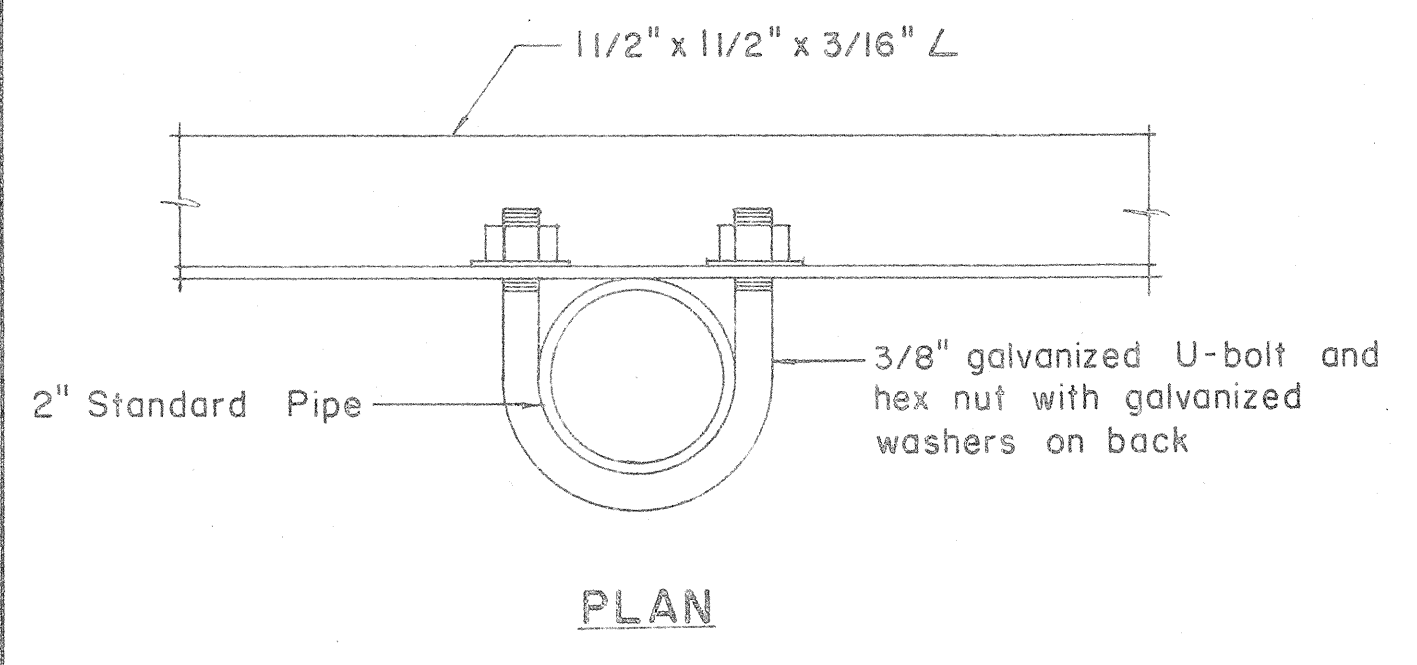
FRONT ELEVATION

TYPE "B" ASSEMBLY  
Not to Scale

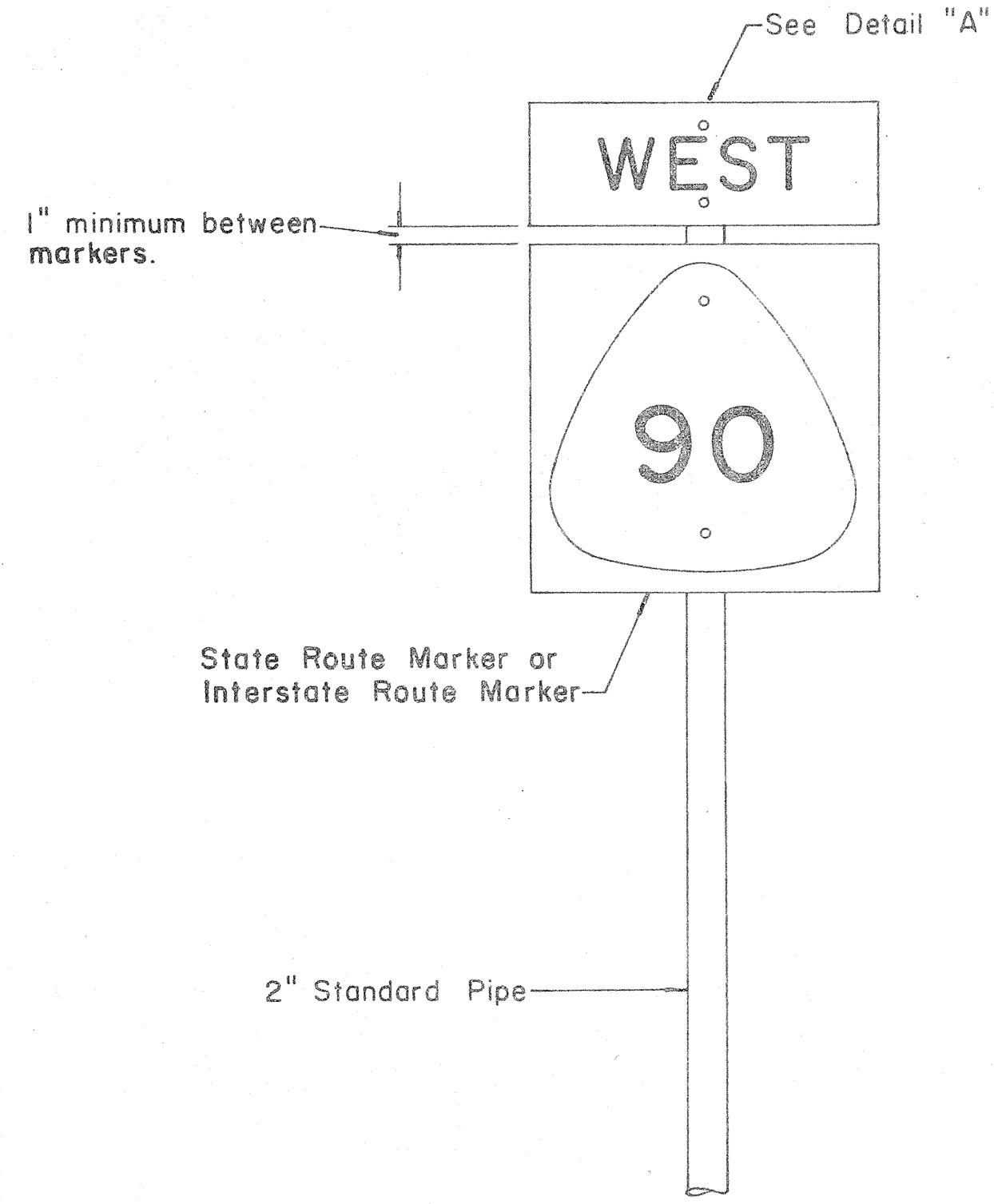


REAR ELEVATION

NOTE:  
1. Minimum clearance between markers shall be one inch. (Larger clearances shall be in multiples of one inch.)  
2. Pipe post for Type "A" & Type "B" Assembly shall be 2" Standard Pipe.

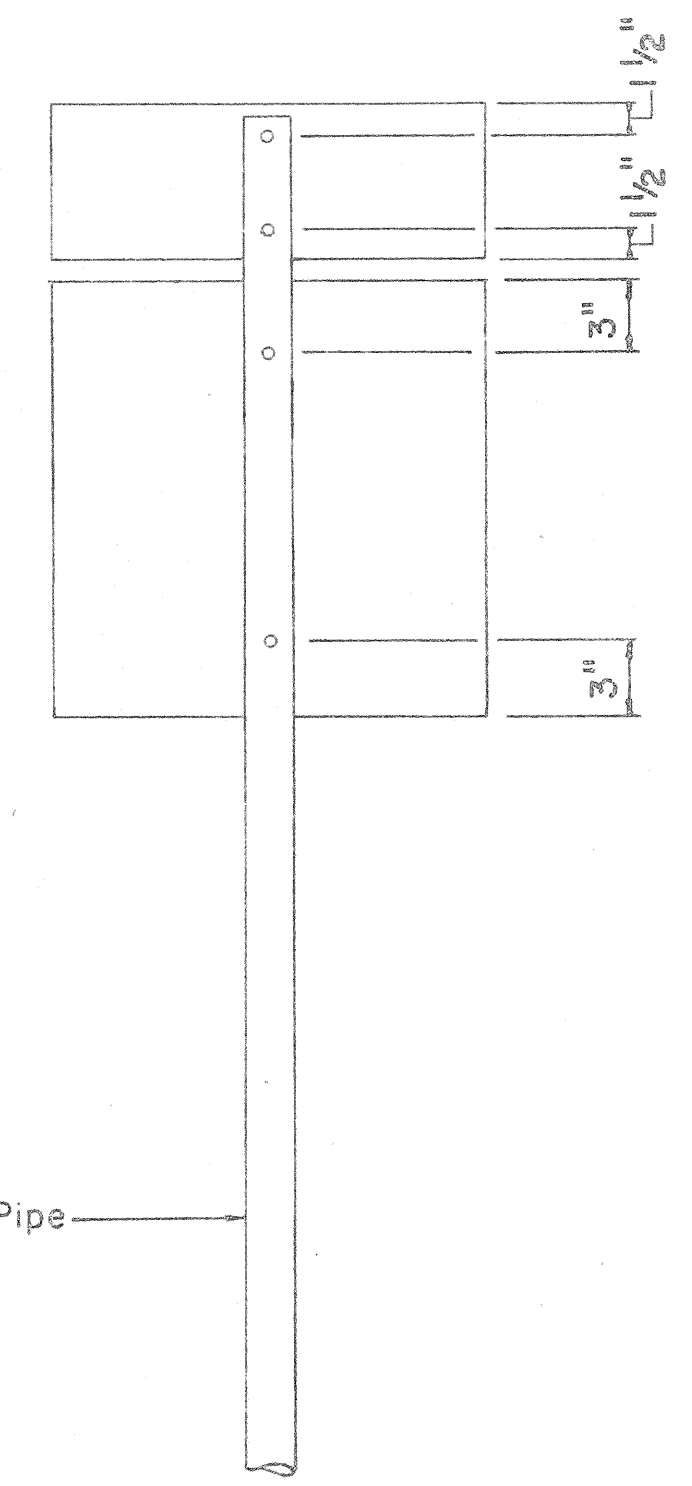


DETAIL "C"



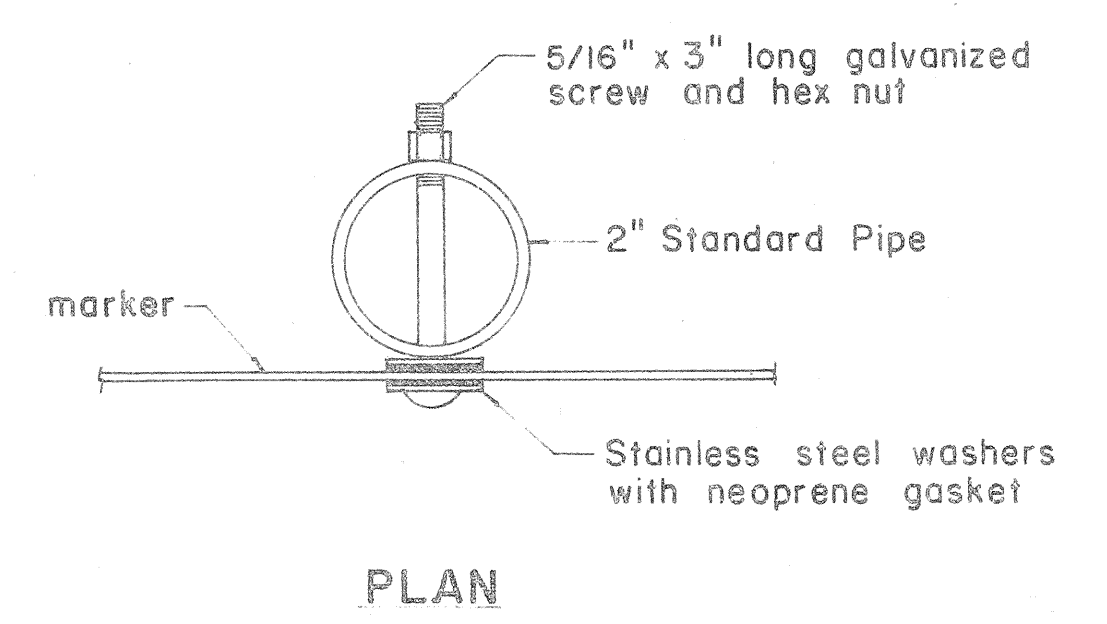
FRONT ELEVATION

TYPE "A" ASSEMBLY  
Not to Scale



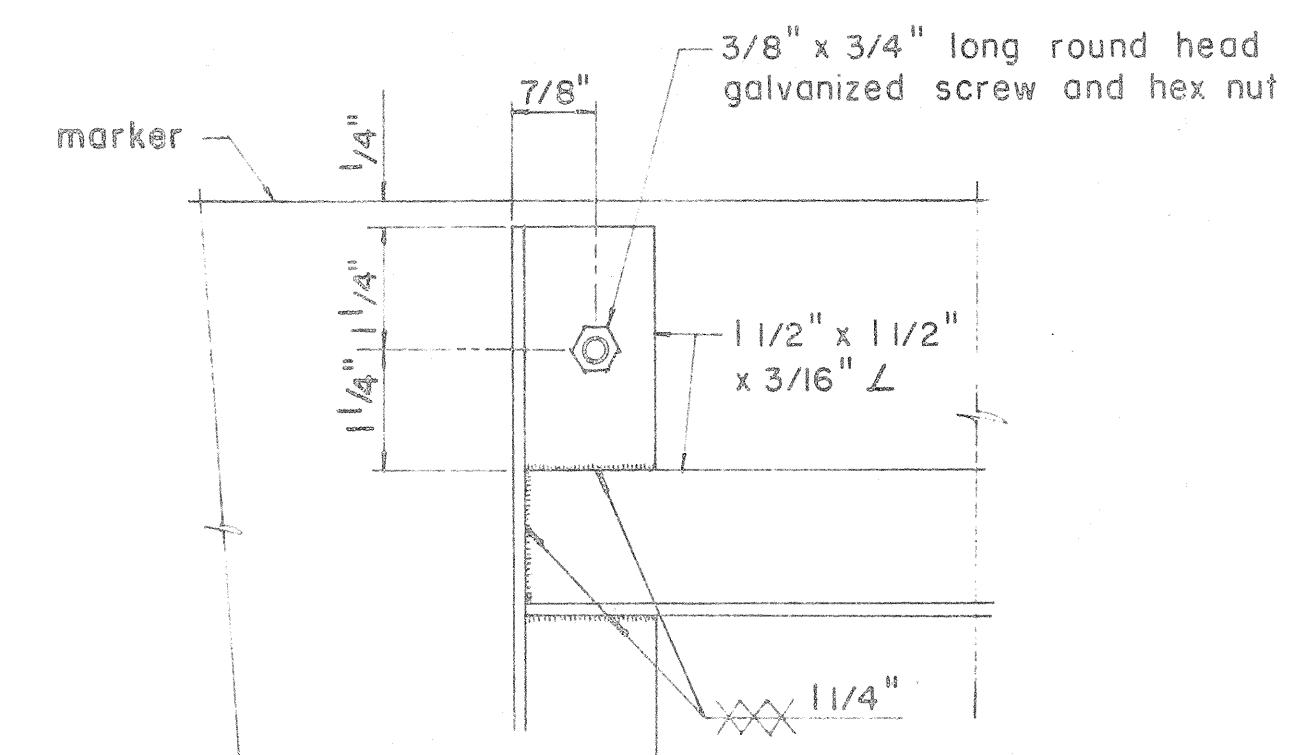
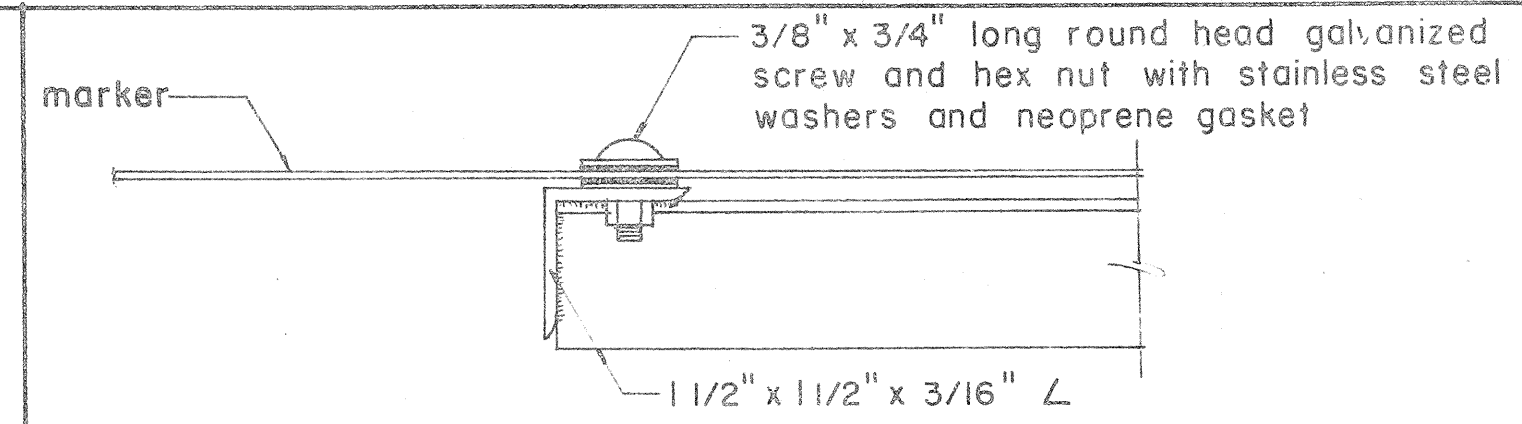
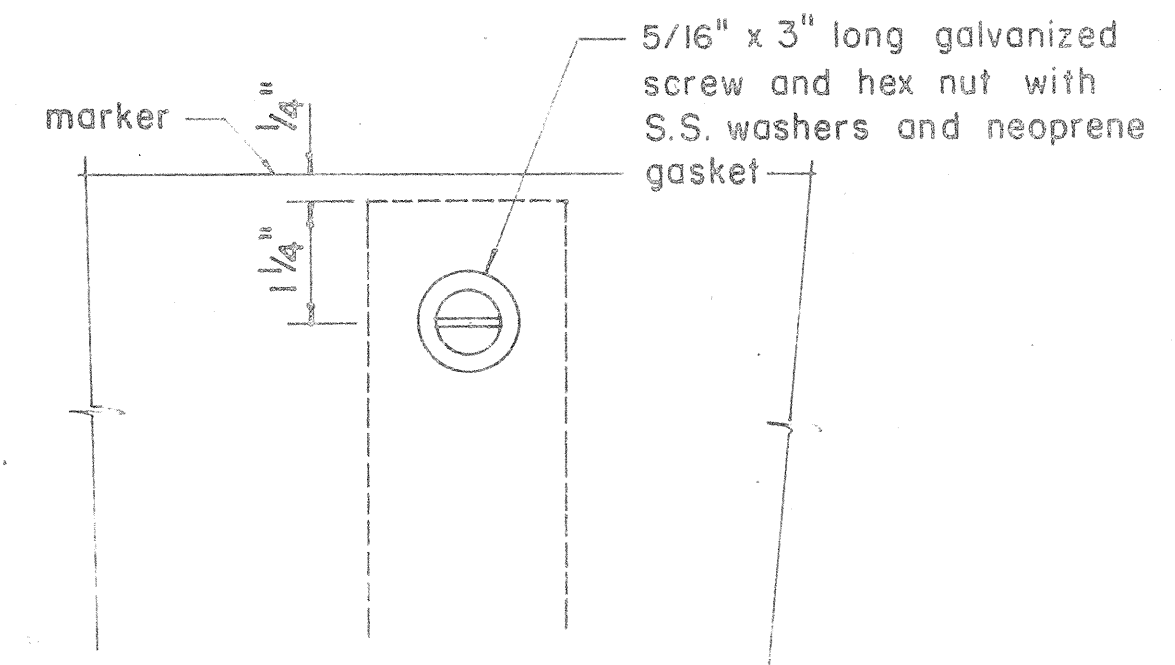
REAR ELEVATION

NOTE:  
For height and lateral location of Route Marker Assembly, see plan sheet DT 100.

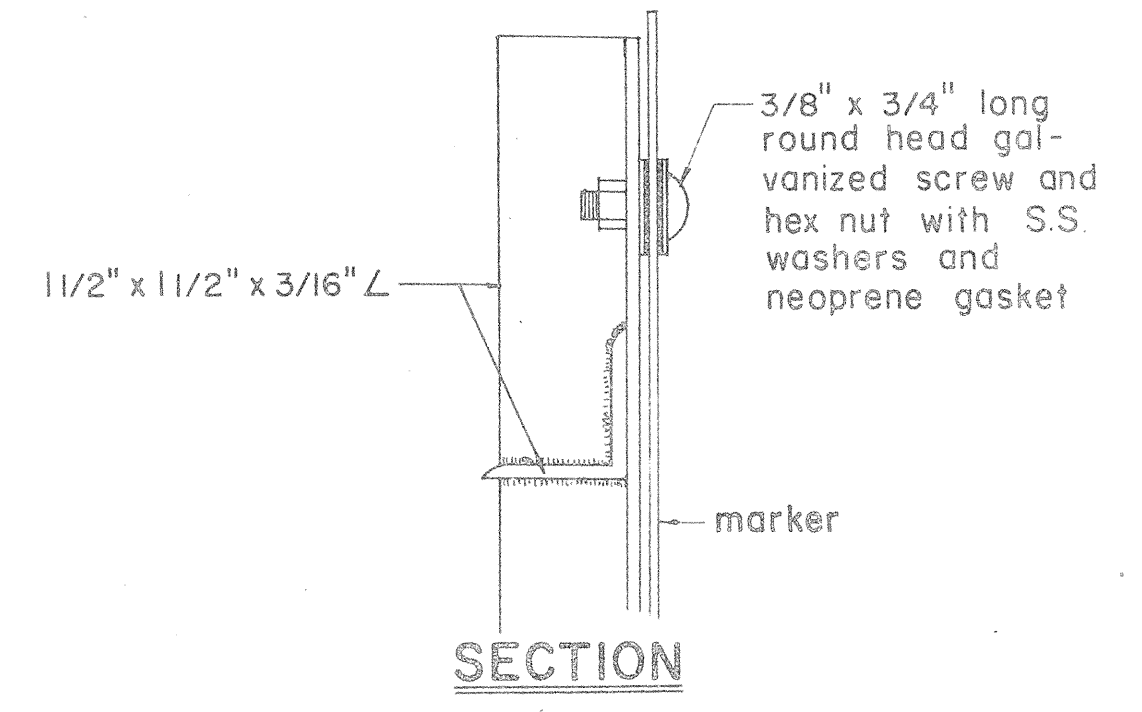


FRONT ELEVATION

DETAIL "A"



DETAIL "B"



APPROVAL RECOMMENDED:  
*E. Iwaki Tanaka* 12/29/69  
TRAFFIC ENGINEER DATE

APPROVED:  
*W. B. D. D. D.* 12-30-69  
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Revisions to Route Marker Assemblies.	H.T.	6/1/72

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

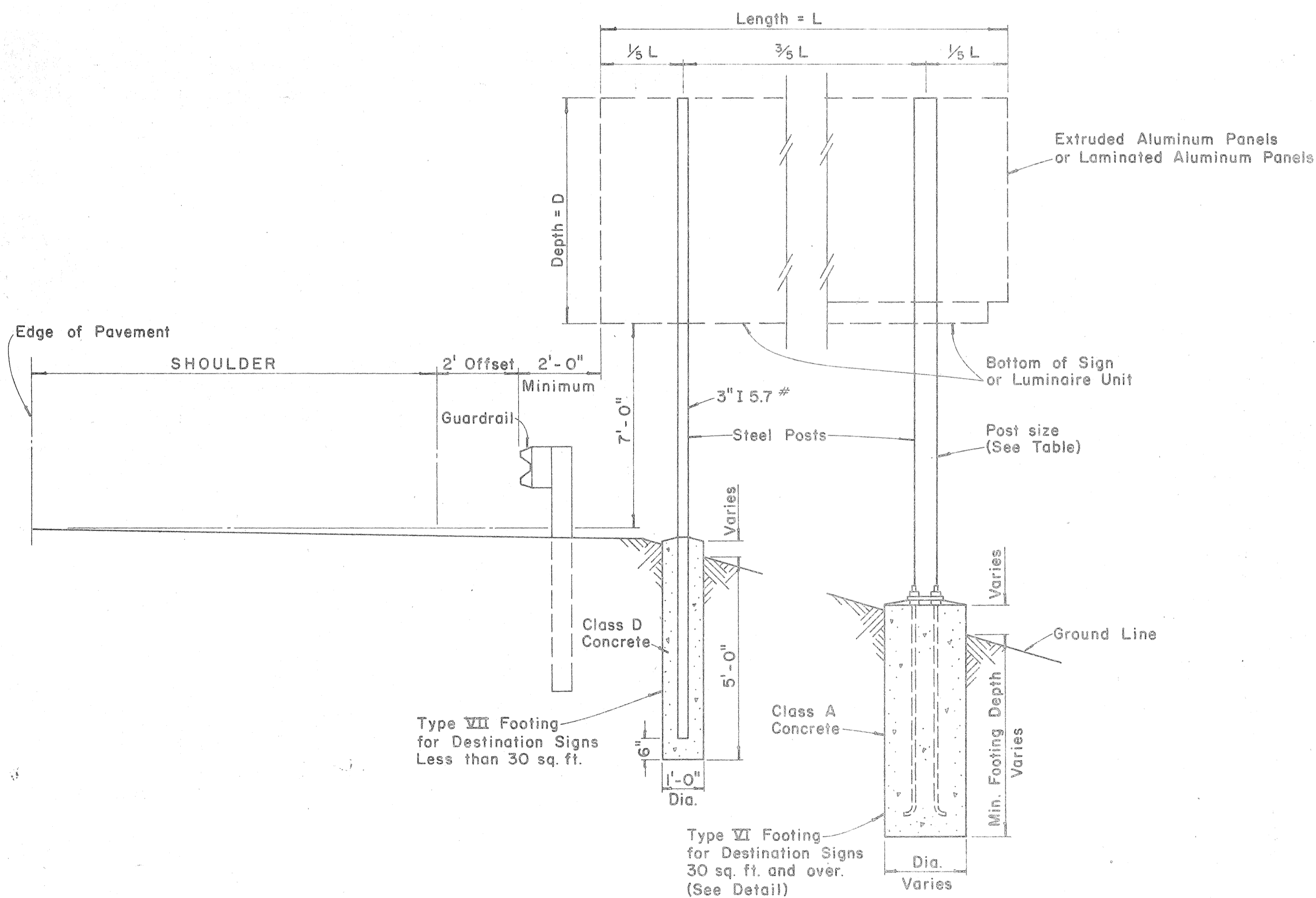
STANDARD DETAILS  
ROUTE MARKER ASSEMBLIES

Scale: As Shown  
SHEET No. 13 OF 17 SHEETS DT 107

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

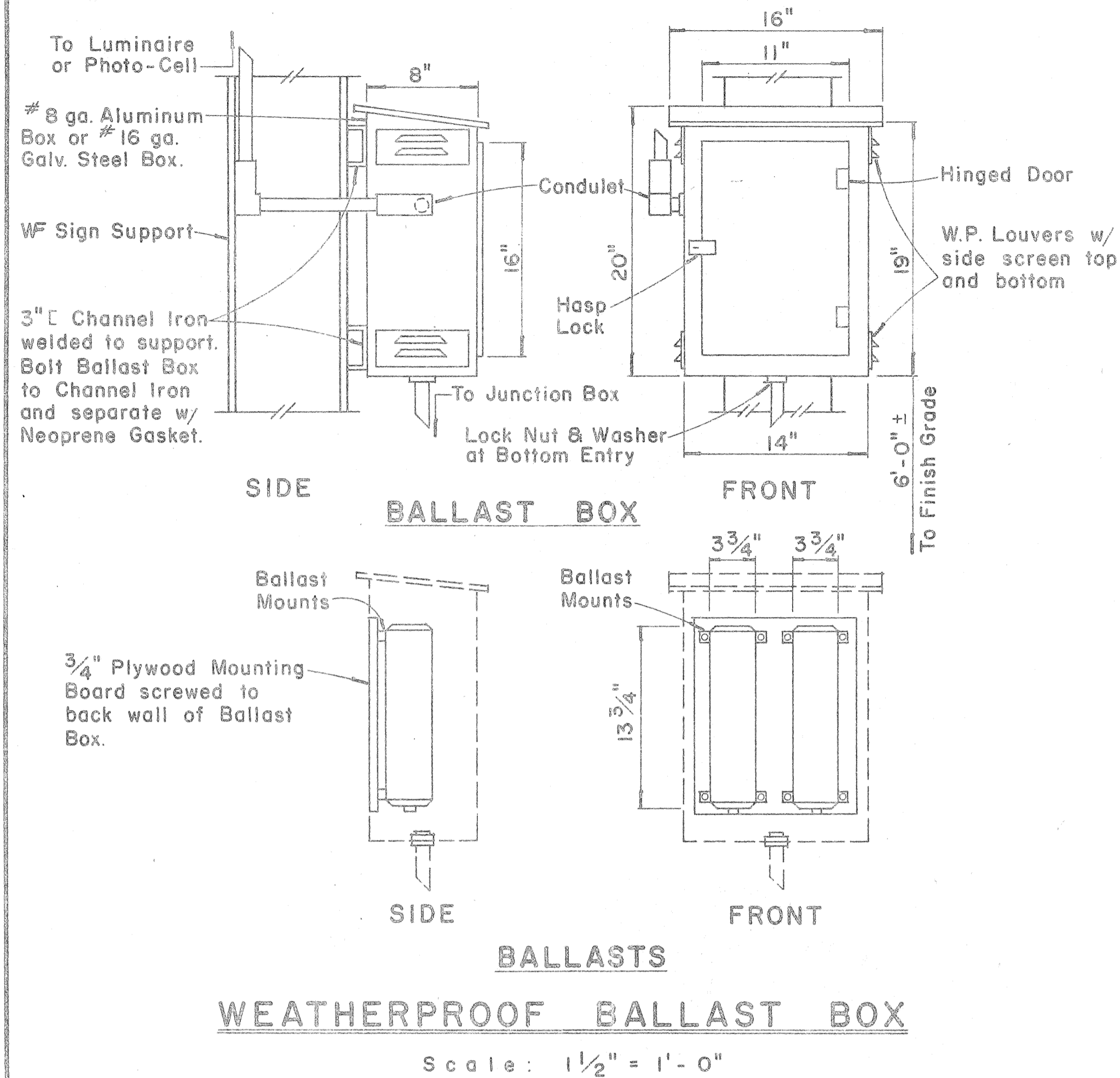
\* For moment calculations only. Post shall be from top of foundation to top of sign.  
 \*\* For fills with side slopes flatter than 4:1, Minimum Footing Depth shall be 4 1/2 feet.

POST SIZE	MAXIMUM SIGN AREA	POST HEIGHT TOP OF FOUNDATION TO CENTER OF SIGN *	DIMENSIONS											ANCHOR BOLT DIA.	MINIMUM FOOTING DEPTH		
			H	J	K	M	N	O	P	S	T	U	V		W	CUT	FILL**
8 J 10	50 sq. ft.	14'	14"	5"	24"	17 1/4"	1 5/8"	6"	1 1/4"	9"	6"	10"	2"	1"	1 1/8" Ø	4 1/2'	4 1/2'
8 WF 24	90 sq. ft.	21'															5'
8 WF 35	190 sq. ft.	15'	16 1/2"	6 3/4"	30"	20"	1 3/4"	6"	1 3/8"	11 3/4"	6 1/2"	10"	1 3/4"	1"	1 1/4" Ø	6'	7'
10 WF 45	190 sq. ft.	25'															
10 WF 45	200 sq. ft.	25'															
12 WF 50	230 sq. ft.	25'														7'	
12 WF 50	250 sq. ft.	23'															



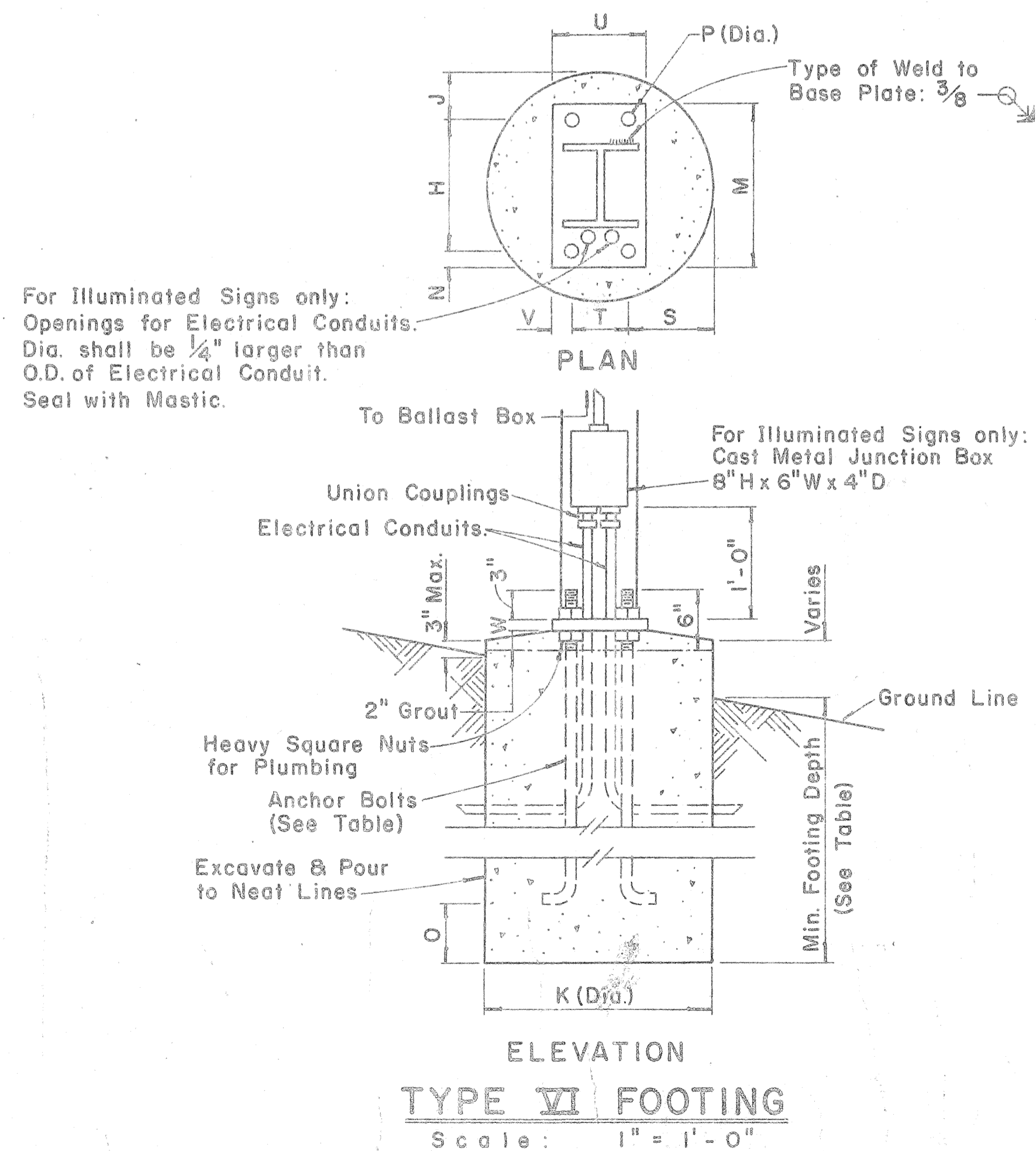
TYPICAL DESTINATION & GROUND MOUNTED EXPRESSWAY SIGN

Not to Scale



WEATHERPROOF BALLAST BOX

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



ELEVATION TYPE VI FOOTING

Scale: 1" = 1'-0"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(10)45	1973	87	220

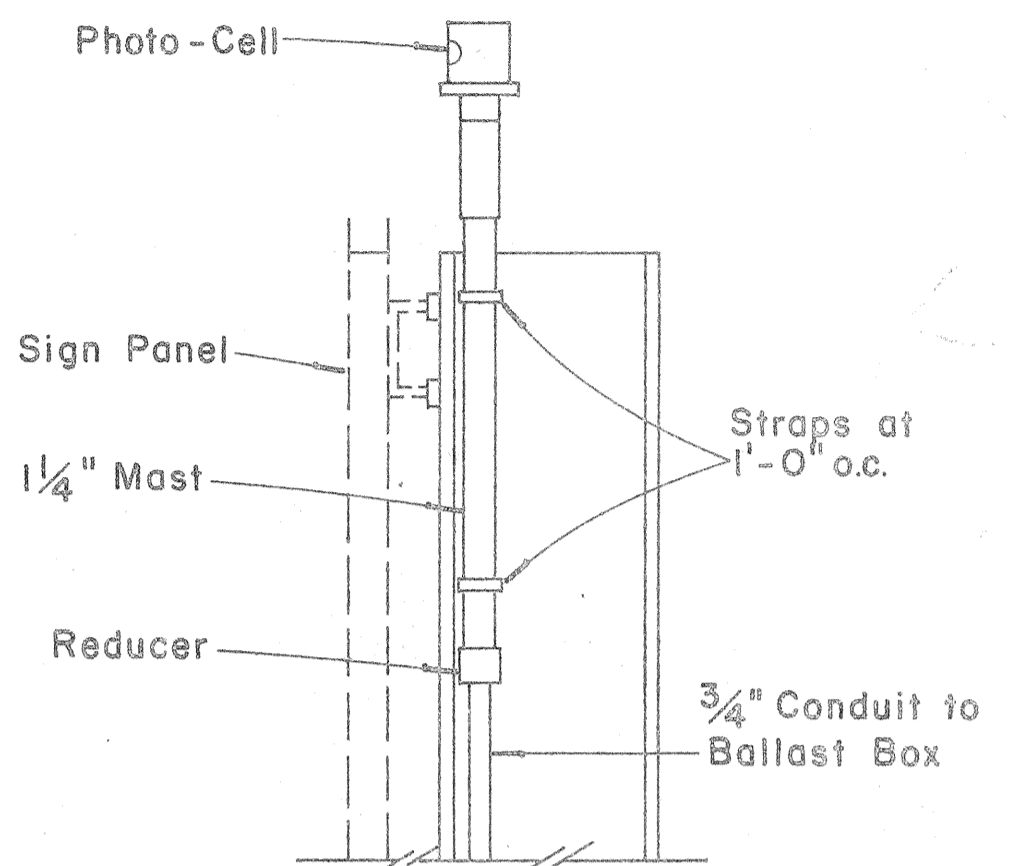


PHOTO-CELL DETAIL

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

APPROVAL RECOMMENDED:  
*Euchi Tanaka* 12/29/69  
 TRAFFIC ENGINEER DATE

APPROVED:  
*John P. Selig* 12-29-69  
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

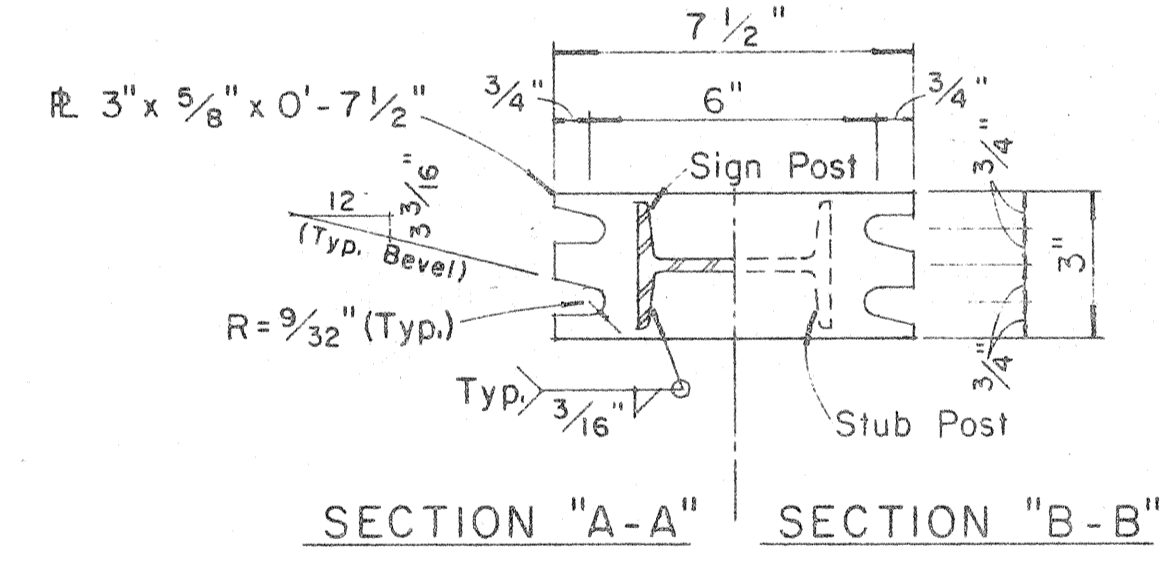
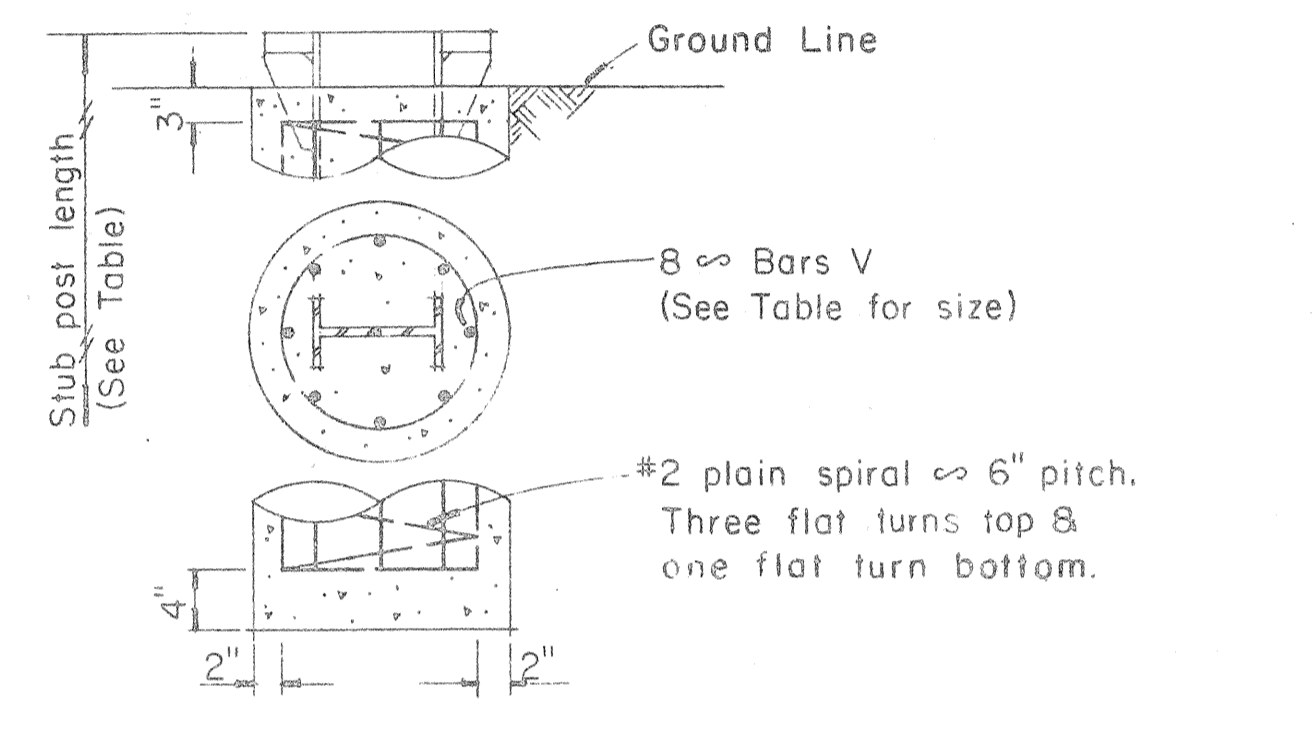
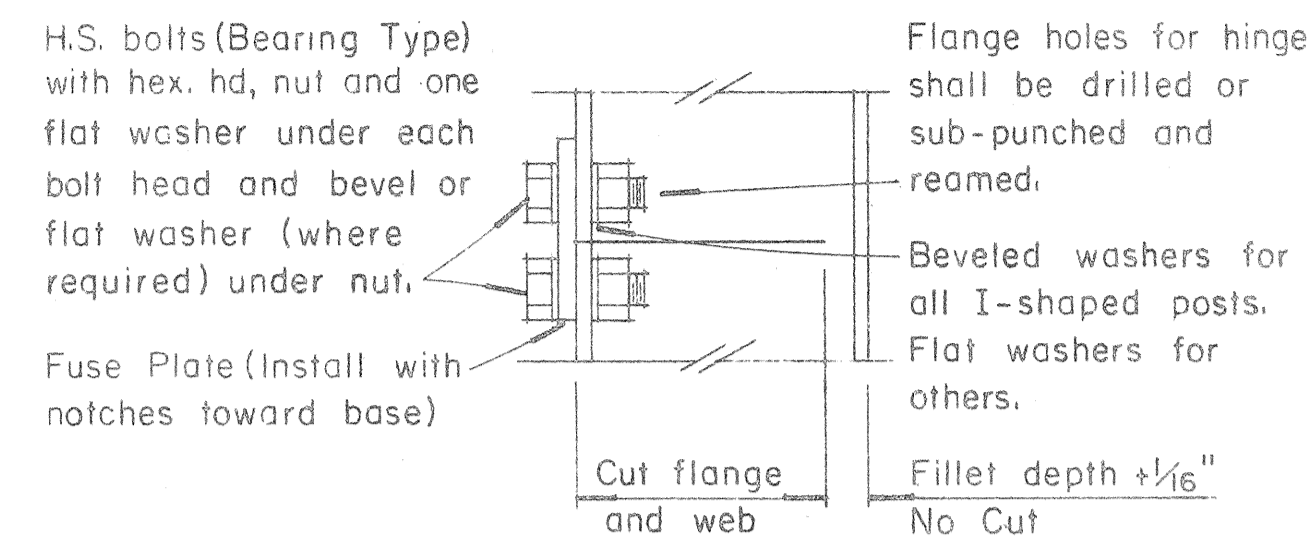
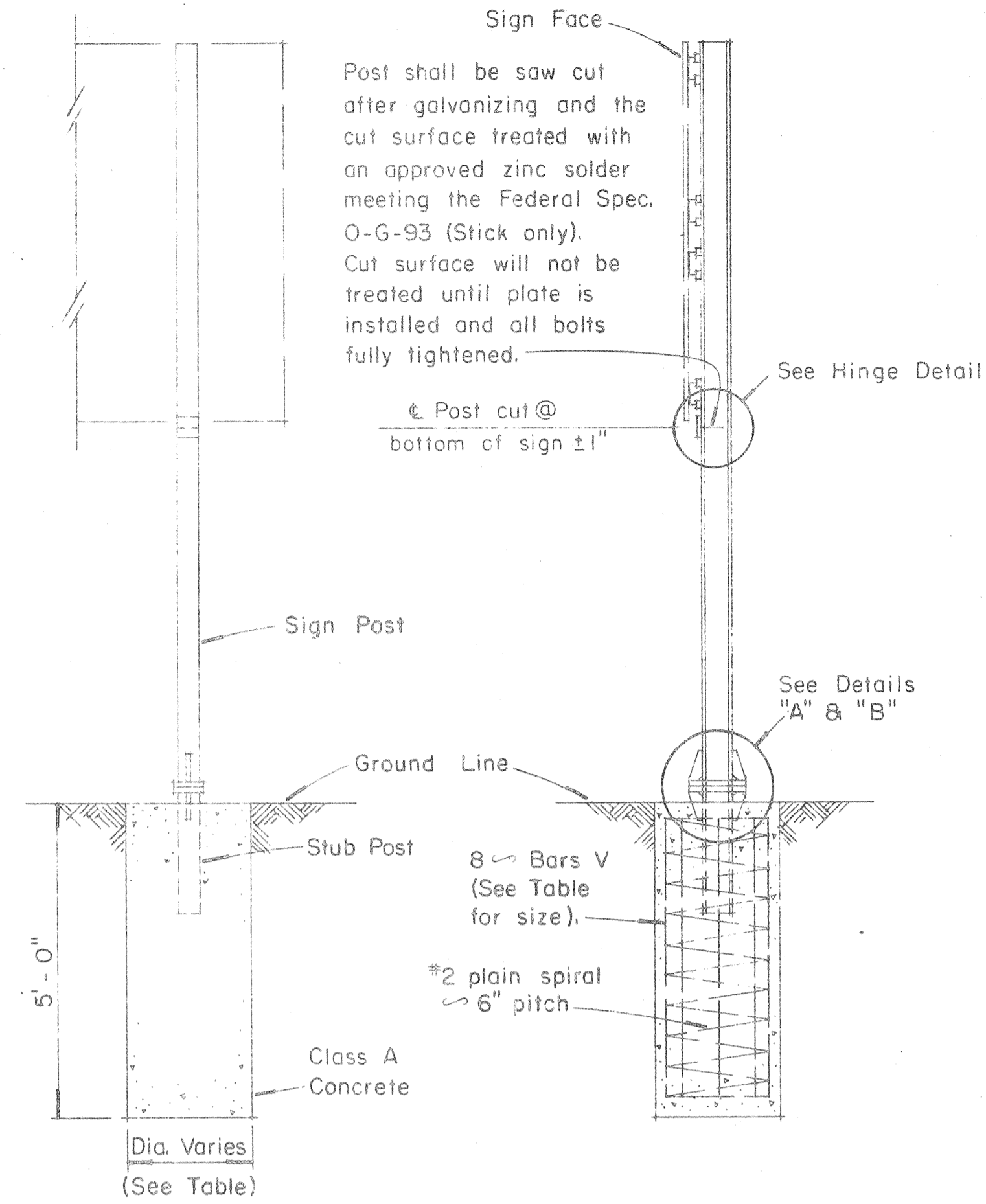
STANDARD DETAILS  
 DESTINATION & GROUND MOUNTED  
 EXPRESSWAY SIGNS

Scale: As Shown  
 SHEET No. 14 OF 19 SHEETS DT 203

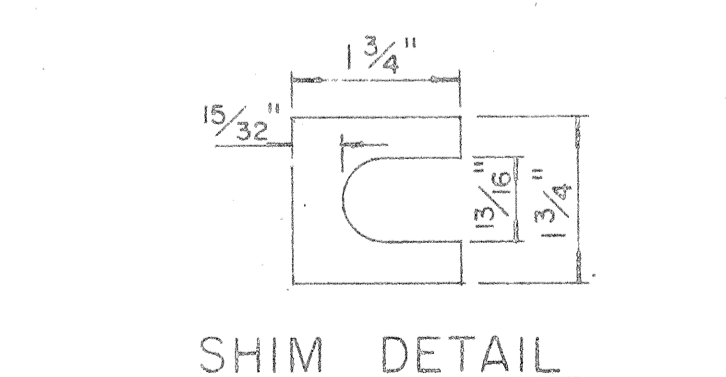
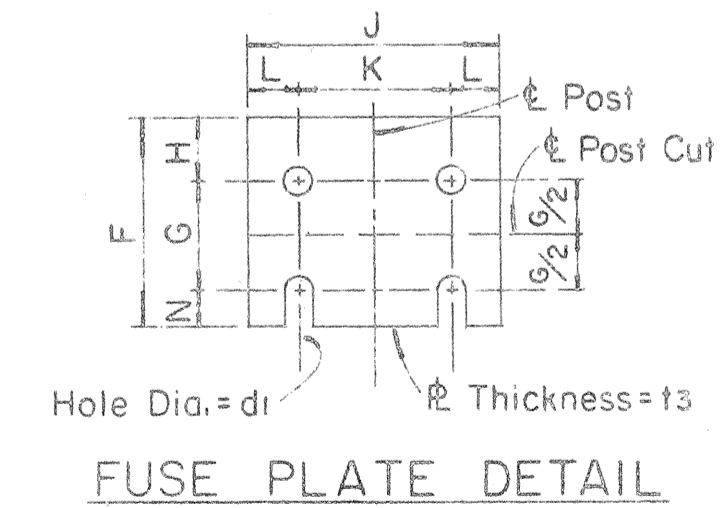
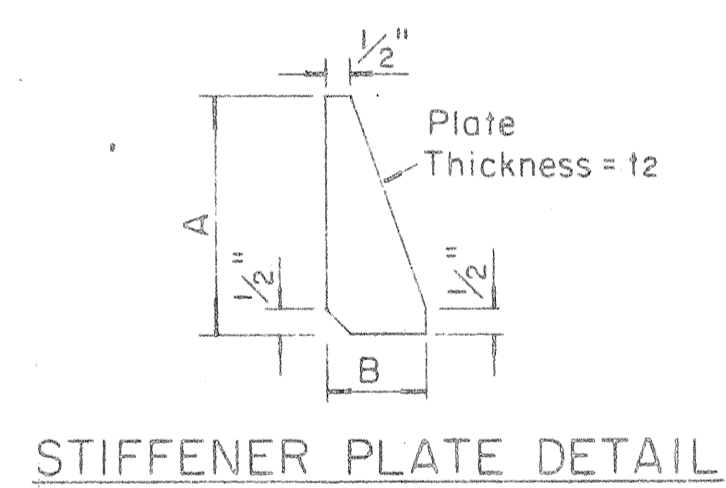
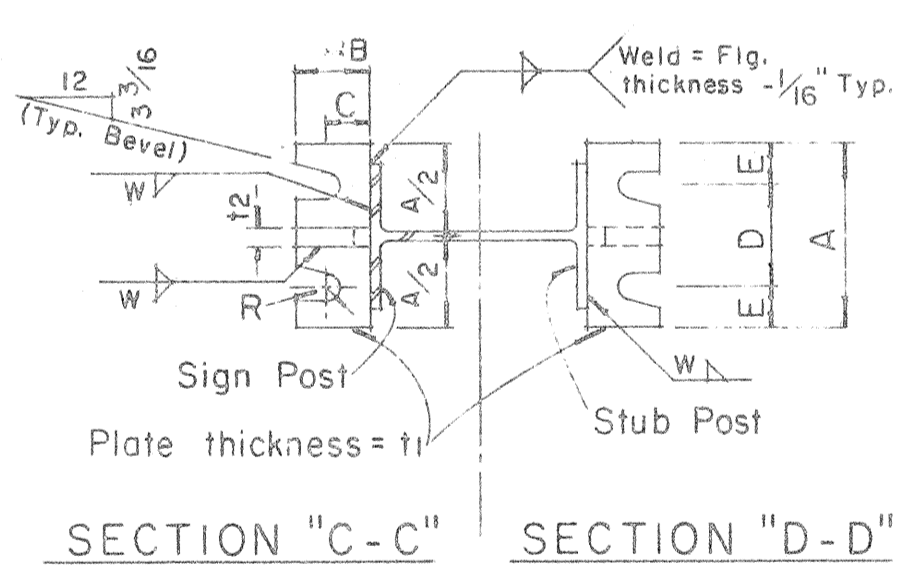
ORIGINAL PLAN  
 SURVEY PLOTTED BY  
 DATE  
 FRACED BY  
 DESIGNED BY  
 QUANTITIES BY  
 CHECKED BY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	111(10)15	1973	88	220

Post Size	BASE CONNECTION DATA TABLE										FUSE PLATE DATA TABLE										FOUNDATION DATA					
	Bolt Size & Torque	A	B	C	D	E	t1	t2	W	R	F	G	H	J	K	L	N	d1	t3	Bolt Dia.	Wt. of each Fuse Pl.	Stub Length	Stub Projection	Footing Diameter	Bars V Size	
6 B 8.5											3 5/8"	2"	1 1/8"	4"	2 1/4"	7/8"	1/2"	9/16"	1/4"	1/2"	1.09#	2'-0"	3"	2'-0"	#5	
6 B 12	5/8" ϕ x 2 3/4" Torque = 450#*	5"	2"	1 1/4"	2 3/4"	1 1/8"	3/4"	1/2"	1/4"	11/32"	3 3/4"	2"	1 1/8"	4"	2 1/4"	7/8"	5/8"	11/16"	3/8"	5/8"	1.60#	2'-0"	3"	2'-0"	#5	
6 B 15.5											4 1/2"	2 1/2"	1 1/4"	6"	3 1/2"	1 1/4"	3/4"	13/16"	1/2"	3/4"	3.75#	2'-6"	3"	2'-0"	#6	
8 WF 17											4 1/2"	2 1/2"	1 1/4"	5 1/4"	2 3/4"	1 1/4"	3/4"	13/16"	1/2"	3/4"	3.27#	2'-6"	3"	2'-0"	#7	
8 WF 20											4 7/8"	2 1/2"	1 1/2"	5 1/4"	2 3/4"	1 1/4"	7/8"	15/16"	9/16"	7/8"	3.93#	3'-0"	2 1/2"	2'-0"	#8	
10 WF 21	3/4" ϕ x 3 1/2" Torque = 750#*	6"	2 1/4"	1 3/8"	3 1/2"	1 1/4"	1"	3/4"	5/16"	13/32"	5 3/8"	3"	1 1/2"	5 3/4"	2 3/4"	1 1/2"	7/8"	15/16"	9/16"	7/8"	4.75#	3'-0"	2 1/2"	2'-0"	#9	
10 WF 25											5 3/8"	3"	1 1/2"	5 3/4"	2 3/4"	1 1/2"	7/8"	15/16"	9/16"	7/8"	4.79#	3'-0"	2 1/2"	2'-0"	#10	
12 WF 27											5 3/8"	3"	1 1/2"	6 1/2"	3 1/2"	1 1/2"	7/8"	15/16"	9/16"	7/8"	5.42#	3'-0"	2 1/2"	2'-0"	#11	
3 I 5.7	1/2" ϕ x 2 1/2" Torque = 200#*	SEE DETAIL "A"										3 1/8"	1 1/2"	1 1/8"	2 5/8"	1 1/2"	9/16"	1/2"	9/16"	1/4"	1/2"	0.64#	1'-6"	3 1/2"	1'-6"	#5
4 I 7.7												3 1/8"	1 1/2"	1 1/8"	2 5/8"	1 1/2"	9/16"	1/2"	9/16"	1/4"	1/2"	0.64#	1'-6"	3 1/2"	1'-6"	#5



NOTE:  
Sections shown are for installations on right shoulder and in gore. Reverse plate slot bevels for installations on left shoulder.



GENERAL NOTES

- Design conforms with AASHTO Specifications for the design and Construction of Structural Supports for Highway Signs.
- Materials and Fabrication shall conform to the requirements of the Standard Specifications and Special Provisions.
- All holes shall be drilled. All plate cuts shall preferably be saw cuts, however; flame cutting will be permitted provided all edges are ground. Metal projecting beyond the plane of the plate face will not be tolerated.
- Tighten the high strength bolts in the base connection only to the torque shown, do not over-tighten. All bolts other than high strength bolts shall conform to ASTM A 307, Class A.
- All structural steel, bolts, nuts and washers shall be galvanized as per the Standard Specifications and Special Provisions. Structural steel to be galvanized after fabrication except as noted.
- Structural steel shall conform with with the requirements of ASTM A 441
- Galvanizing of all posts shall be projection above concrete plus 6" minimum.
- All friction fuse bolts shall be tightened in the shop following a method approved by the Engineer. Tightening shall be to such a degree as to obtain the following minimum residual tension in each bolt:

Bolt Size	Min. Tension	Bolt Size	Min. Tension
1/2" ϕ	12050 Lbs.	3/4" ϕ	28400 Lbs.
5/8" ϕ	19200 Lbs.	7/8" ϕ	36050 Lbs.

Furnish 2 @ .012" ± thick and 2 @ .032" ± thick shims per post. Shims shall be fabricated from brass shim stock or strip conforming to A.S.T.M.-B 36.

APPROVAL RECOMMENDED:  
*Eiichi Tanaka* 12/29/69  
TRAFFIC ENGINEER DATE

APPROVED:  
*John J. O'Neil* 12-30-69  
ASSISTANT CHIEF, ENGINEERING DATE

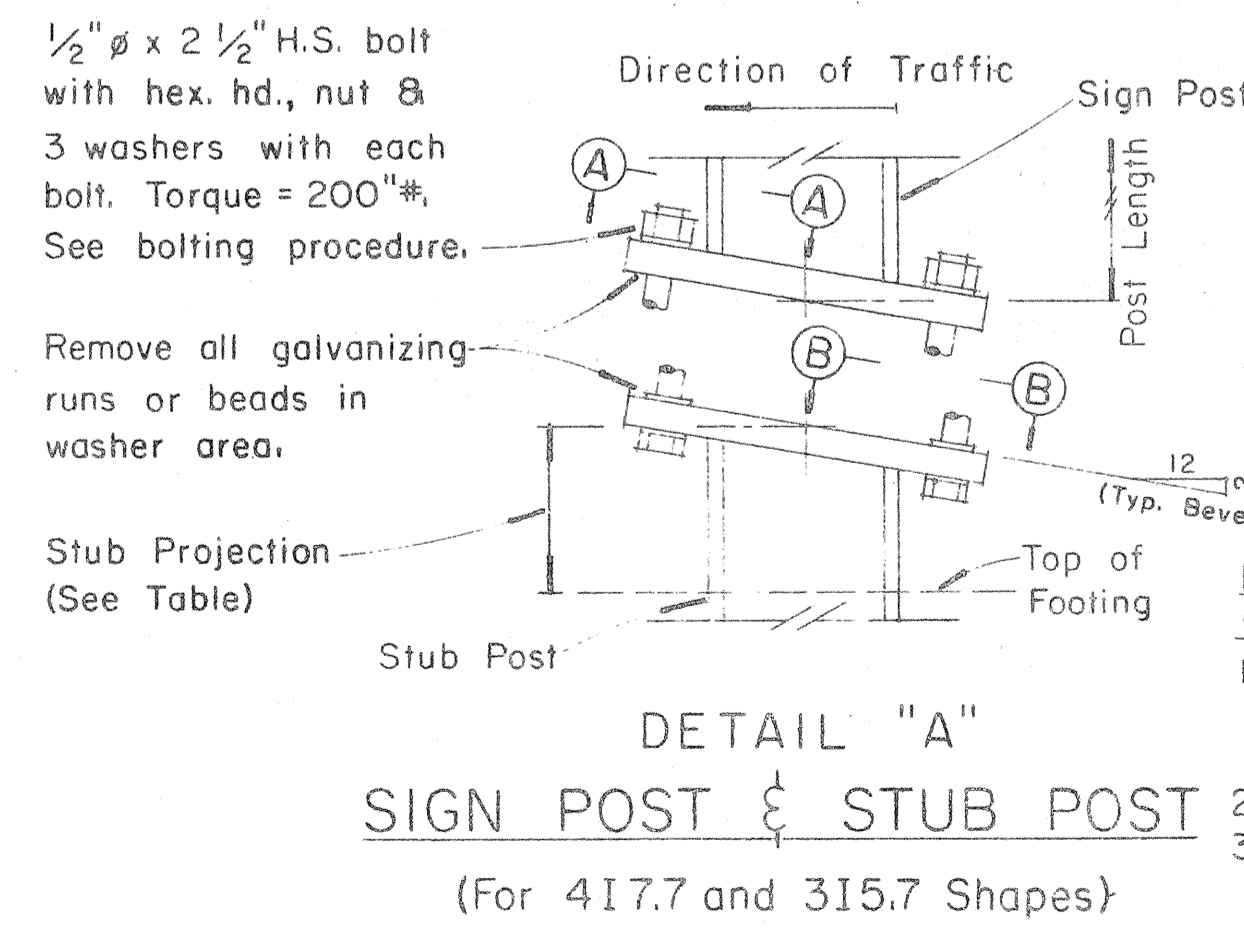
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STANDARD DETAILS**  
**BREAK-AWAY SIGN SUPPORTS**  
**FOR**  
**GROUND MOUNTED GUIDE SIGNS**

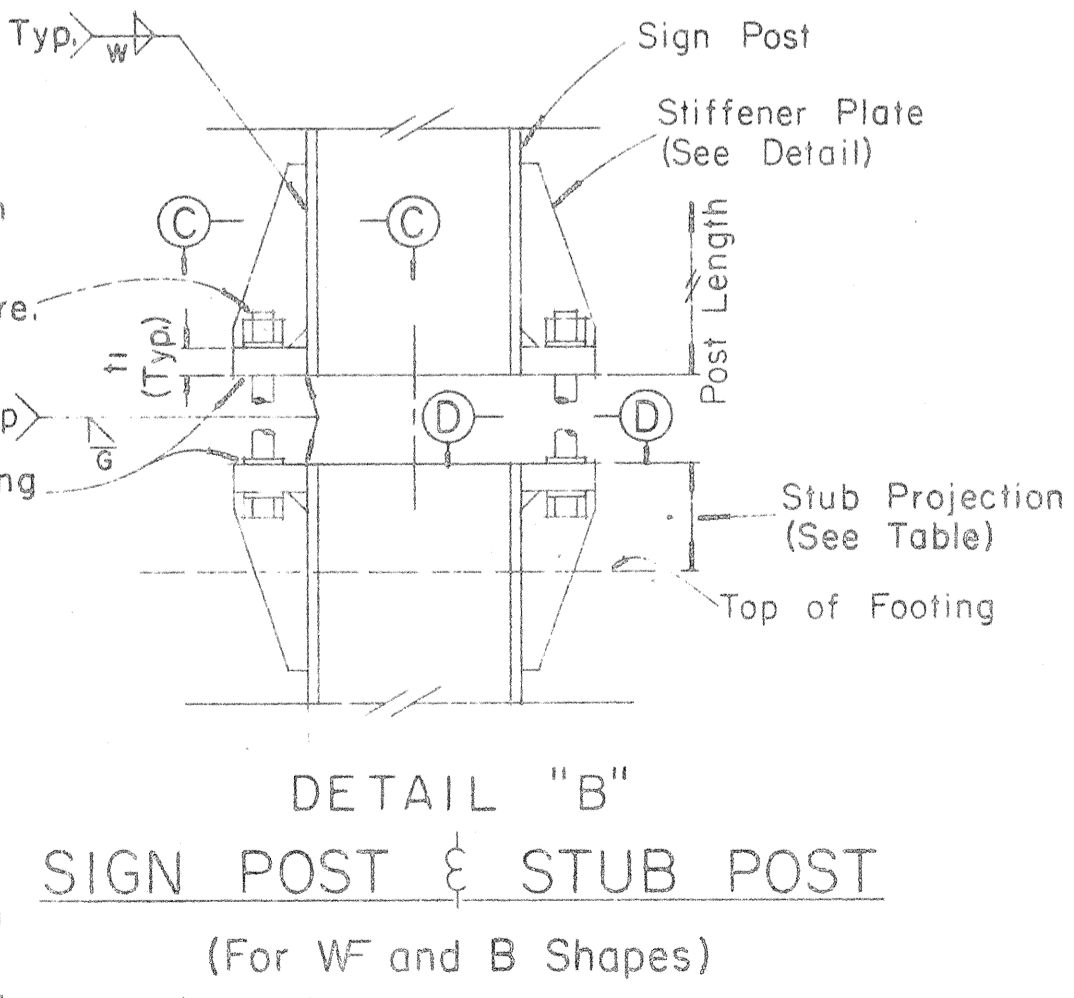
Not to Scale  
SHEET NO. 15 OF 12 SHEETS DT204

DATE  
DESIGNED BY  
CHECKED BY  
QUANTITIES BY  
NOTE BOOK  
No.



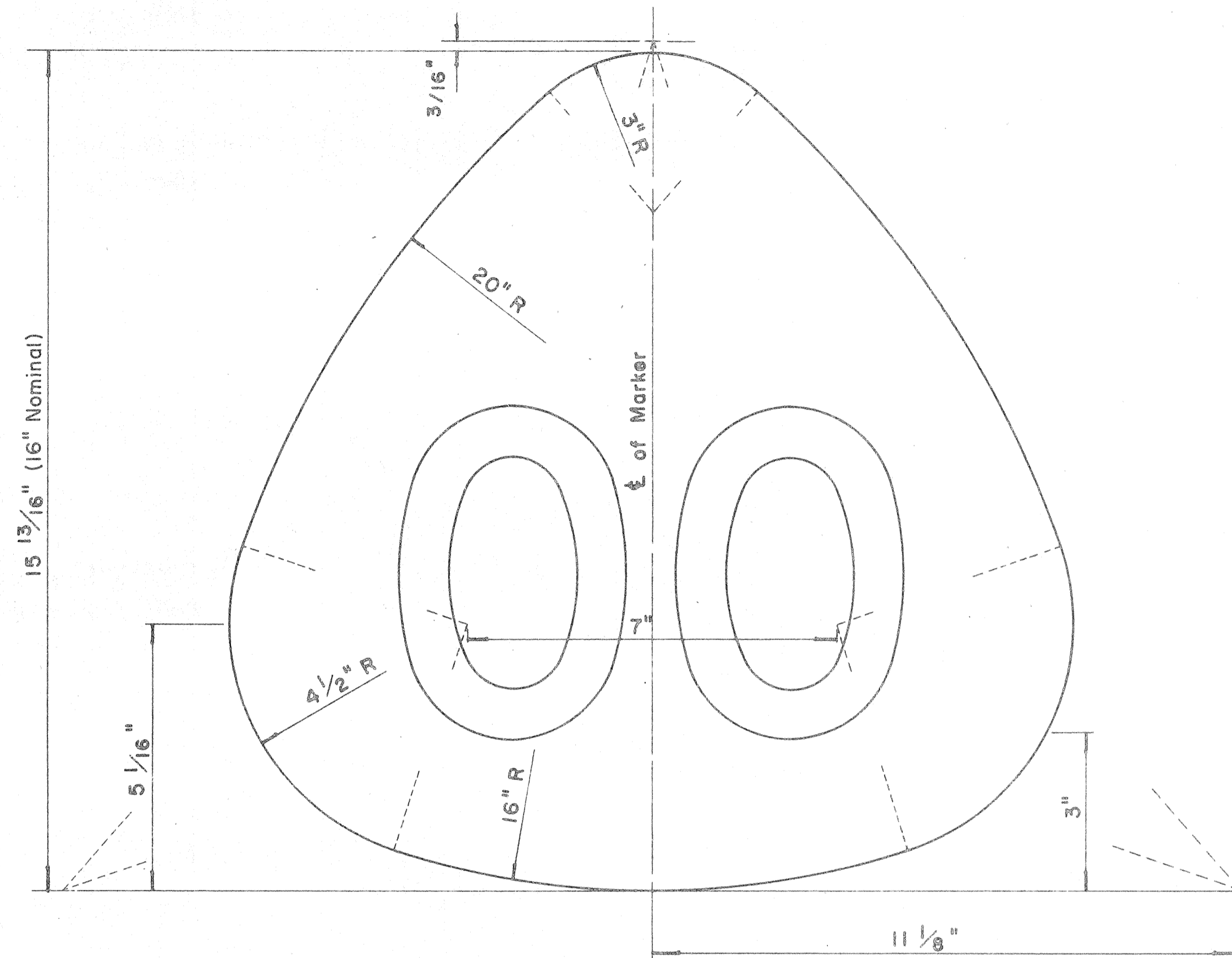
PROCEDURE FOR ASSEMBLY OF BASE CONNECTION:

- Assemble post to stub with bolts and with one flat washer on each bolt between plates.
- Shim as required to plumb post.
- Tighten all bolts the max. possible with 12" to 15" wrench to bed washers & shims and to clean bolt threads then loosen each bolt in turn & retighten bolts in systematic order to prescribed torque. (See Table)
- Burr threads at junction with nut using a center punch to prevent nut loosening.



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-11(10)45	1973	89	220

MARKER SIZE	MULTIPLY DIMENSIONS BY	NUMERAL SIZE
16"	1	6"
21"	1.3	8"
32"	2.0	12"
42"	2.63	16"



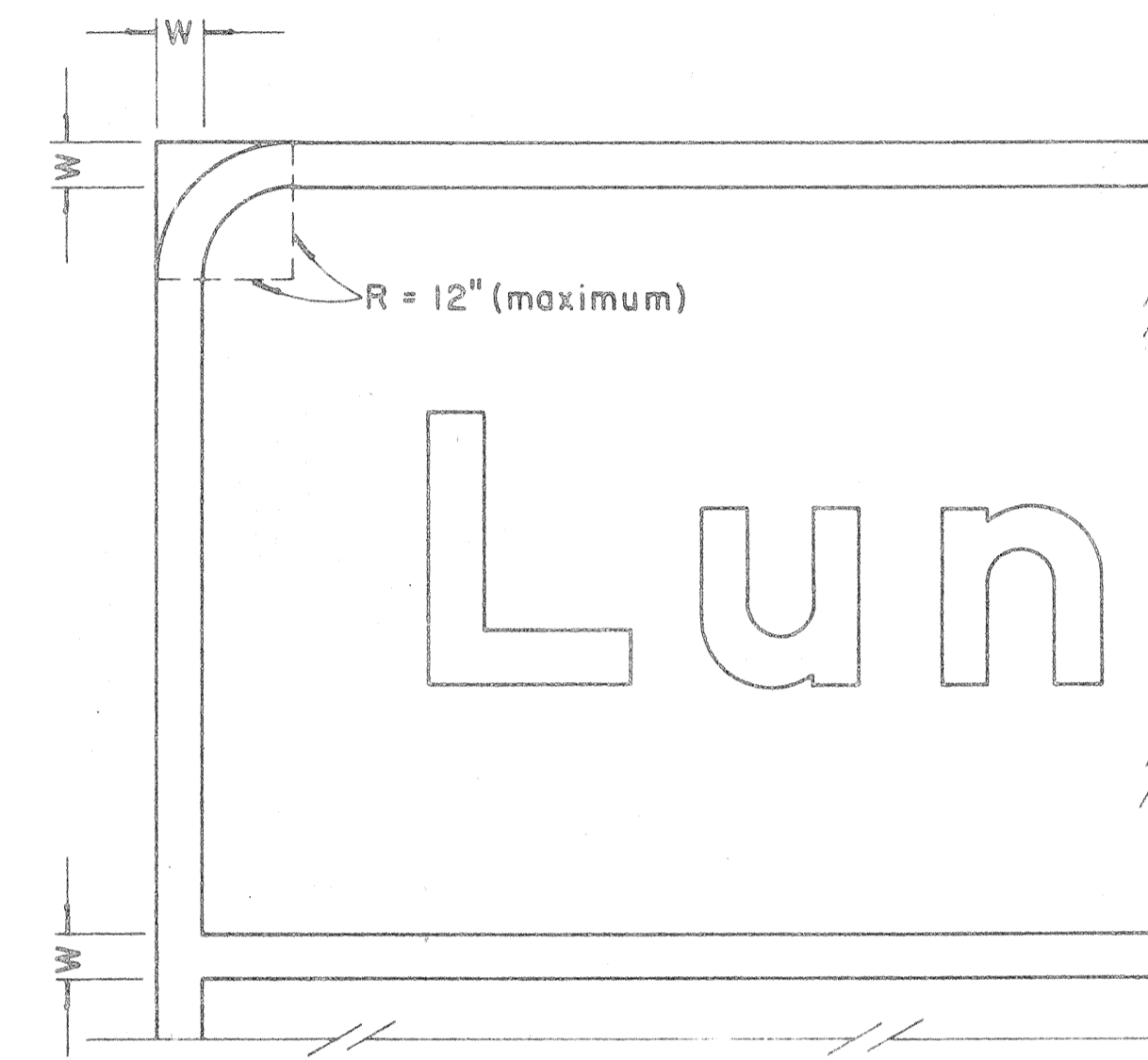
**STATE ROUTE MARKER  
FOR GUIDE SIGNS**

Scale: Half Size

**NOTE:**

1. State Route Markers on Guide signs shall have black numerals on a white reflectorized background mounted on a flat aluminum cut-out.
2. Numerals shall conform to the FHWA publication "Standard Alphabets for Highway Signs," 1966.
3. Cut-outs shall be fastened on sign panel with aluminum blind rivets. See Standard Specifications.
- \* 4. The 16" State Route Marker shall be used only with the Construction Identification sign.

RADI FOR SIGNS		
Least Dimension of Sign	W	R
2'-0" to 4'-6"	2"	3"
4'-9" to 5'-6"	2"	6"
5'-9" to 7'-6"	2"	9"
7'-9" and greater	2"	12"



**BORDER DETAIL  
FOR GUIDE SIGNS**

Not to Scale

**NOTE:**

1. Area outside corner radius need not be trimmed.
2. All borders shall be embossed cut-outs, white and reflectorized.
3. All Guide signs shall have borders.

APPROVAL RECOMMENDED:

*Euschi Tanaka* 4/11/72  
TRAFFIC ENGINEER DATE

APPROVED:

*Walter S. Sakishi* 4/12/72  
ASSISTANT CHIEF, ENGINEERING DATE

NO	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 209 Approved 12-30-69	H.C.	4/12/72

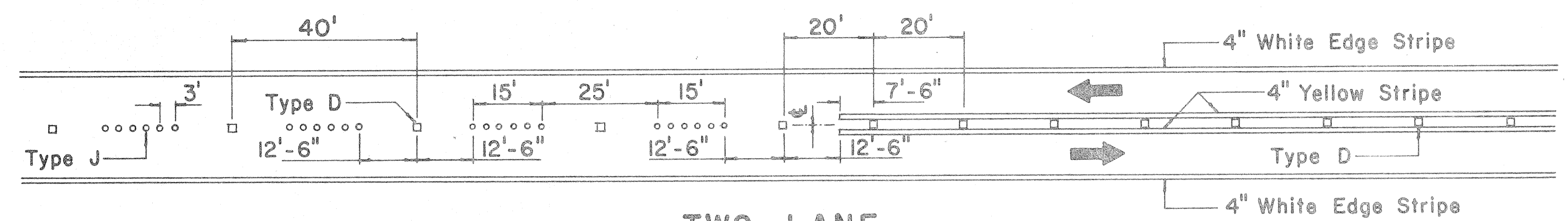
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STANDARD DETAILS**  
**STATE ROUTE MARKER  
AND BORDER DETAIL  
FOR GUIDE SIGNS**

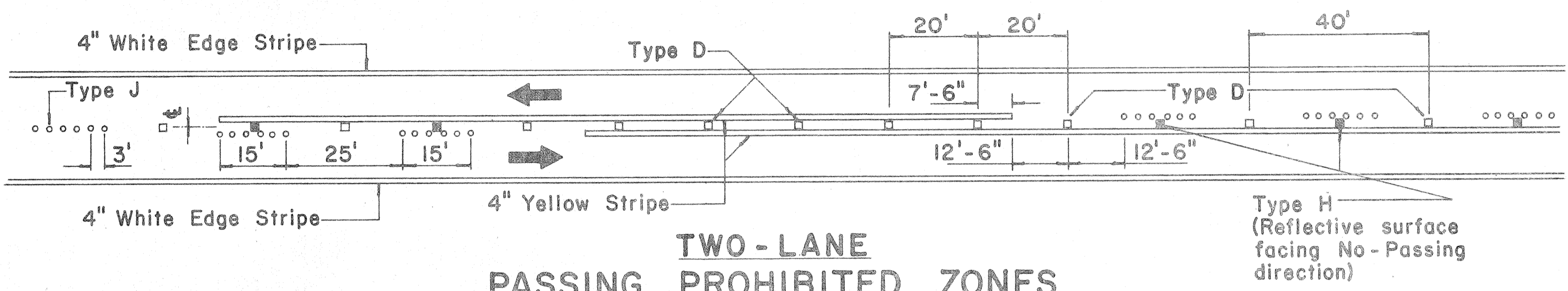
Scale: As Shown  
SHEET No. 16 OF 19 SHEETS DT 209

DESIGNED BY	DATE
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

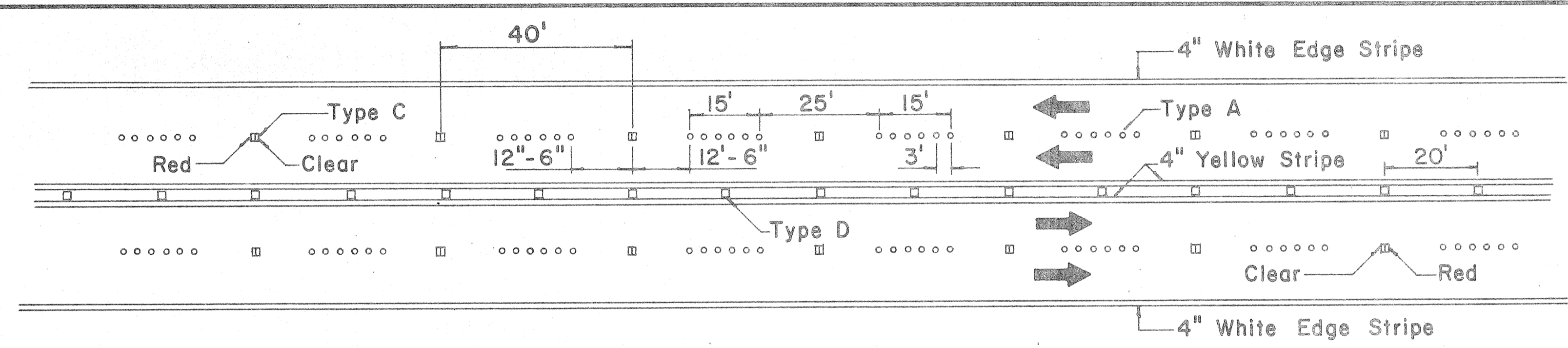
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(10)-15	1973	90	220



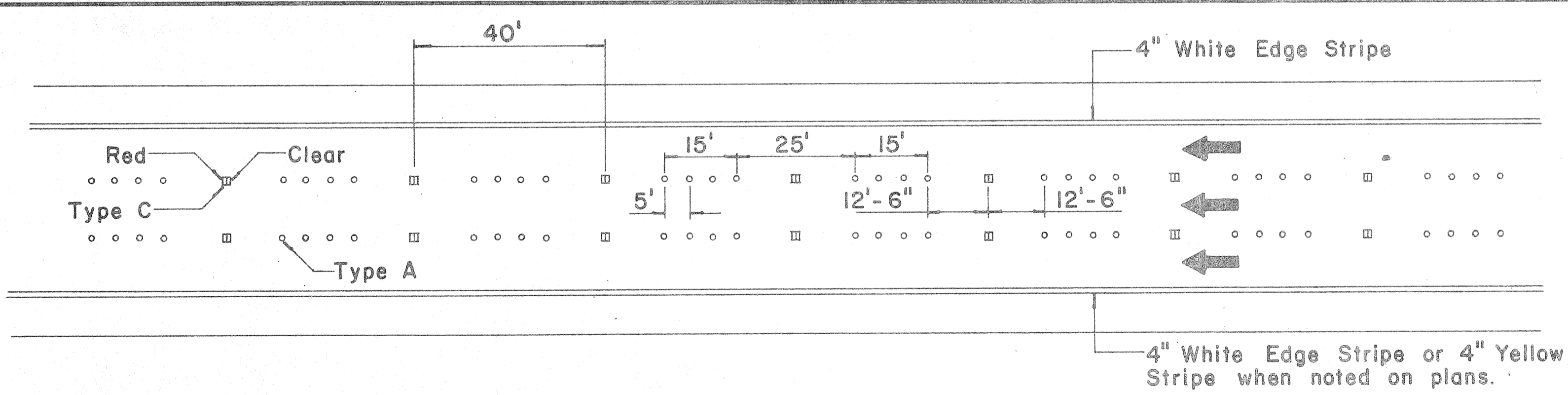
**TWO-LANE  
PASSING PERMITTED AND PASSING PROHIBITED**



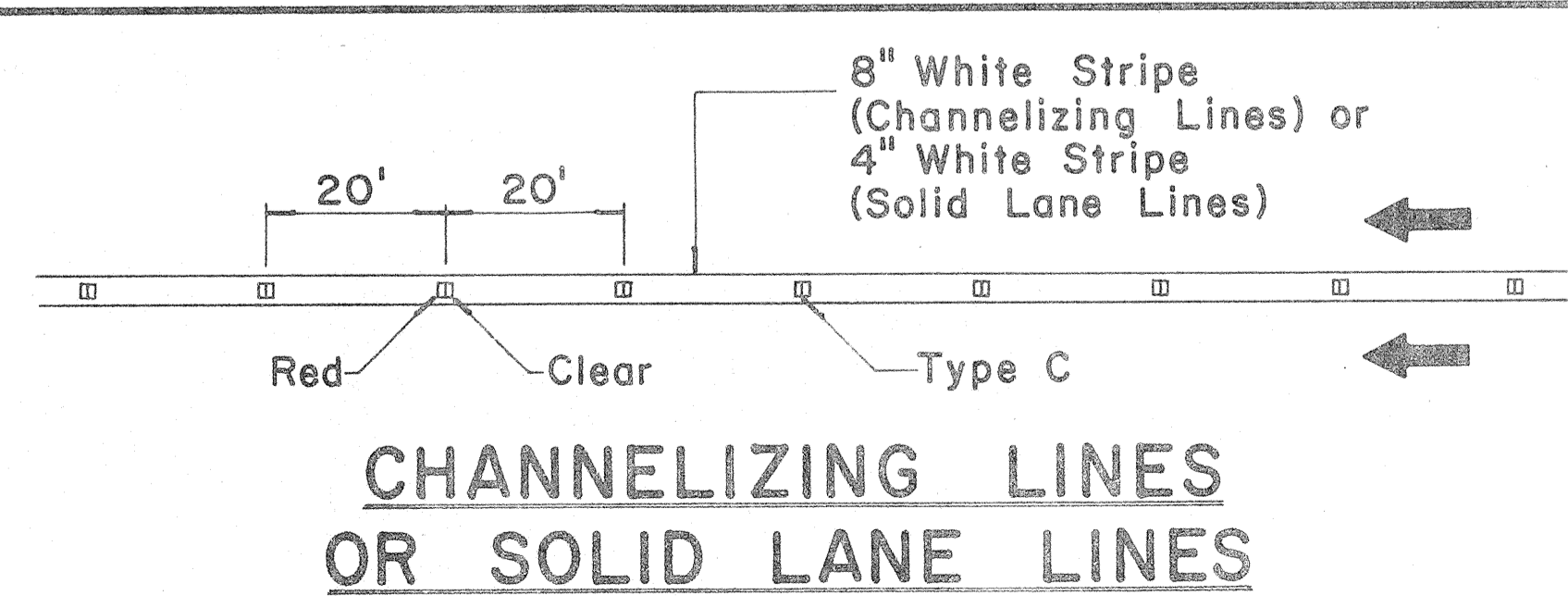
**TWO-LANE  
PASSING PROHIBITED ZONES**



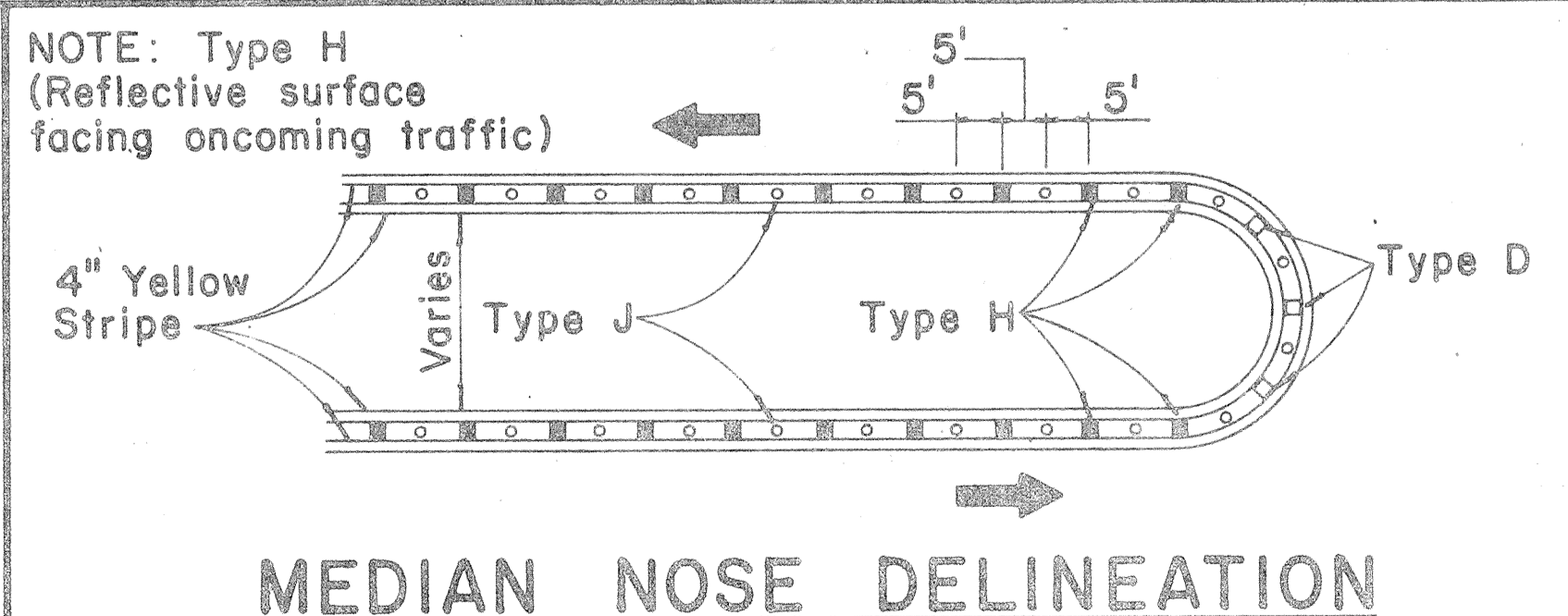
**MULTI-LANE  
LANE LINES AND CENTER LINE**



**FREEWAY LANE LINES**



**CHANNELIZING LINES  
OR SOLID LANE LINES**



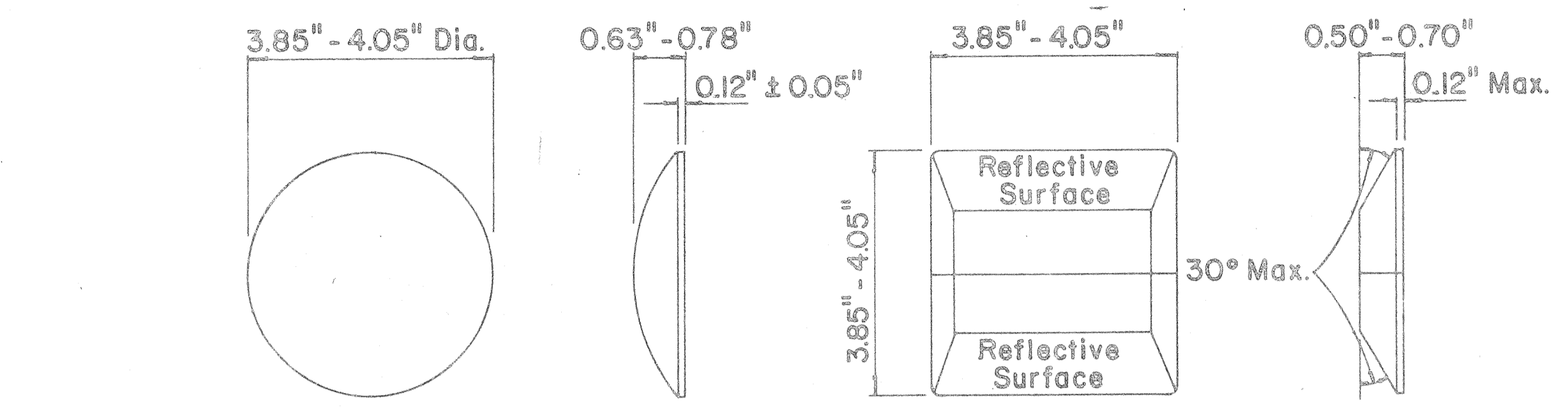
**MEDIAN NOSE DELINEATION**

TWO - LANE

MULTI - LANE

FREEWAY

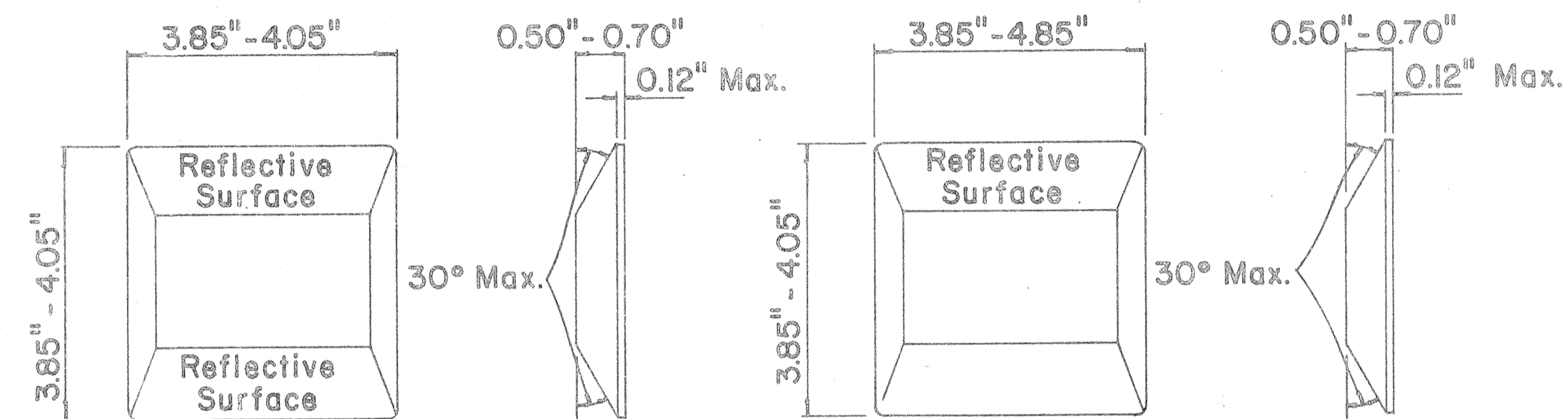
MISCELLANEOUS



**TYPE A  
NON-REFLECTIVE WHITE MARKER**

**TYPE C  
RED-CLEAR REFLECTIVE MARKER**

**TYPE J  
NON-REFLECTIVE YELLOW MARKER**



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

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

**GENERAL NOTES**

1. Painted stripes to be done by State forces unless otherwise specified.
2. FOR PEARL HARBOR INTERCHANGE PROJECT ONLY MULTI-LANE MARKER LAYOUT TO BE USED FOR RAMP LANES.

APPROVAL RECOMMENDED:  
*Eiichi Tanaka* 11/18/71  
TRAFFIC ENGINEER DATE

APPROVED:  
*Shelton Sakovich* 11/18/71  
ASSISTANT CHIEF, ENGINEERING DATE

No.	REVISION	APPROVED BY	DATE
1	Add reflector marker in each line gap.	H.C.	10-21-72
2	Revised General Notes.	H.C.	10-21-72

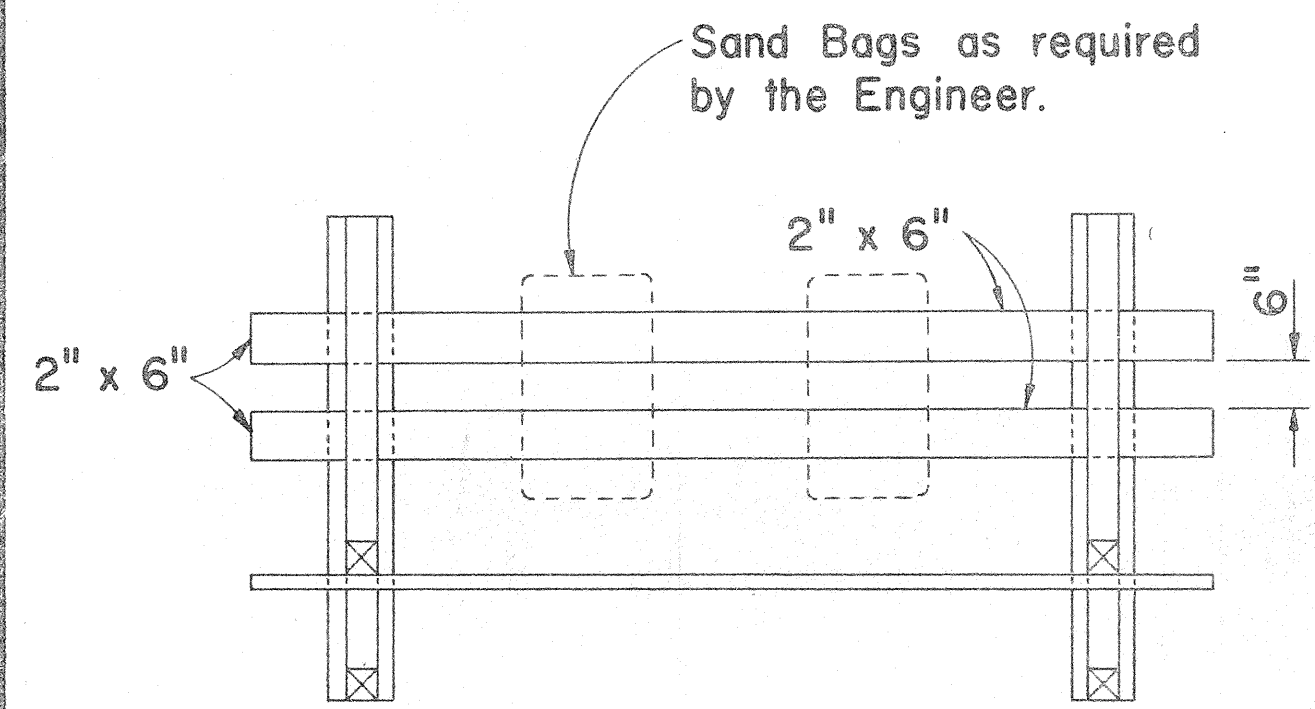
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STANDARD DETAILS  
RAISED PAVEMENT MARKERS**

Not to Scale October 1971  
SHEET No. 17 OF 19 SHEETS DT 300

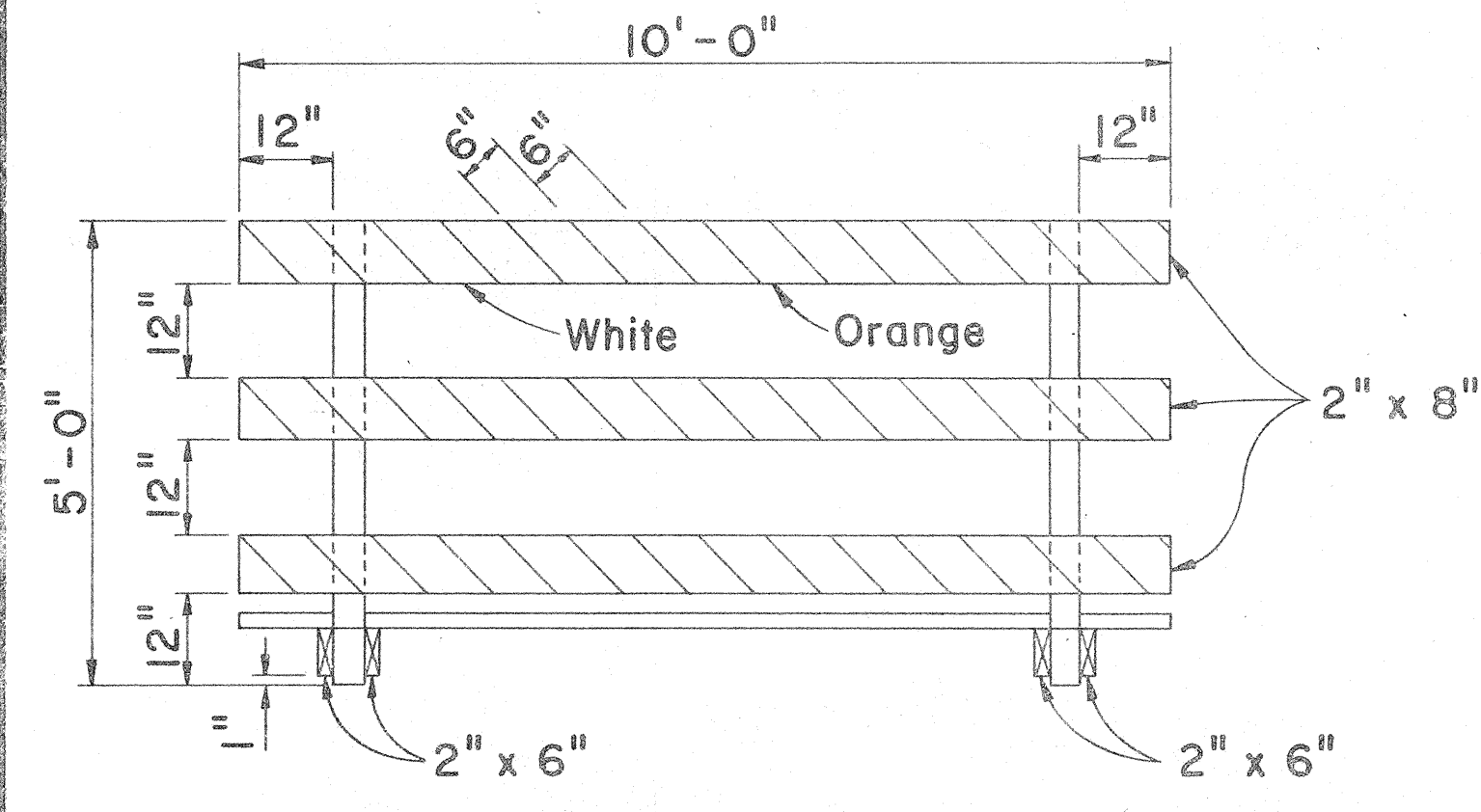
SURVEY PLOTTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PLAN TRACED BY: \_\_\_\_\_  
 ORIGINAL NOTE BOOK DESIGNED BY: \_\_\_\_\_  
 QUANTITIES BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 No. \_\_\_\_\_

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-11(10)-15	1973	91	220



PLAN VIEW

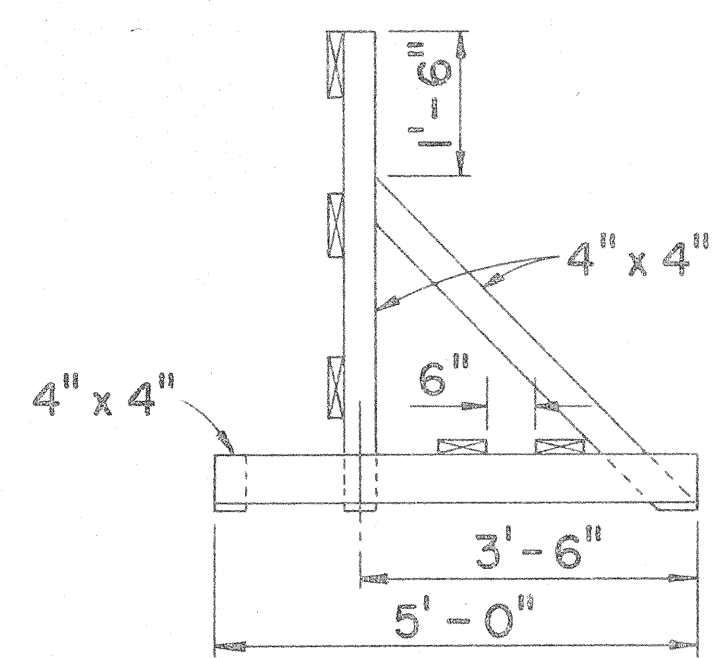
- GENERAL NOTES**
1. The Contractor shall construct, install and maintain the wood barricades at the locations shown on the Plans.
  2. The permanent wood barricades shall be left in place or relocated upon completion of the project as ordered by the Engineer and are to become State property.
  3. The orange and white stripes shall slant downward toward the side on which traffic is to pass and shall be reflectorized.



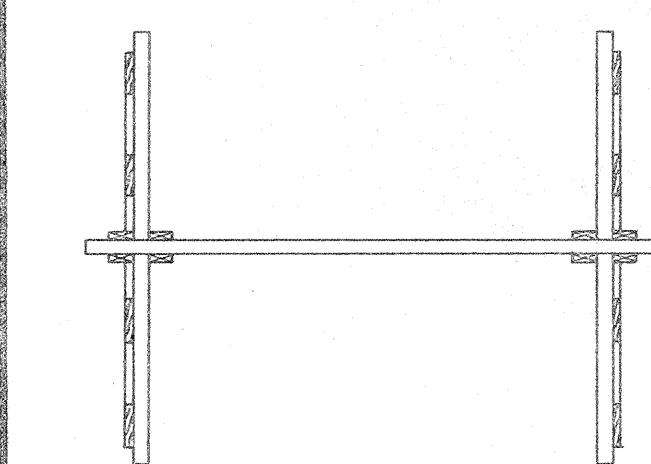
FRONT VIEW

**CLASS I BARRICADE**

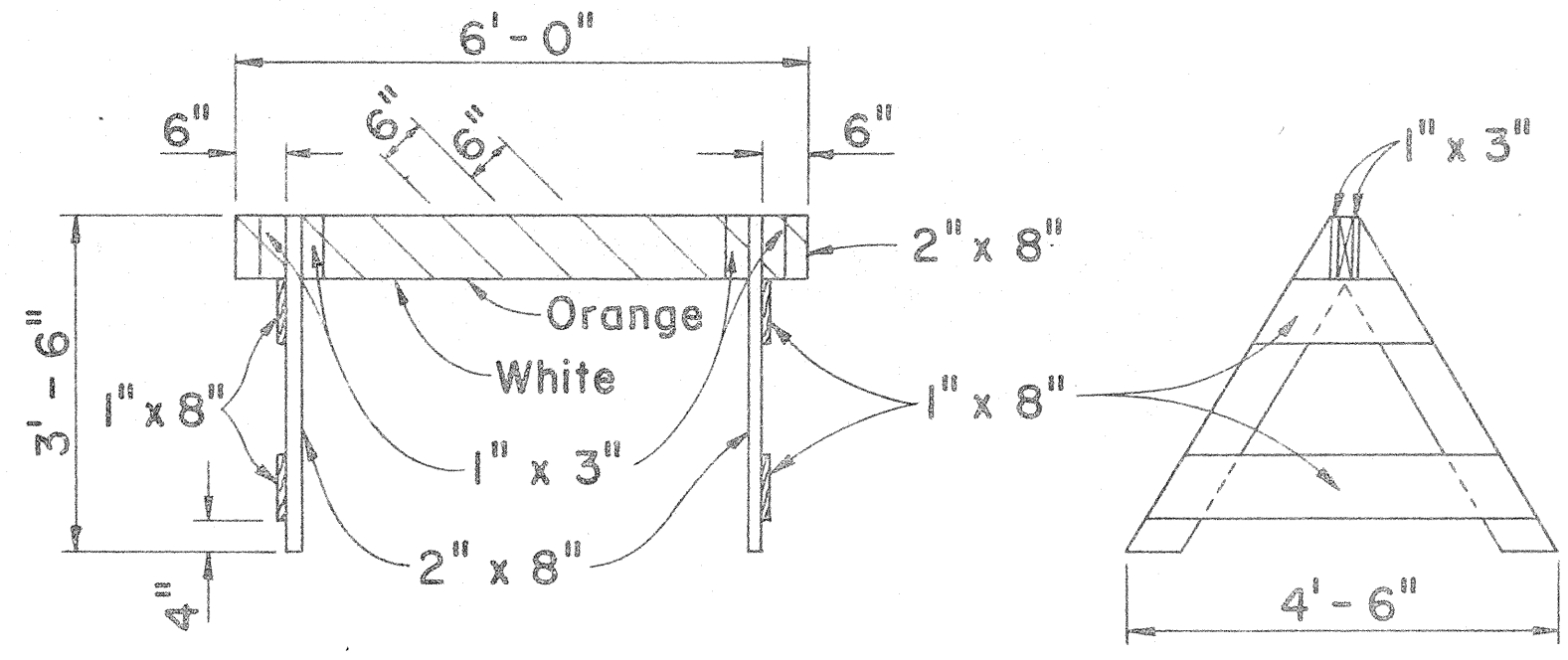
Scale: 1/2" = 1'-0"



END VIEW



PLAN VIEW

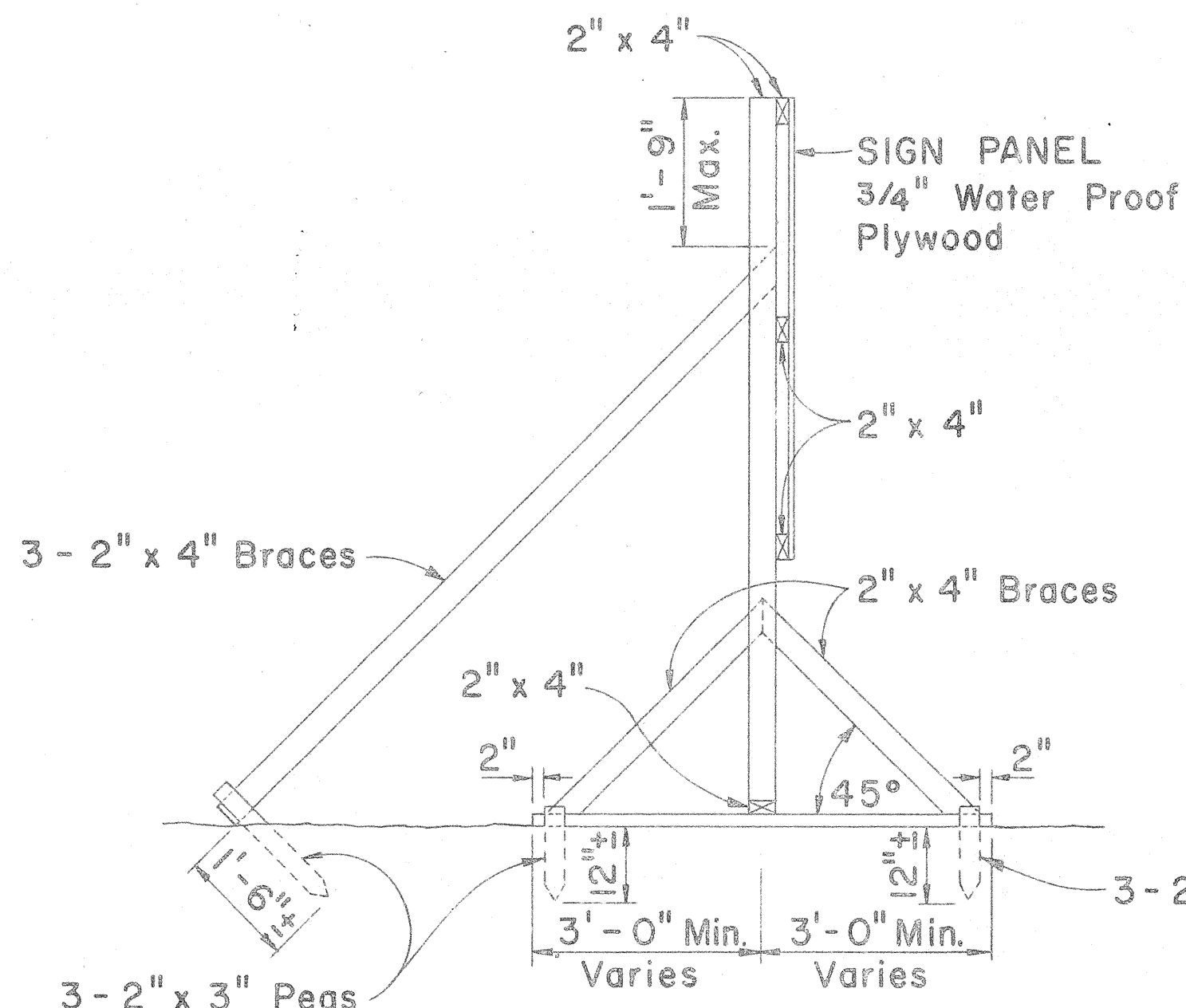


FRONT VIEW

END VIEW

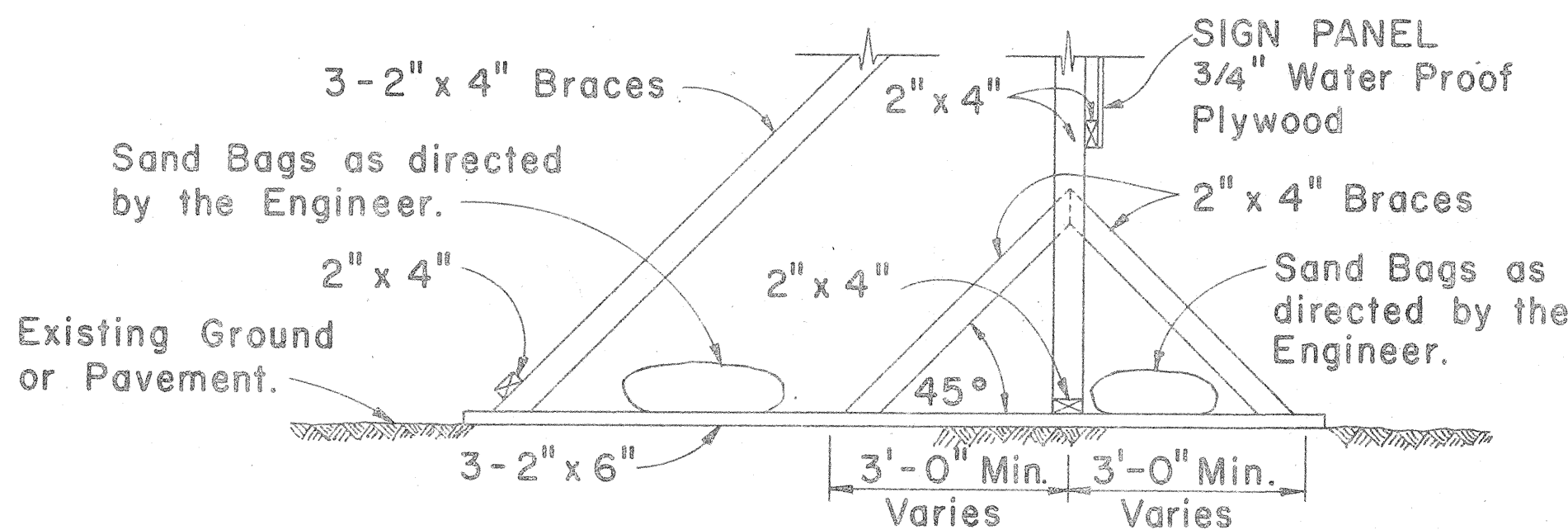
**CLASS II BARRICADE**

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



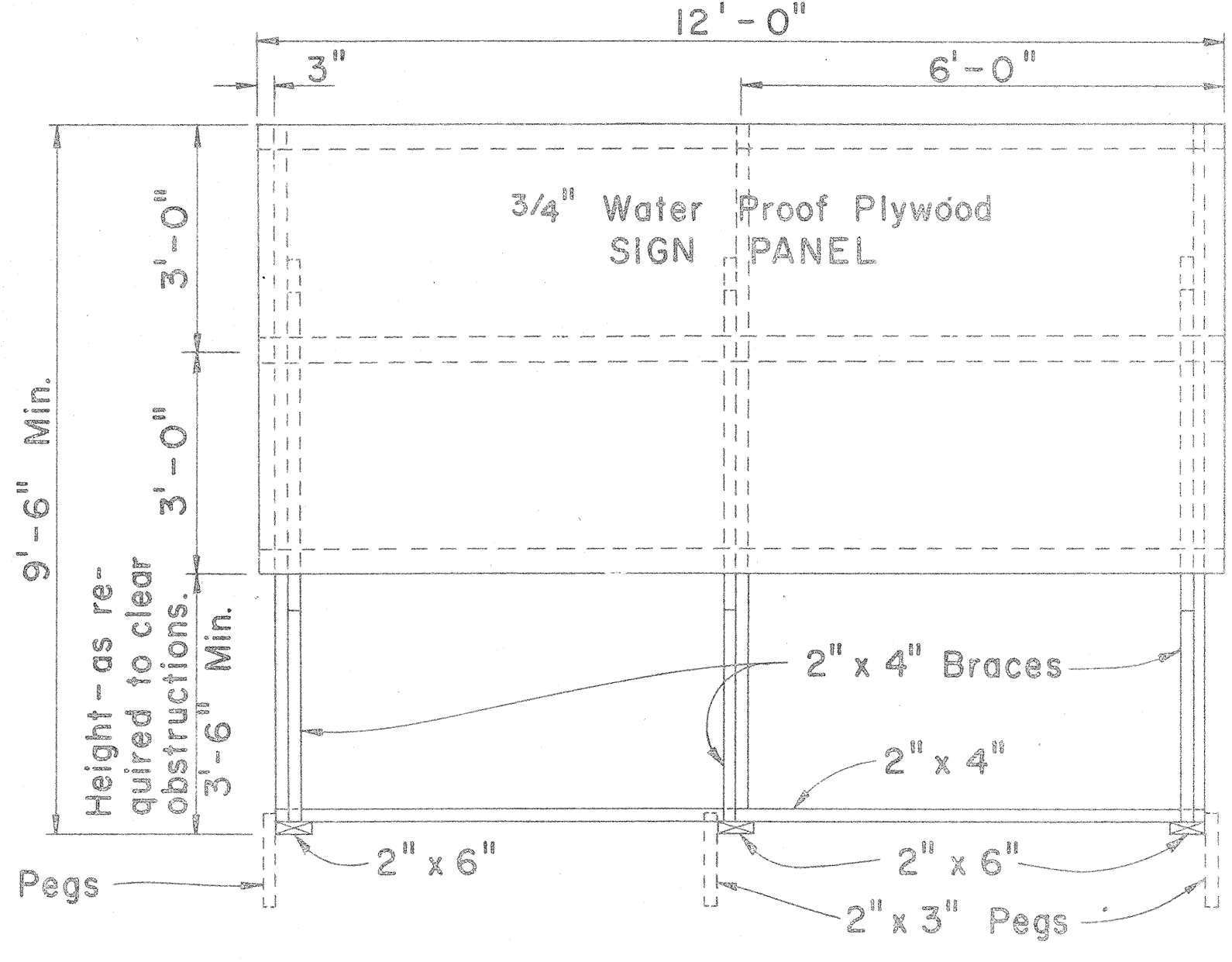
SIDE VIEW

(SIGN FRAME ANCHORED IN GROUND)  
Scale: 1/2" = 1'-0"



SIDE VIEW

(SIGN FRAME WEIGHTED DOWN)  
Scale: 1/2" = 1'-0"



FRONT VIEW

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

**GENERAL NOTES**

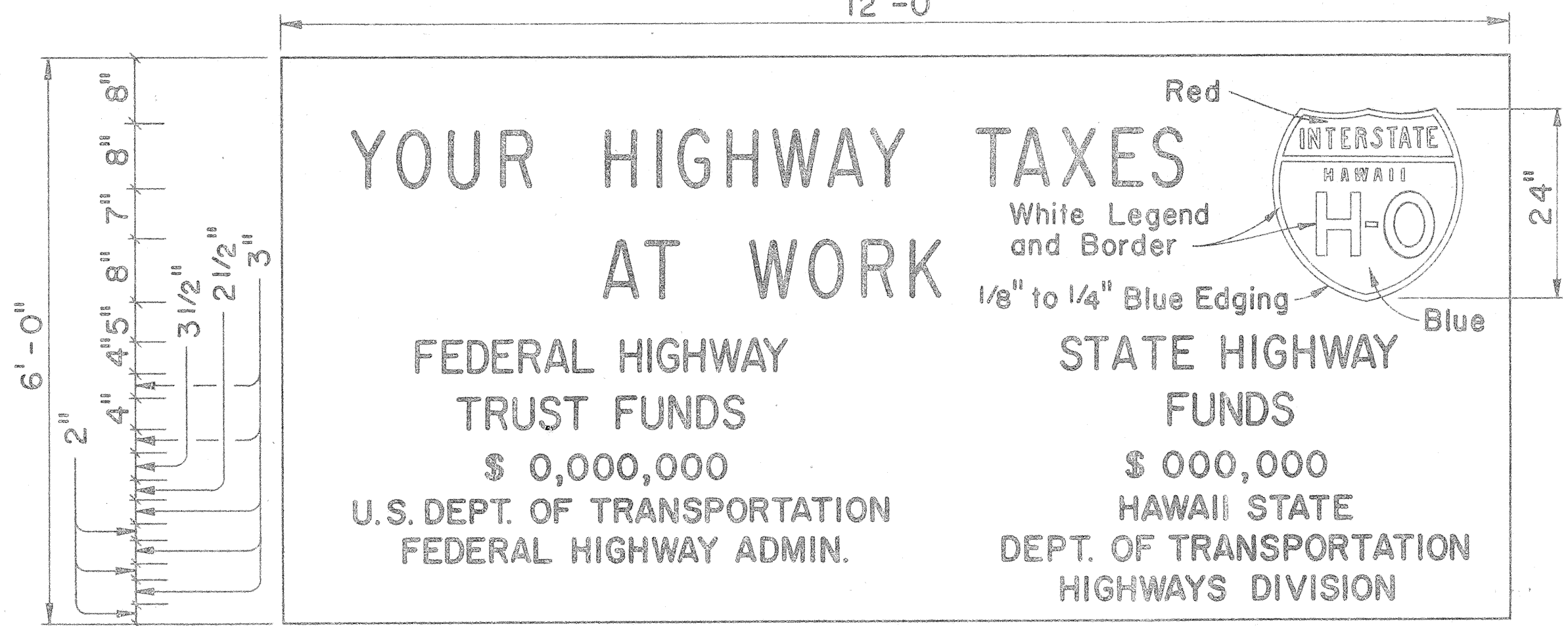
1. The sign legend shall be black on white background except for the Interstate Route marker which shall be as shown on the plan.
2. The Contractor shall construct, install and maintain the project signs at the locations shown on the Plans and as ordered by the Engineer.
3. Letters shall be Series "C" of the sizes shown on the Plan and shall conform with the "Standard Alphabet for Highway Signs", Bureau of Public Roads, 1966.
4. The Contractor shall fill in the proper numerals in place of ciphers as ordered by the Engineer.

APPROVAL RECOMMENDED:

*Eiichi Tanaka* 12/29/69  
TRAFFIC ENGINEER DATE

APPROVED:

*Arthur S. Schaefer* 12-30-69  
ASSISTANT CHIEF, ENGINEERING DATE



SIGN PANEL

Scale: 3/4" = 1'-0"

**INTERSTATE SYSTEM CONSTRUCTION IDENTIFICATION SIGN**

Scale: As Shown

NO	REVISION	APPROVED BY	DATE
1	Reduce sign width to 12'-0"	H.T.	9-5-10
2	Delete "Bureau of Public Roads"	H.T.	9-29-70
3	Add Note No.3 for Barricades	H.T.	5-4-71
4	Revise stripe color for Barricades	H.T.	10-27-12

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

**TYPICAL DETAILS**

CONSTRUCTION IDENTIFICATION SIGN AND WOOD BARRICADES

SCALE: As Shown DATE:

DATE: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
SCALE: \_\_\_\_\_  
SHEET NO.: \_\_\_\_\_

