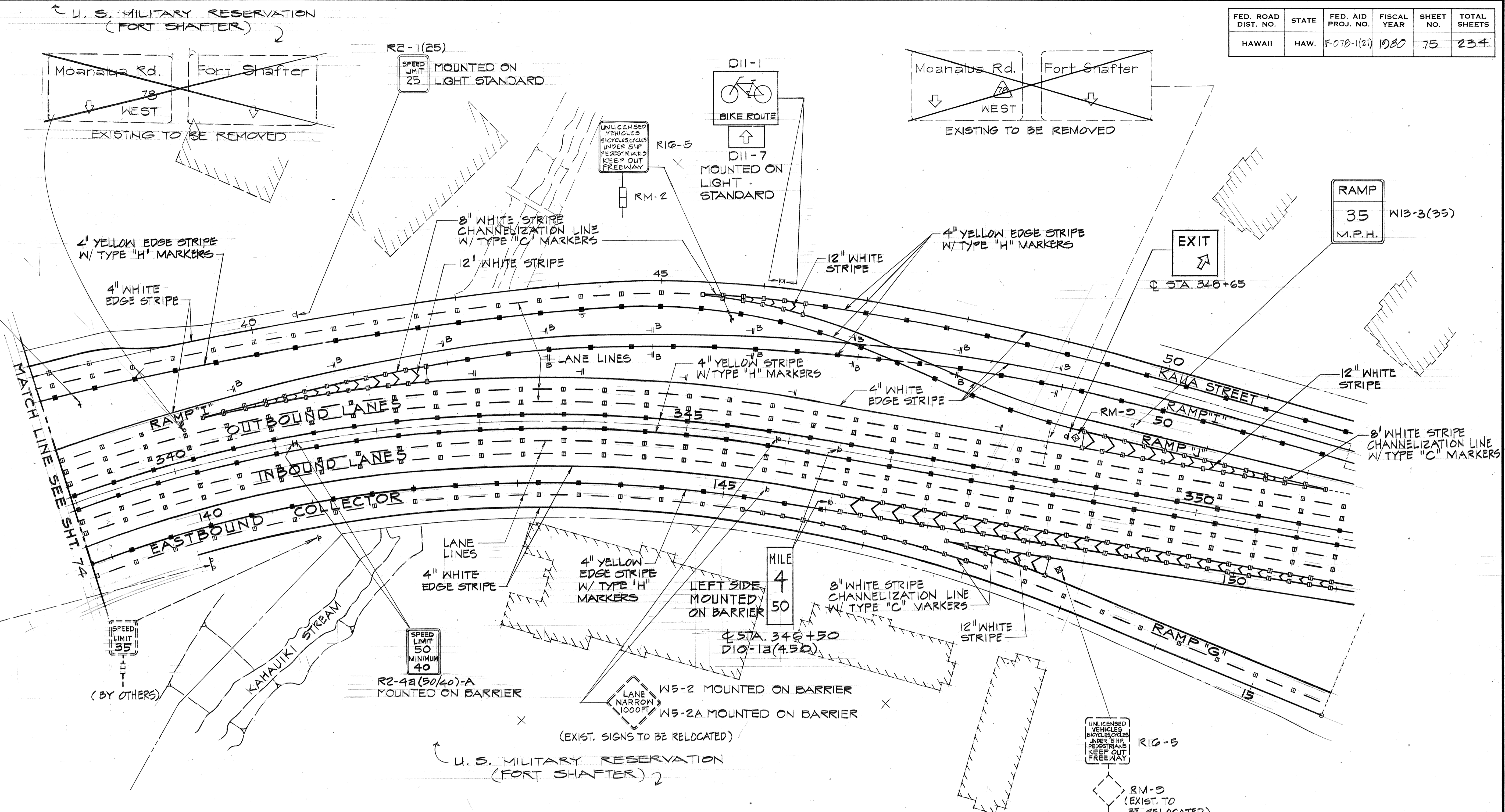
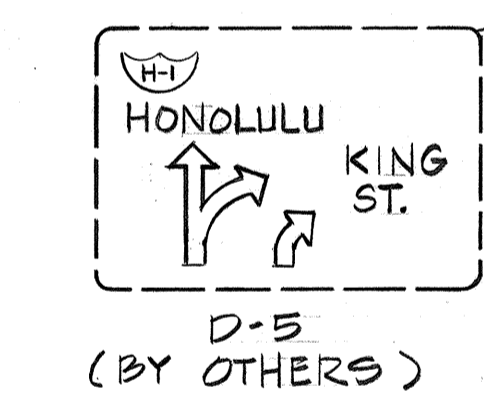
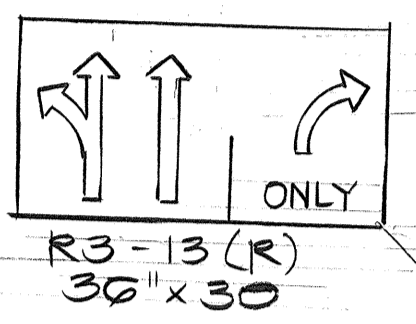


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-07B-1(21)	1980	75	234

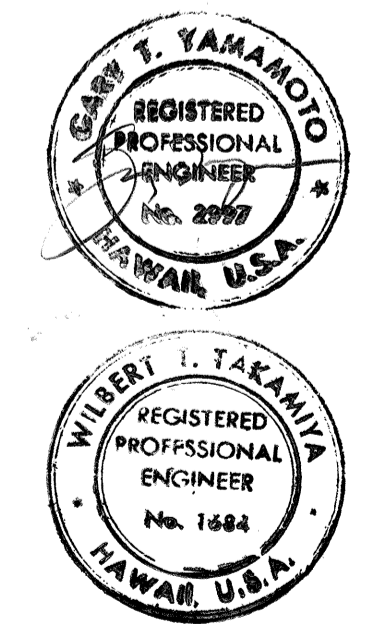
TRUE NORTH
SCALE: 1" = 50'



NOTE:
FOR EXIT SIGN, NUMBER IS NOT REQUIRED.

PLAN
Scale: 1" = 50'

DATE	REVISION
4/8/81	DELETED BUS & CAR POOL LANE SIGNS AND PAVEMENT DIAMOND STRIPES AND ADDED NOTE FOR EXIT SIGN.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING AND PAVEMENT MARKING PLAN

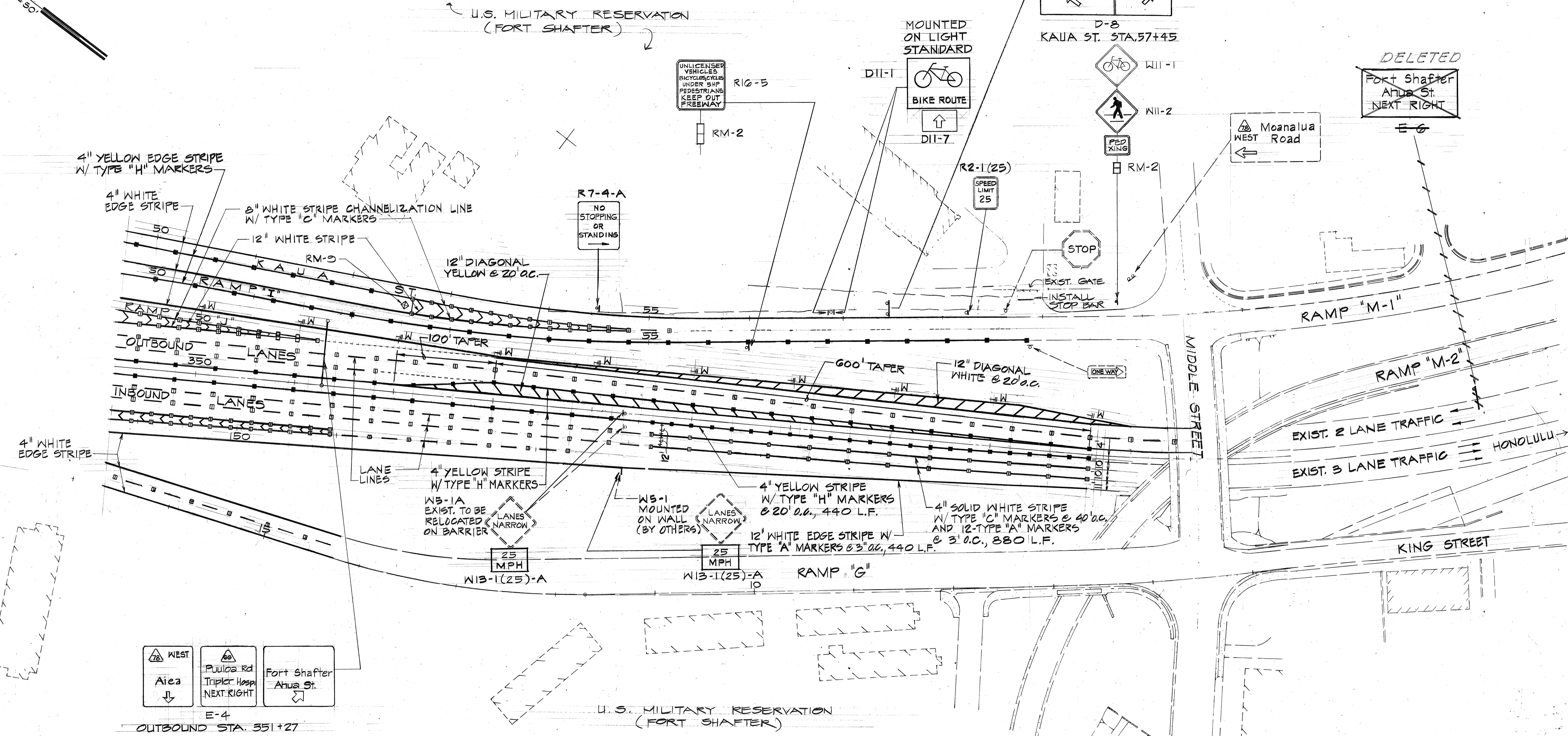
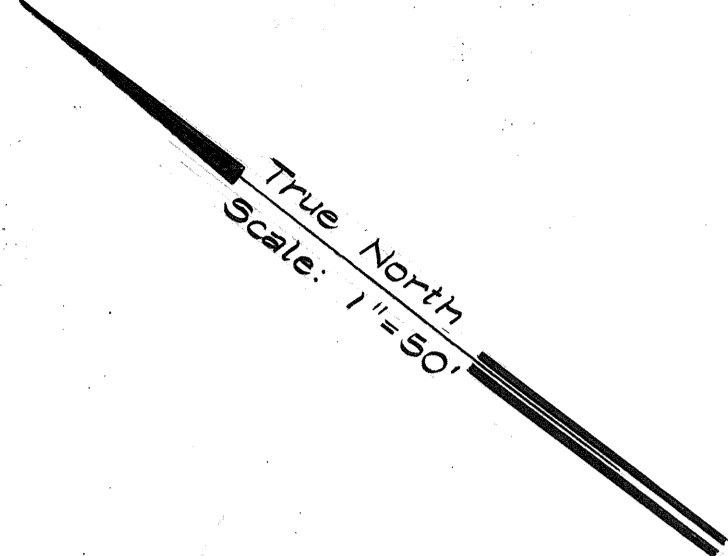
MOANALUA ROAD
PUULOLOA I.C. TO MIDDLE ST. - UNIT 3
F.A. Proj. No. F-07B-1(21)

SCALE: AS SHOWN DATE: AUG. 1, 1979
SHEET NO. 2 OF 3 SHEETS

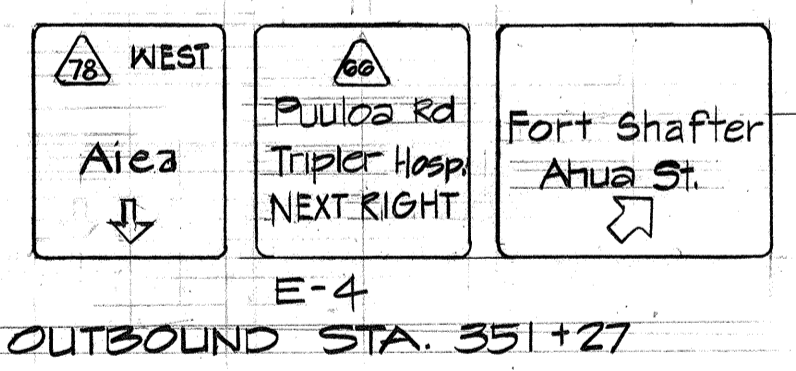
ADD 75

SURVEY PLOTTED BY	DATE
TRACED BY	
DESIGNED BY	
CHECKED BY	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(21)	1980	76	234

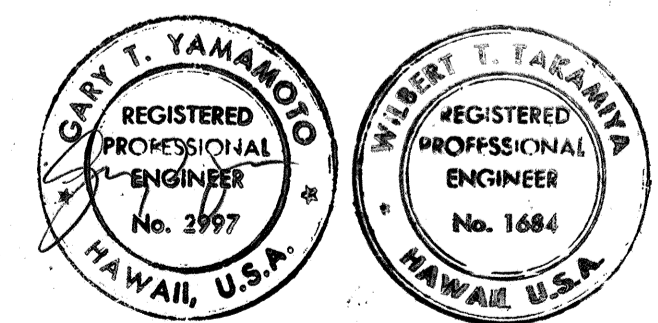


DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



PLAN
Scale: 1"=50'

DATE	4/8/81	REVISION	DELETED RESTRICTED LANE SIGNS, BUS & CAR POOL LANE SIGNS AND PAVEMENT DIAMOND STRIPES.
DATE		REVISION	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING AND PAVEMENT MARKING PLAN

MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST. - UNIT 3
P.A. Proj. No. F-078-1(21)

SCALE: AS SHOWN DATE: AUG. 1, 1979
SHEET NO. 3 OF 3 SHEETS

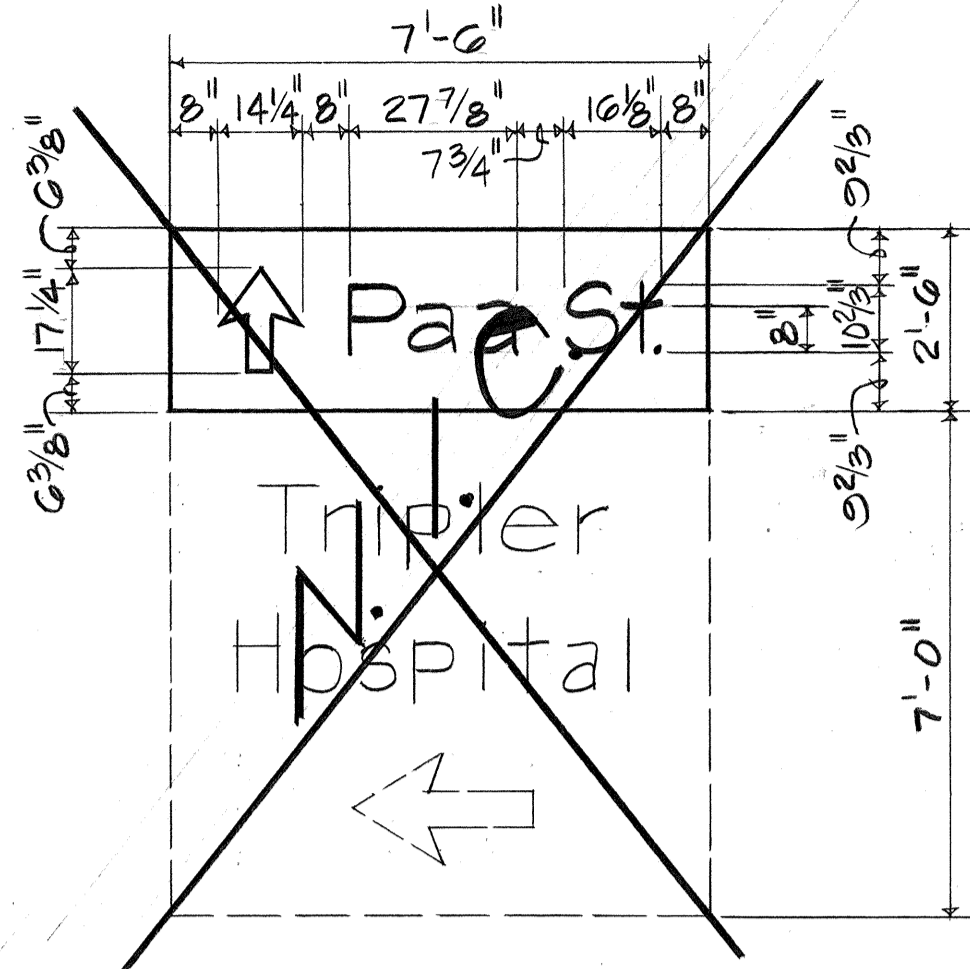
ADD 76

GENERAL NOTES :

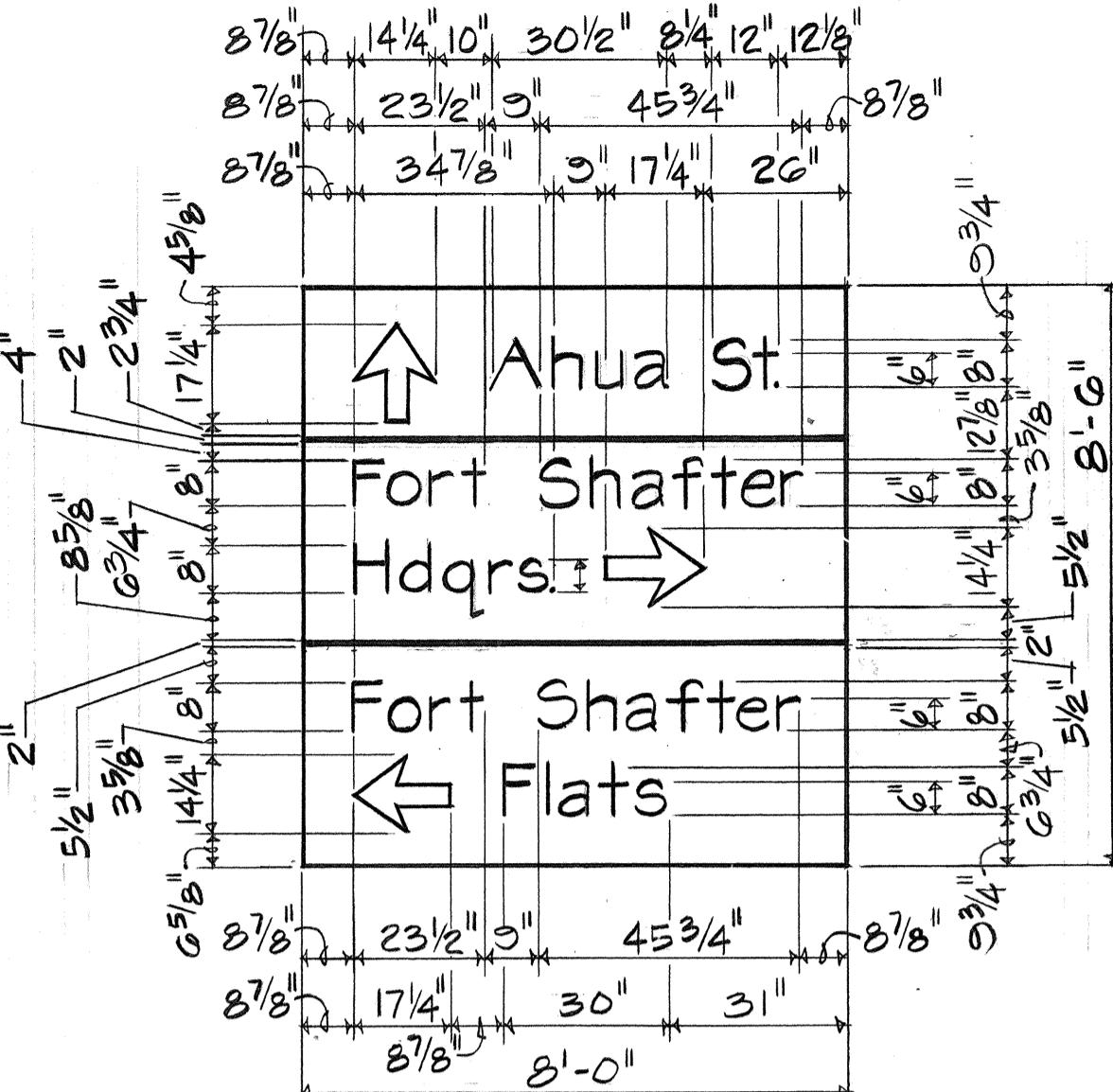
- LETTERS SHALL CONFORM TO THE MODIFIED SERIES "E" LETTERS SHOWN IN THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS," BUREAU OF PUBLIC ROADS, 1966.
- ARROWS, BORDERS AND ROUTE MARKERS SHALL CONFORM WITH DETAILS AS SHOWN ON PLANS.
- LETTERS, NUMERALS, SYMBOLS AND BORDERS SHALL BE DEMOUNTABLE ALUMINUM CUT-OUTS WITH WHITE REFLECTIVE SHEETING OR CLEAR REFLEX REFLECTORS, AND SHALL BE FASTENED ON THE SIGN PANEL WITH BLIND RIVETS, SEE SPECIAL PROVISIONS.
- EXPRESSWAY SIGNS (E) SHALL HAVE EITHER WHITE REFLECTIVE SHEETING ON ALUMINUM CUT-OUTS OR CLEAR REFLEX REFLECTORS SET IN WHITE PORCELAIN ENAMELED ALUMINUM CUT-OUTS. BACKGROUND FOR THE EXPRESSWAY SIGNS SHALL BE GREEN PORCELAIN ENAMEL.
- DESTINATION SIGNS (D) SHALL HAVE WHITE REFLECTIVE SHEETING ON ALUMINUM CUT-OUTS ON GREEN REFLECTIVE SHEETING BACKGROUND.

- SEE SHEET 80 TO 82 FOR OVERHEAD SIGN SUPPORTS AND DETAILS.
- PROVIDE INSULATION BETWEEN ALL DISSIMILAR METALS.
- EXCEPTIONS TO NOTES 3 & 4 OR AS FOLLOWS :
 2. BUS-CAR POOLS EXPRESSWAY SIGNS SHALL HAVE BLACK LEGENDS, BORDERS, AND ARROWS ON WHITE REFLECTIVE SHEETING BACKGROUND.

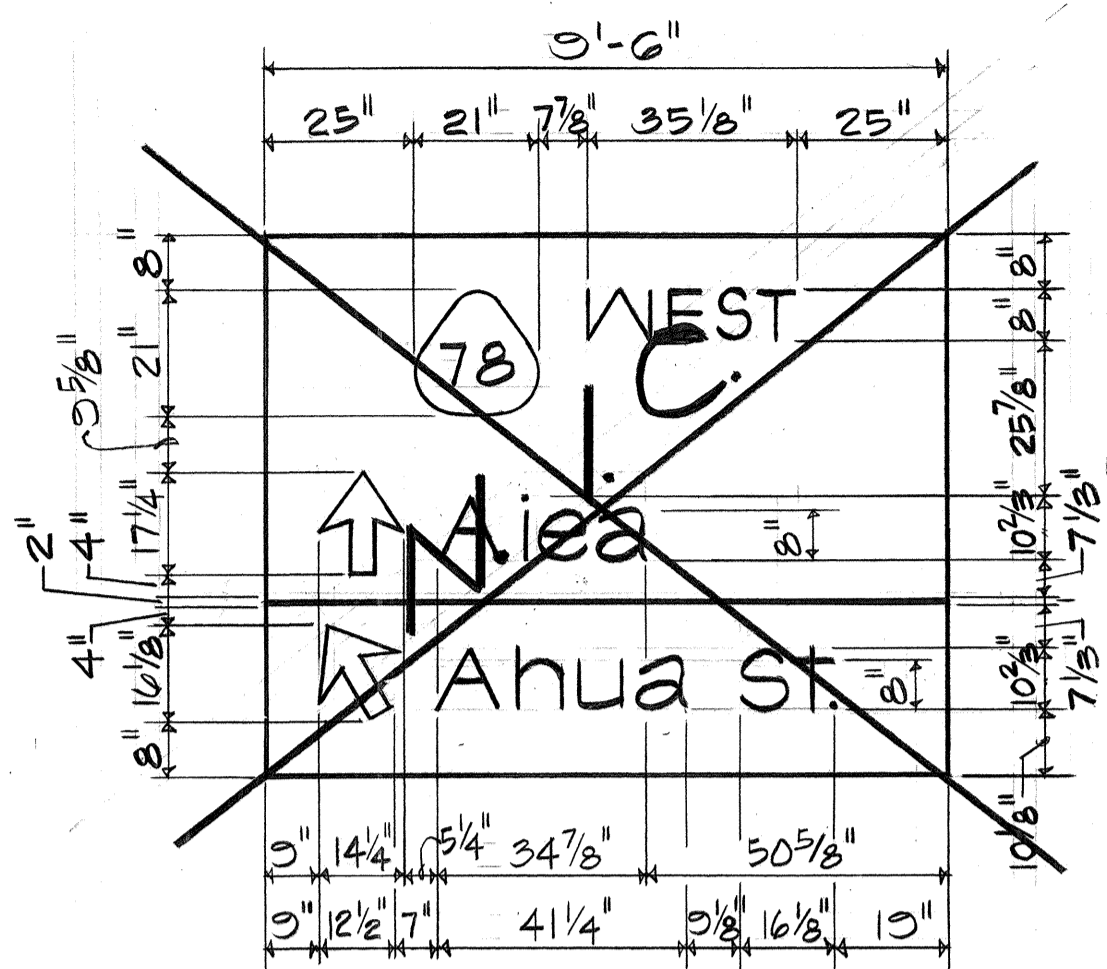
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(21)	1980	77	234



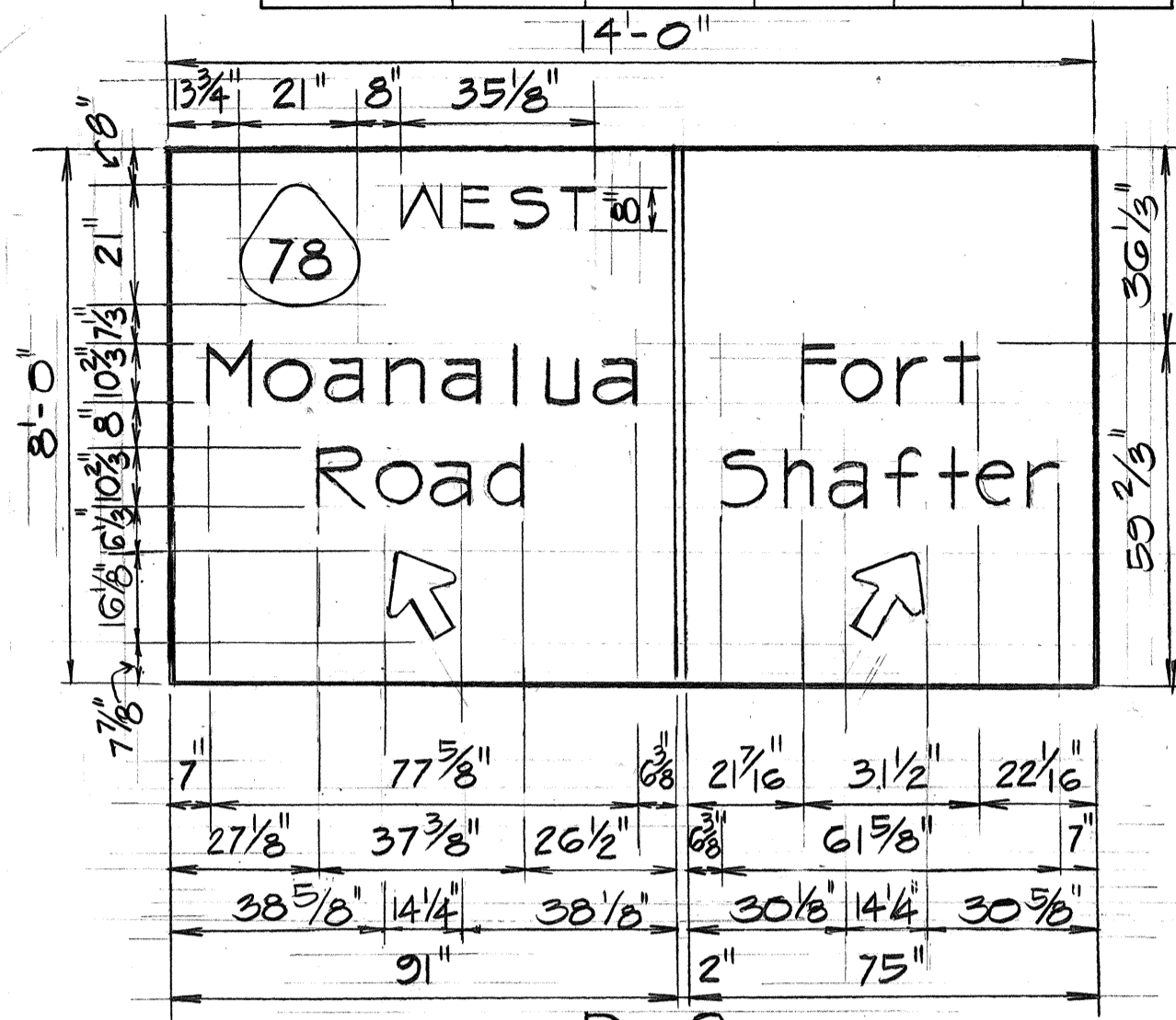
D-01



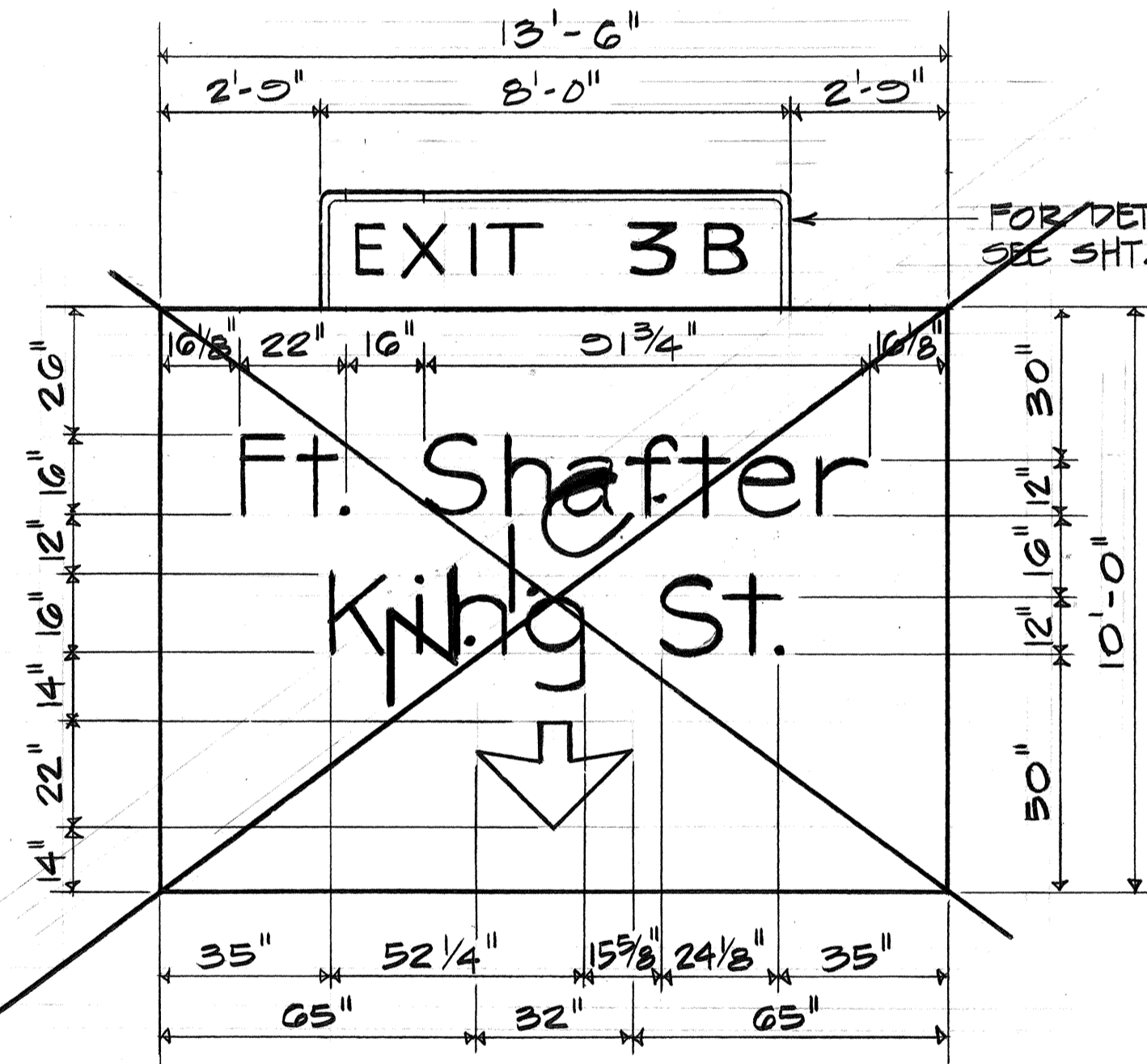
D-4



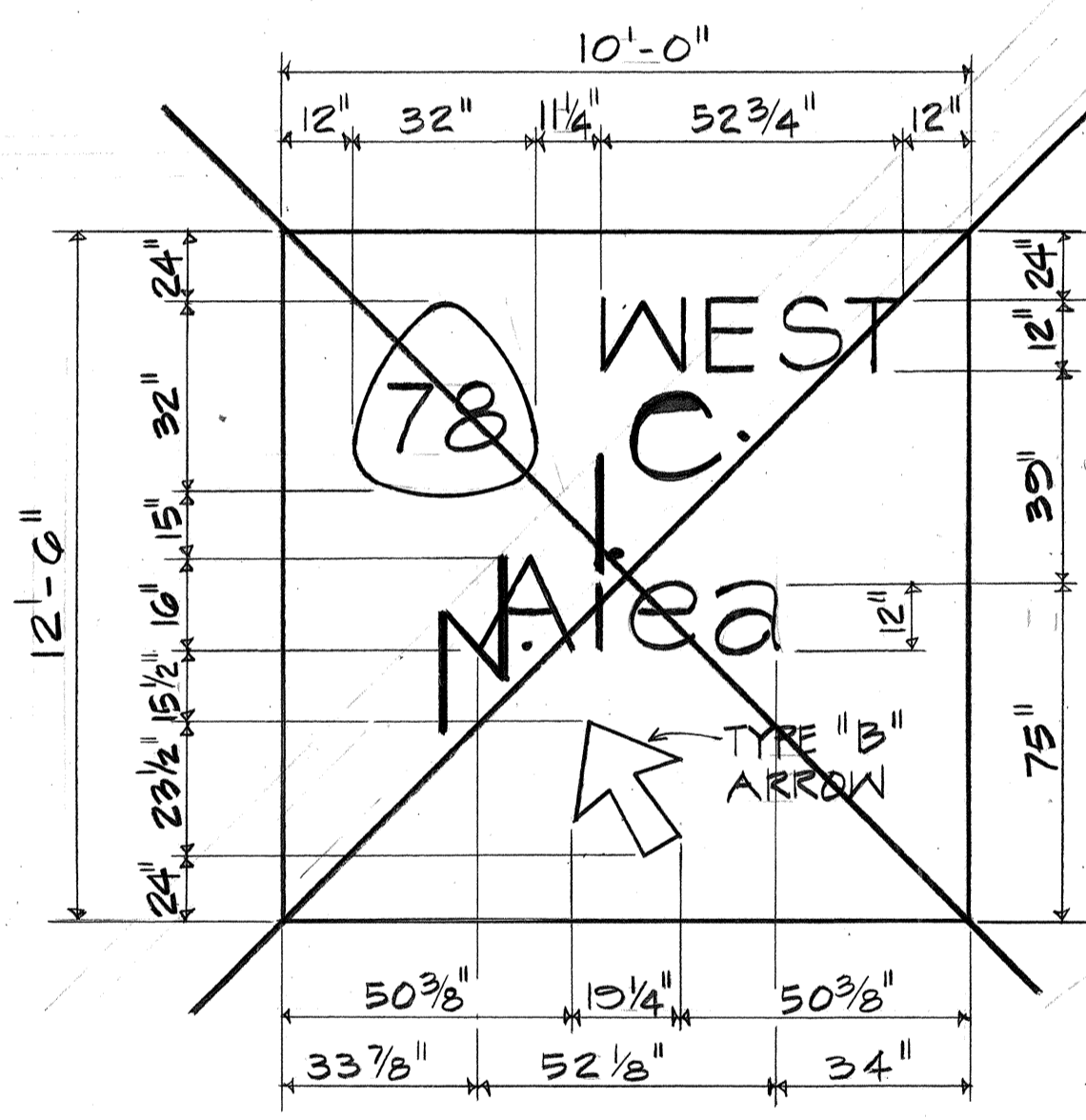
D-7



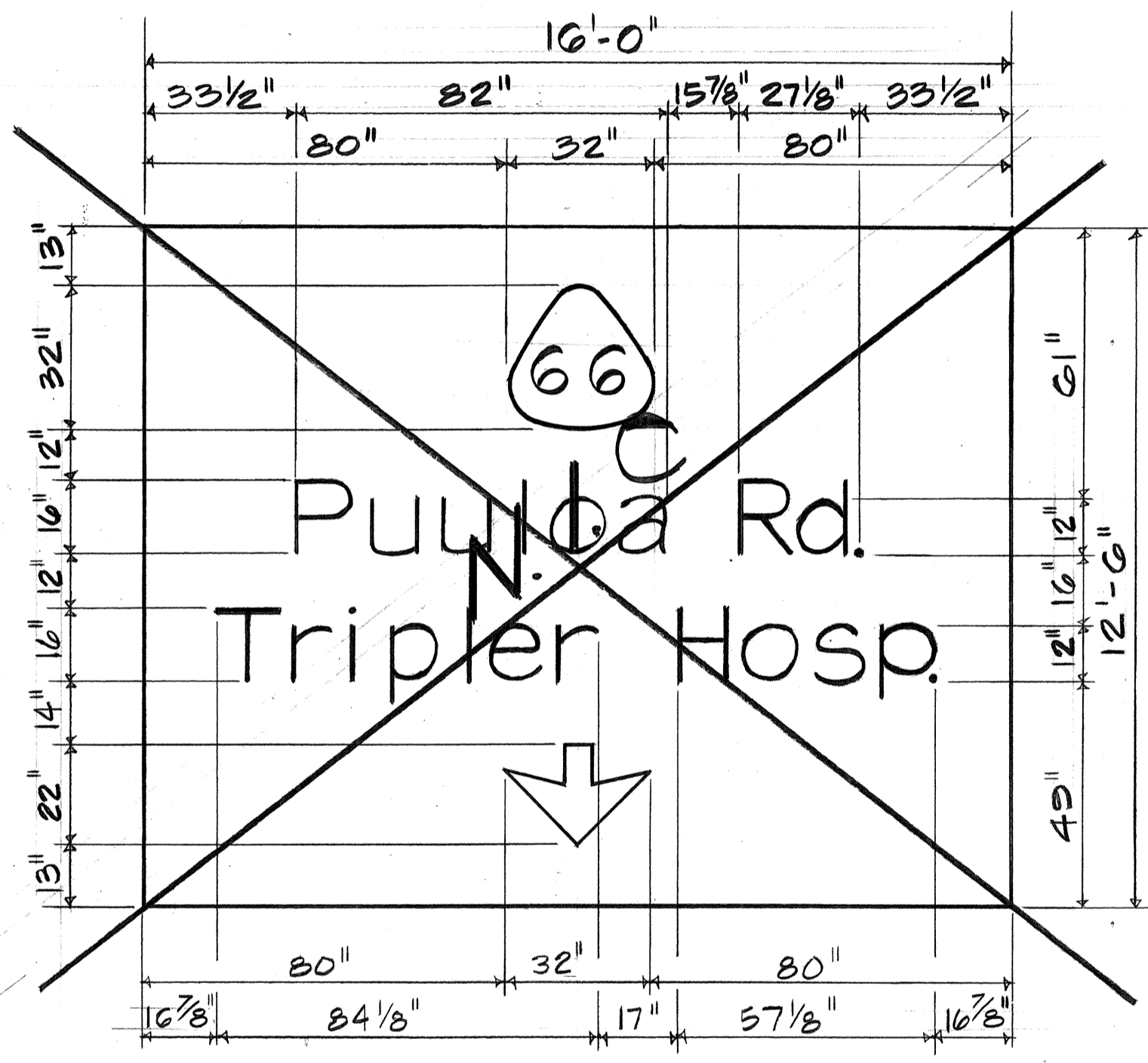
D-8



E-01 AND E-02



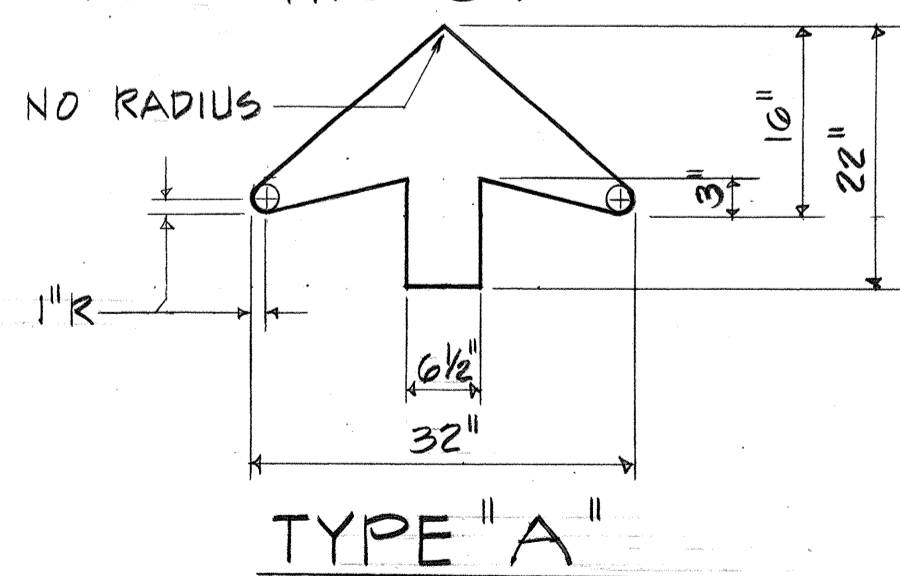
E-1(A)



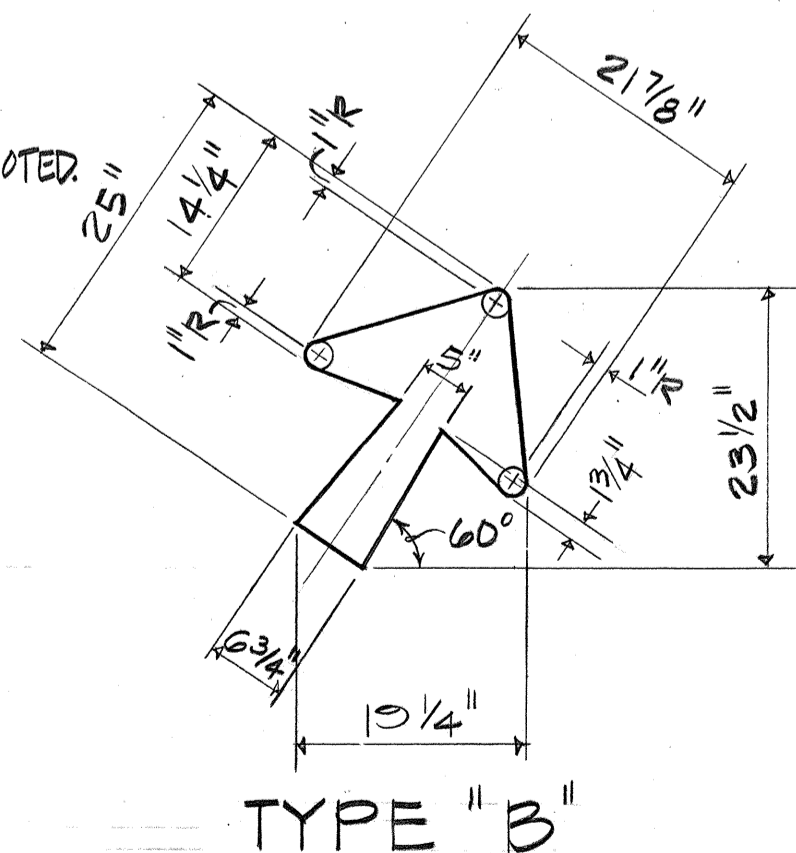
E-1(B)

NOTES :

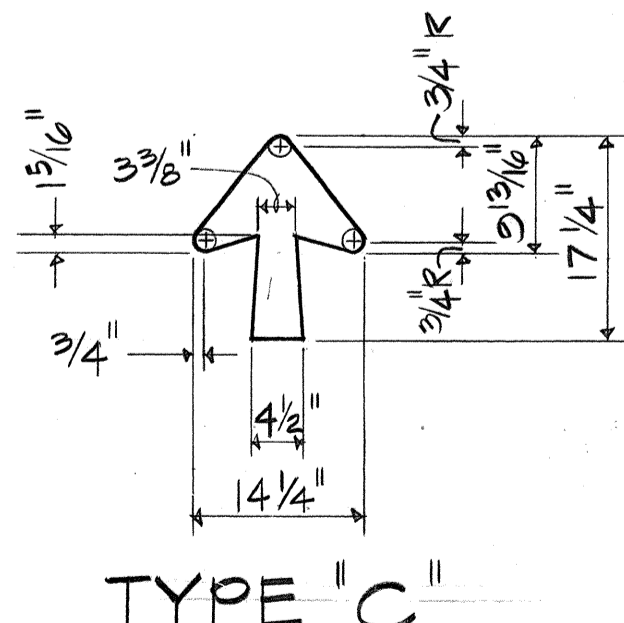
- ALL ARROWS ON EXPRESSWAY (E) SIGNS SHALL BE TYPE "A" UNLESS OTHERWISE NOTED.
- ALL ARROWS ON DESIGNATION (D) SIGNS SHALL BE TYPE "C".



TYPE "A"



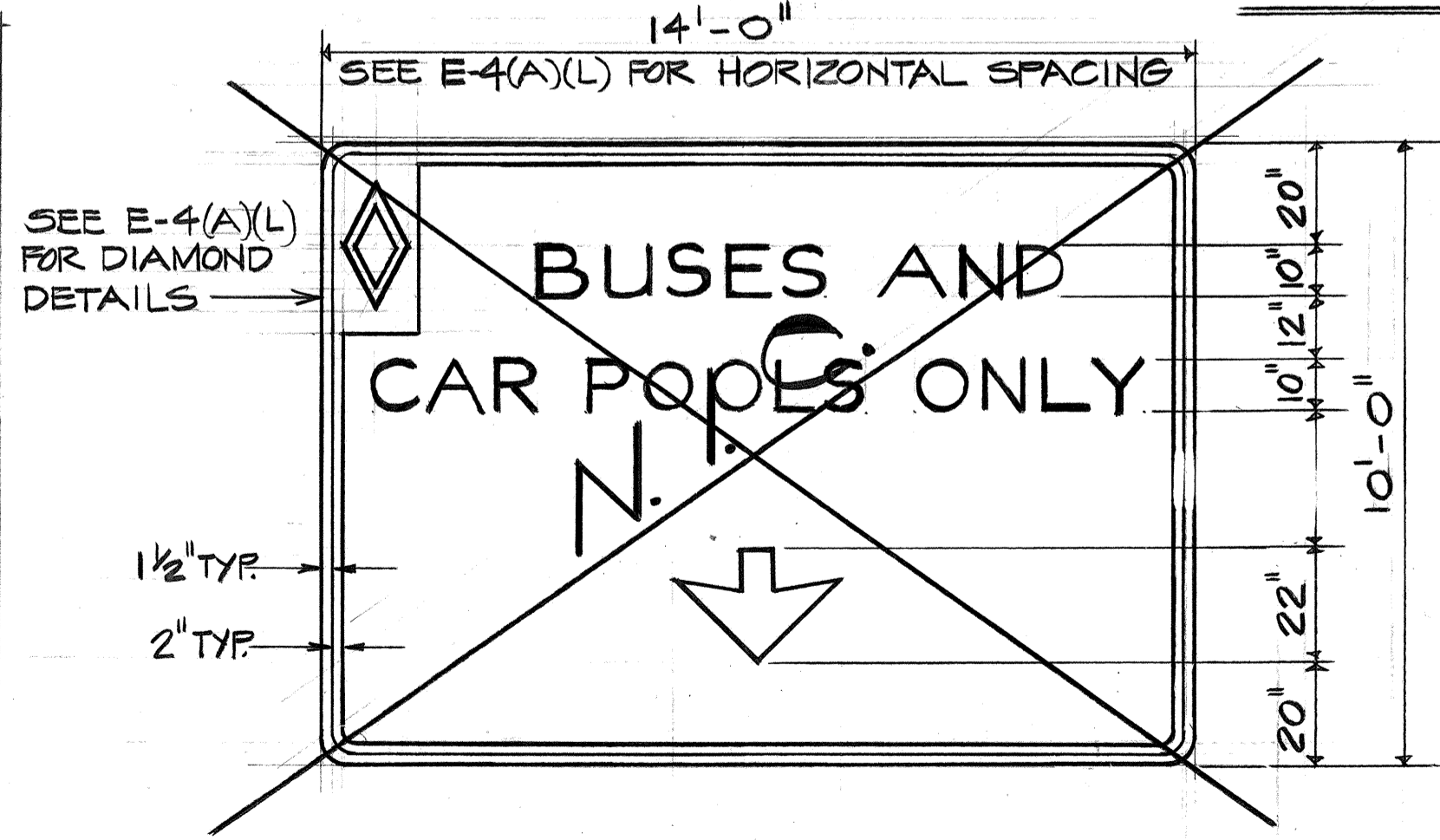
TYPE "B"



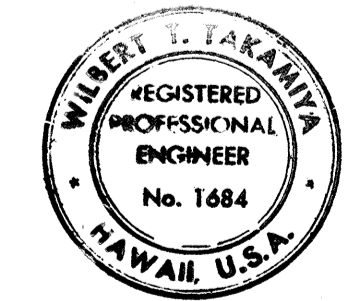
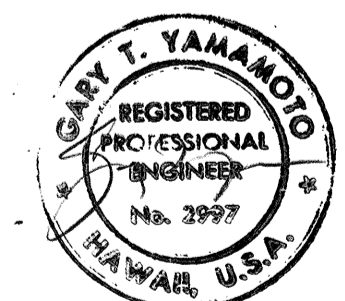
TYPE "C"

TYPICAL ARROW DETAILS

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



E-2(A)(L) AND E-7



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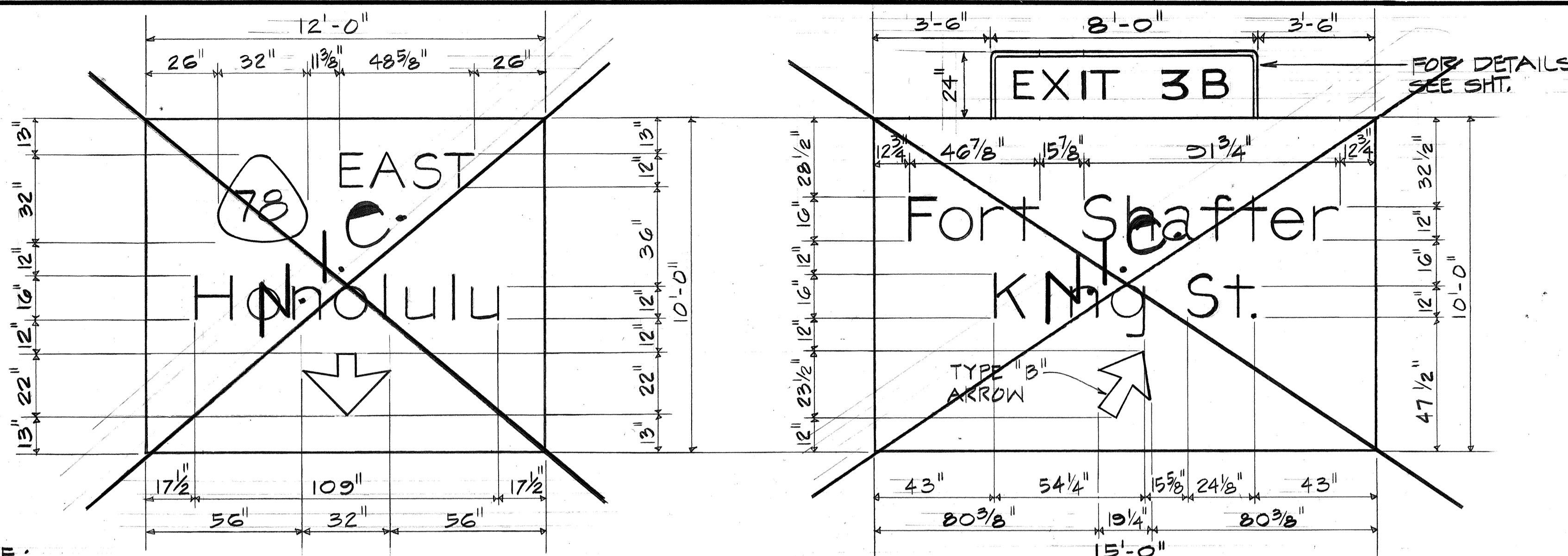
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

PANEL LAYOUT

MOANALUA ROAD
 PUULOA I.C. TO MIDDLE ST. - UNIT 3B
 F.A. Proj. NO. F-078-1(21)
 SCALE: AS SHOWN DATE: AUG 1, 1979

SHEET NO. 1 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(21)	1980	78	234



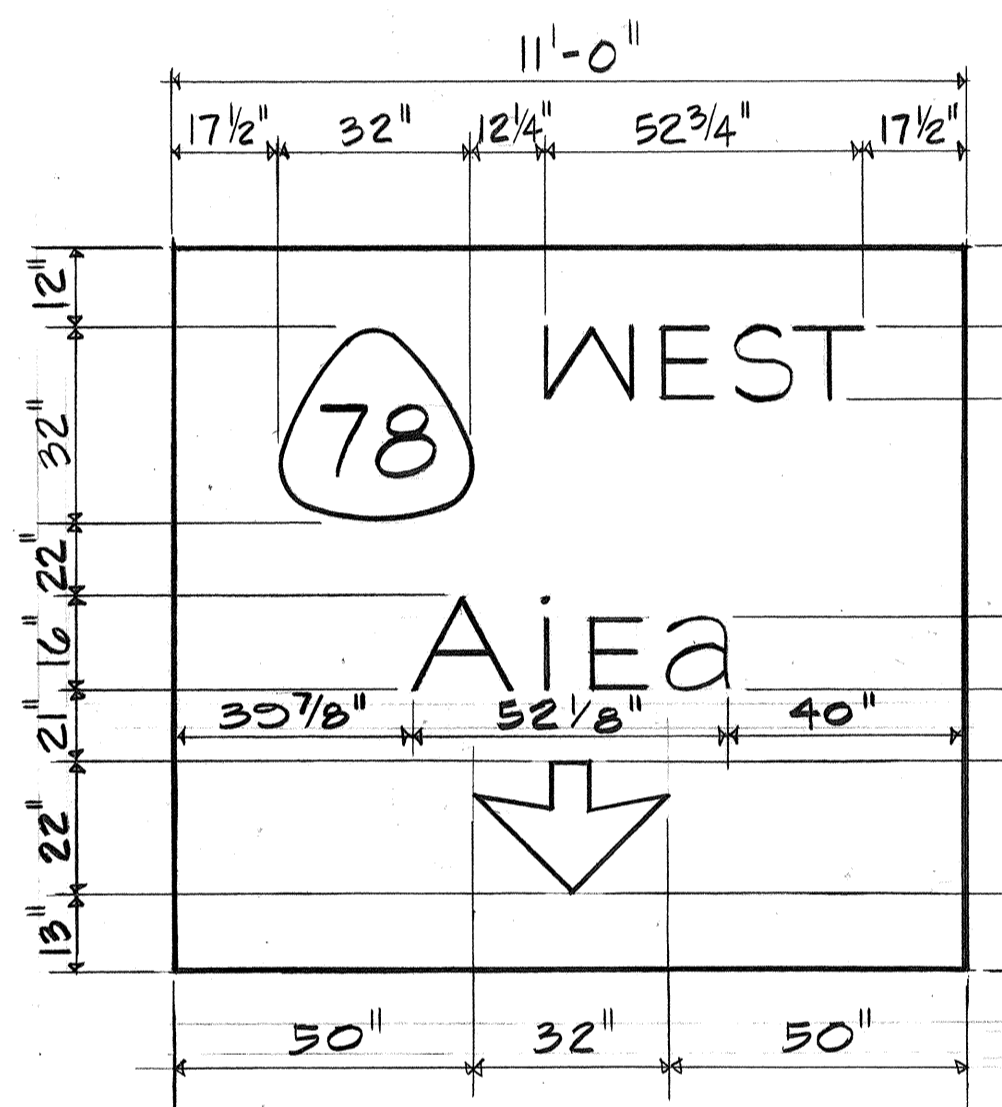
USE SIDEWALK
4" SERIES "E" LETTERS
R-18-1
24" x 18"

WALK BIKE
4" SERIES "E" LETTERS
R-20-1
18" x 18"

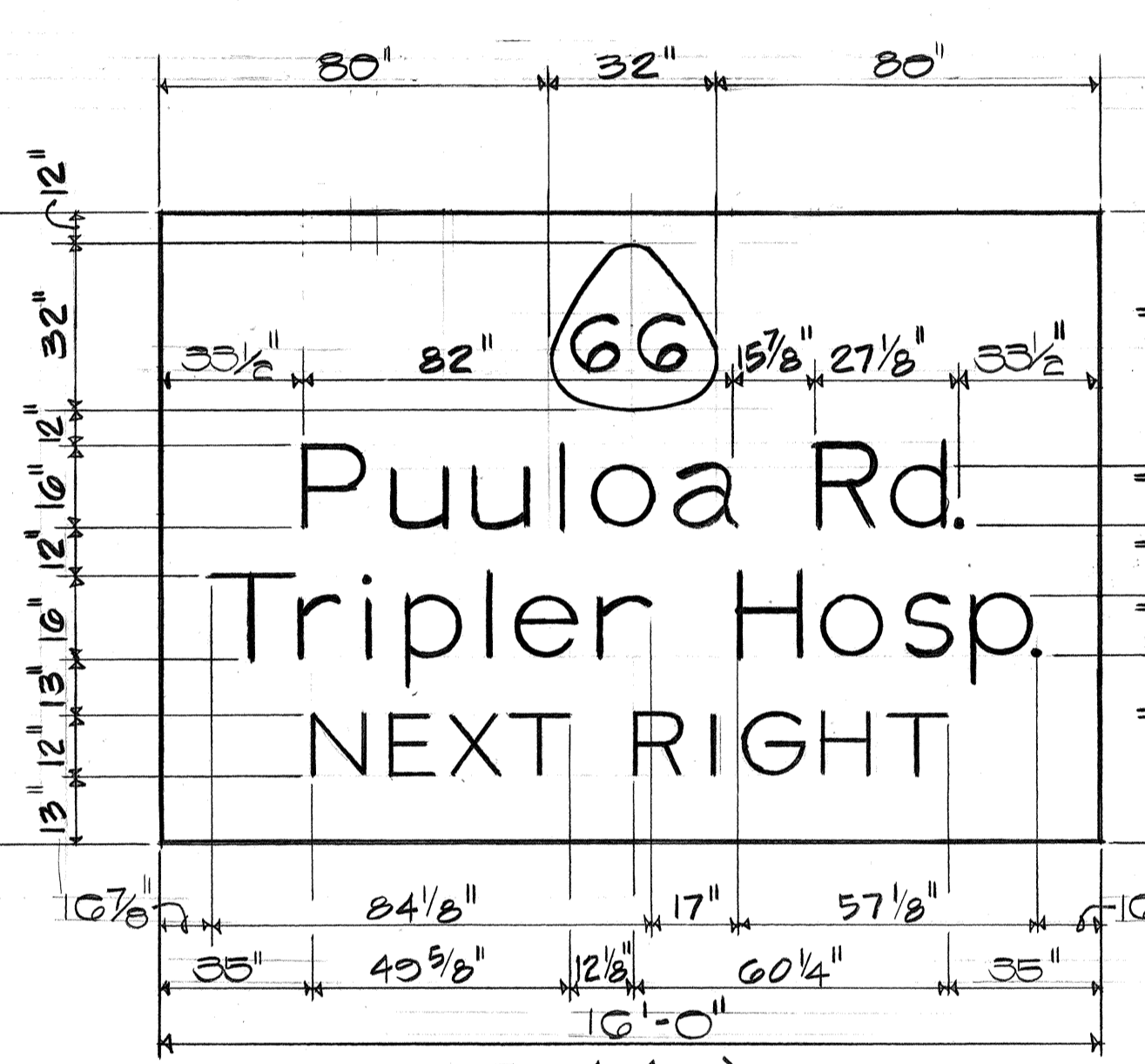
NOTE:
FOR SIGN E-2(A)(L) SEE SHT. 115
E-2(B)(C)

E-2

E-2(C)(R)

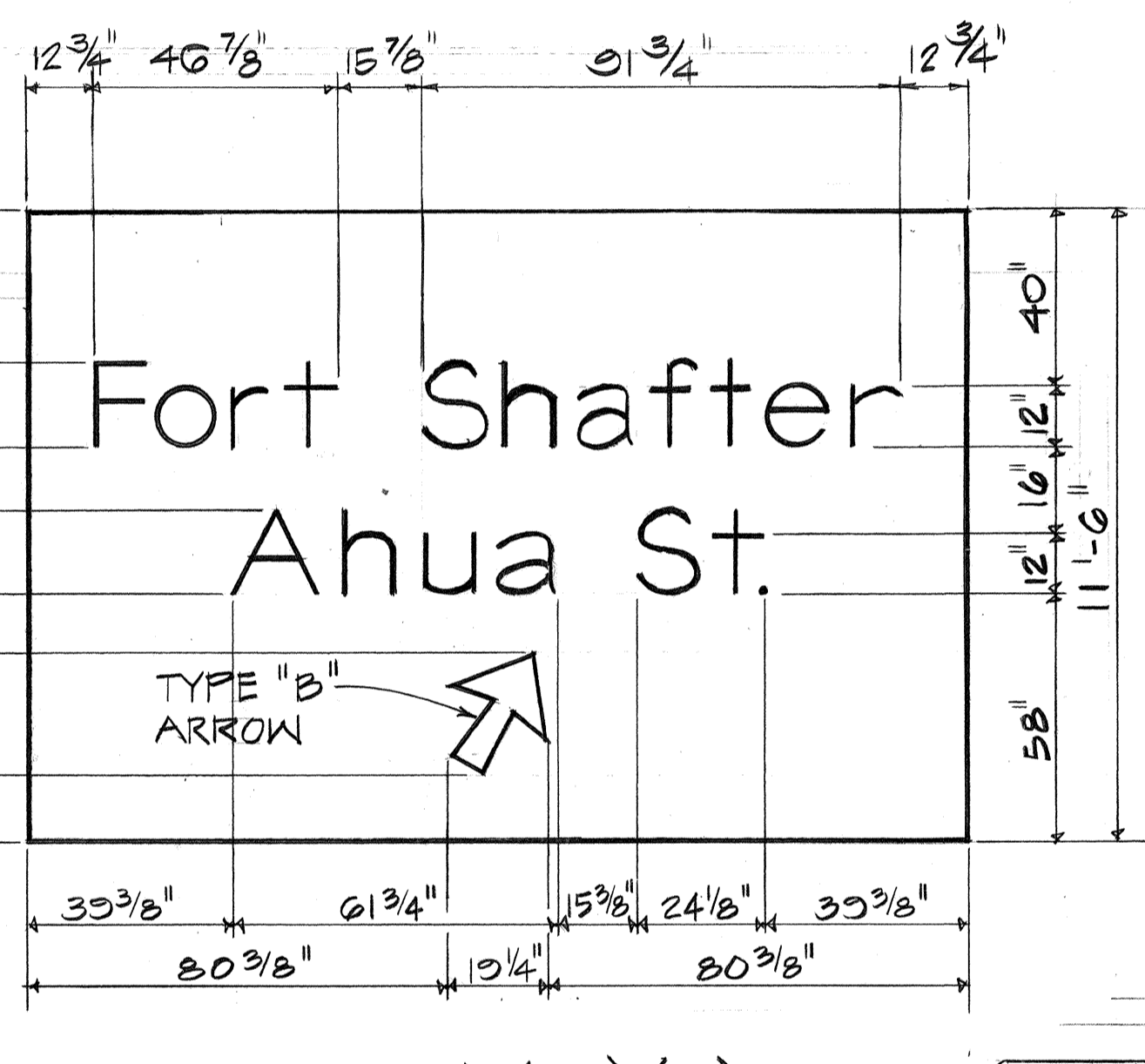


E-4(B)

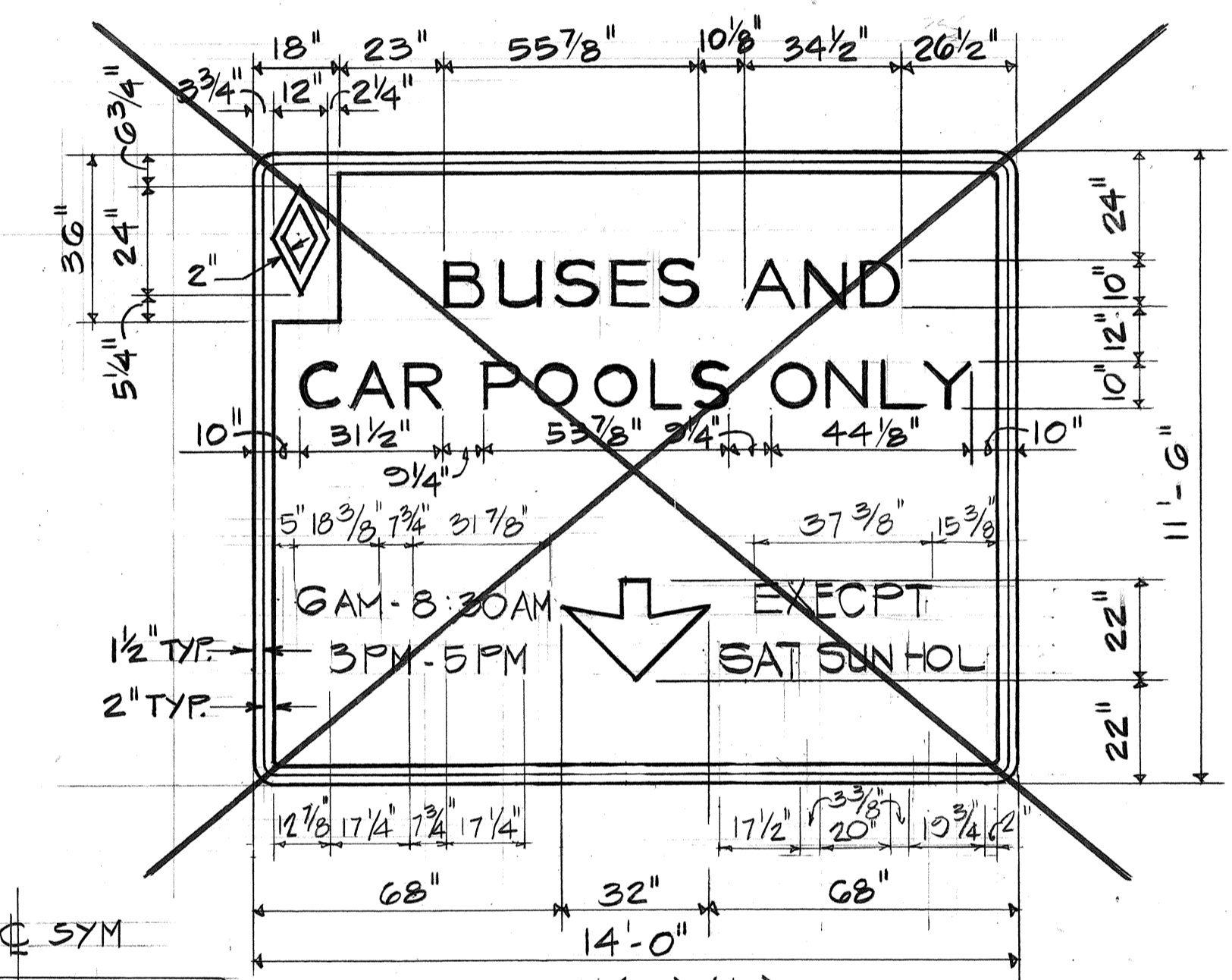


E-4(C)

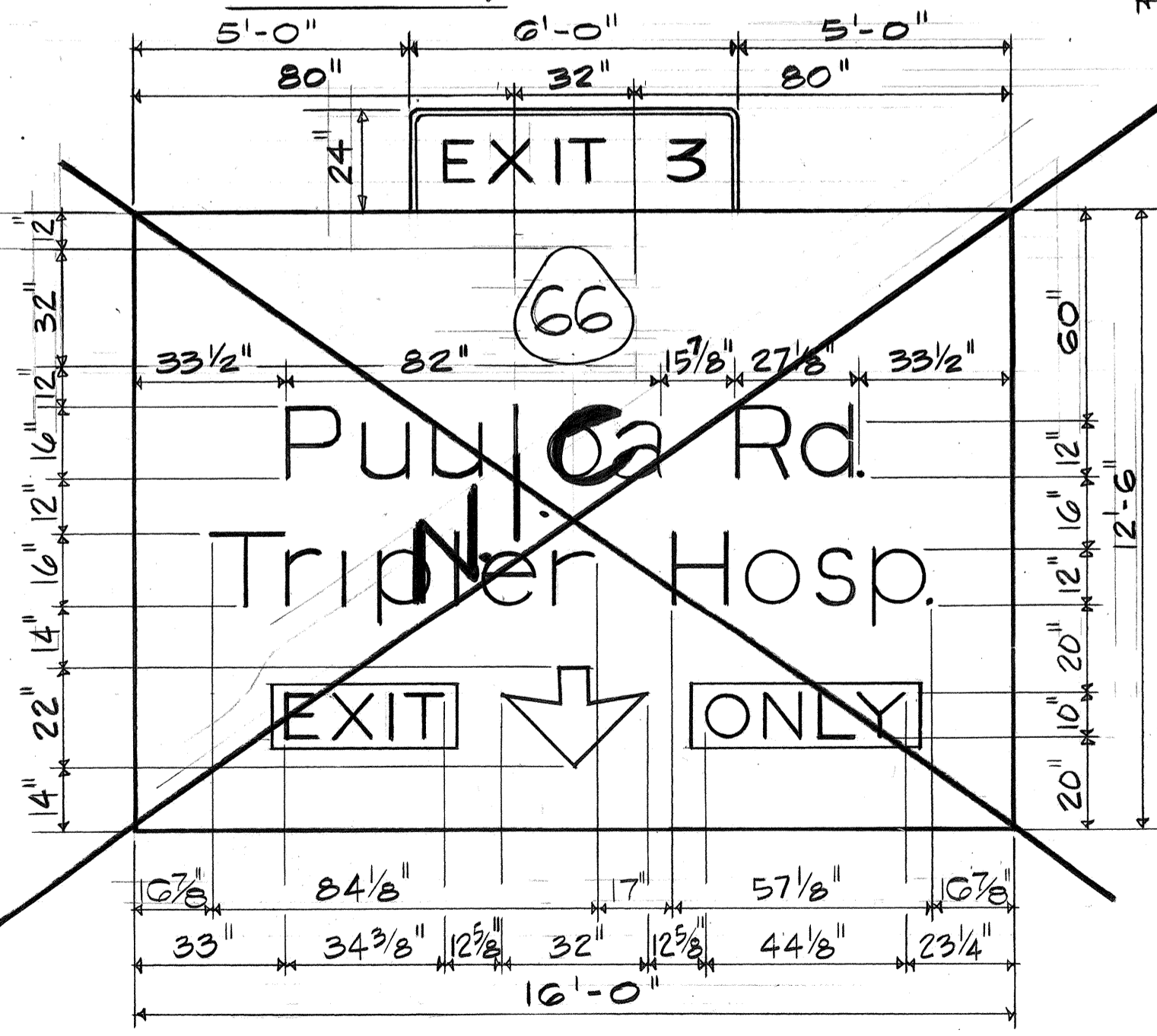
E-4



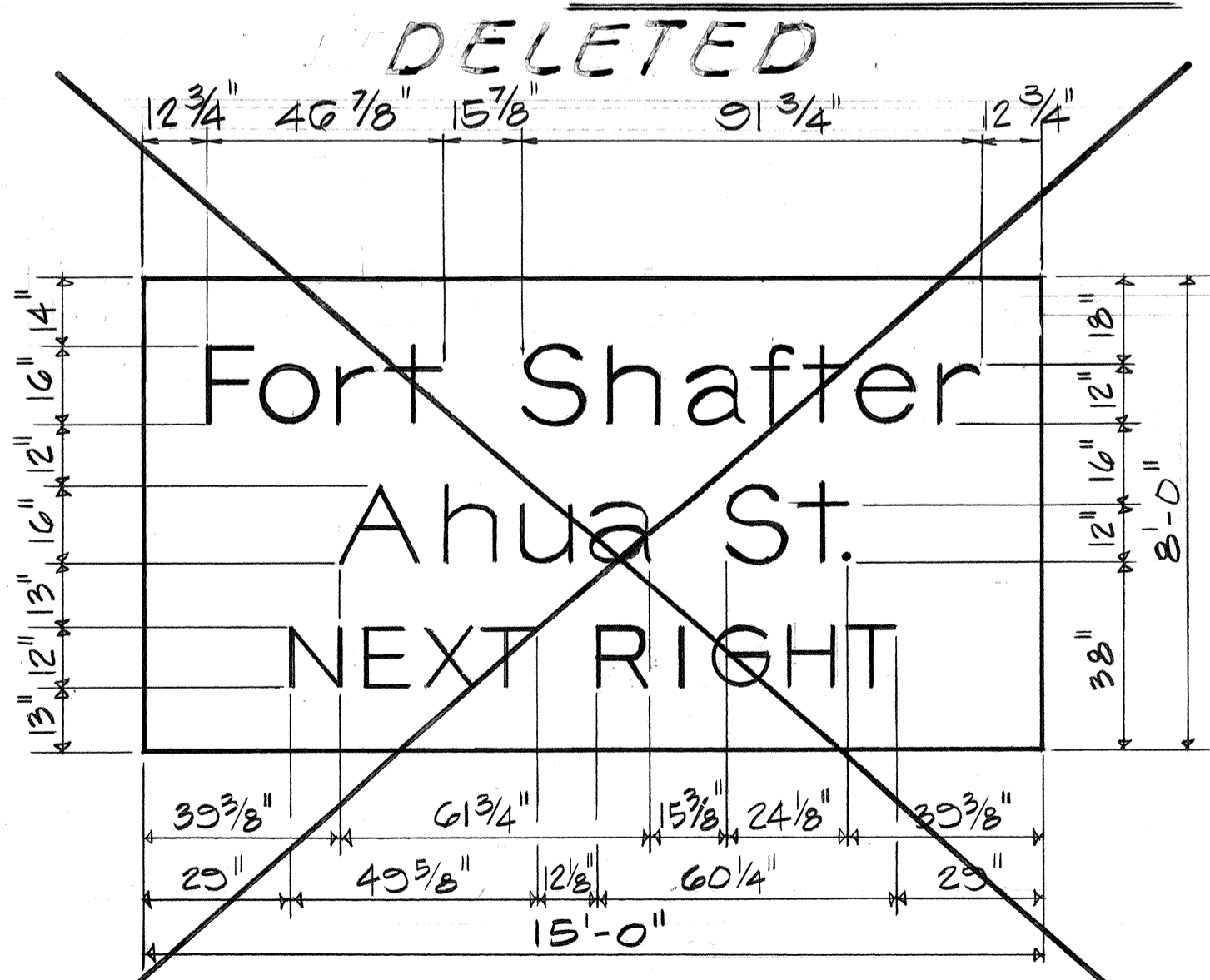
E-4(D)(R)



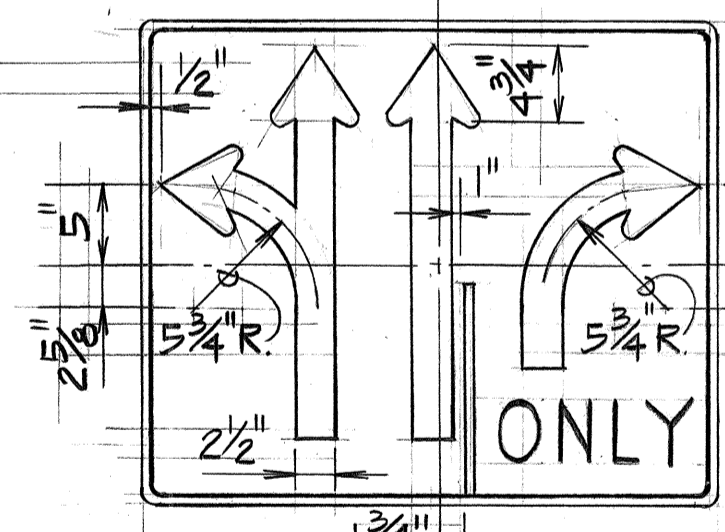
E-4(A)(L)



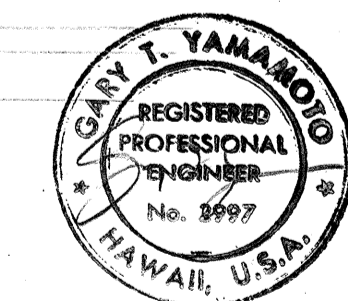
E-5



E-6



R3-13(R)
36" x 30"



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

4/8/81 DELETED BUSES & CAR POOLS SIGN.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PANEL LAYOUT

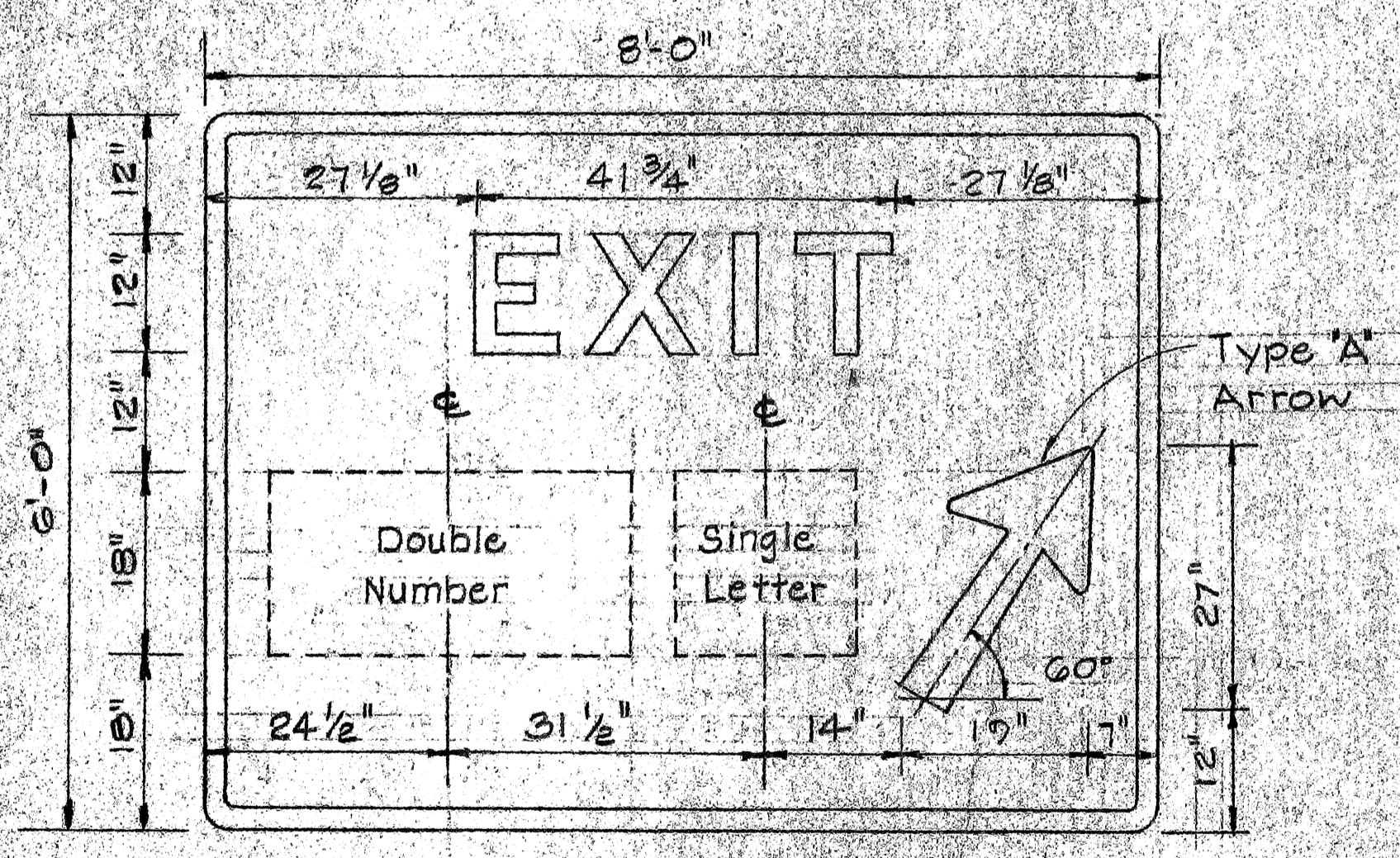
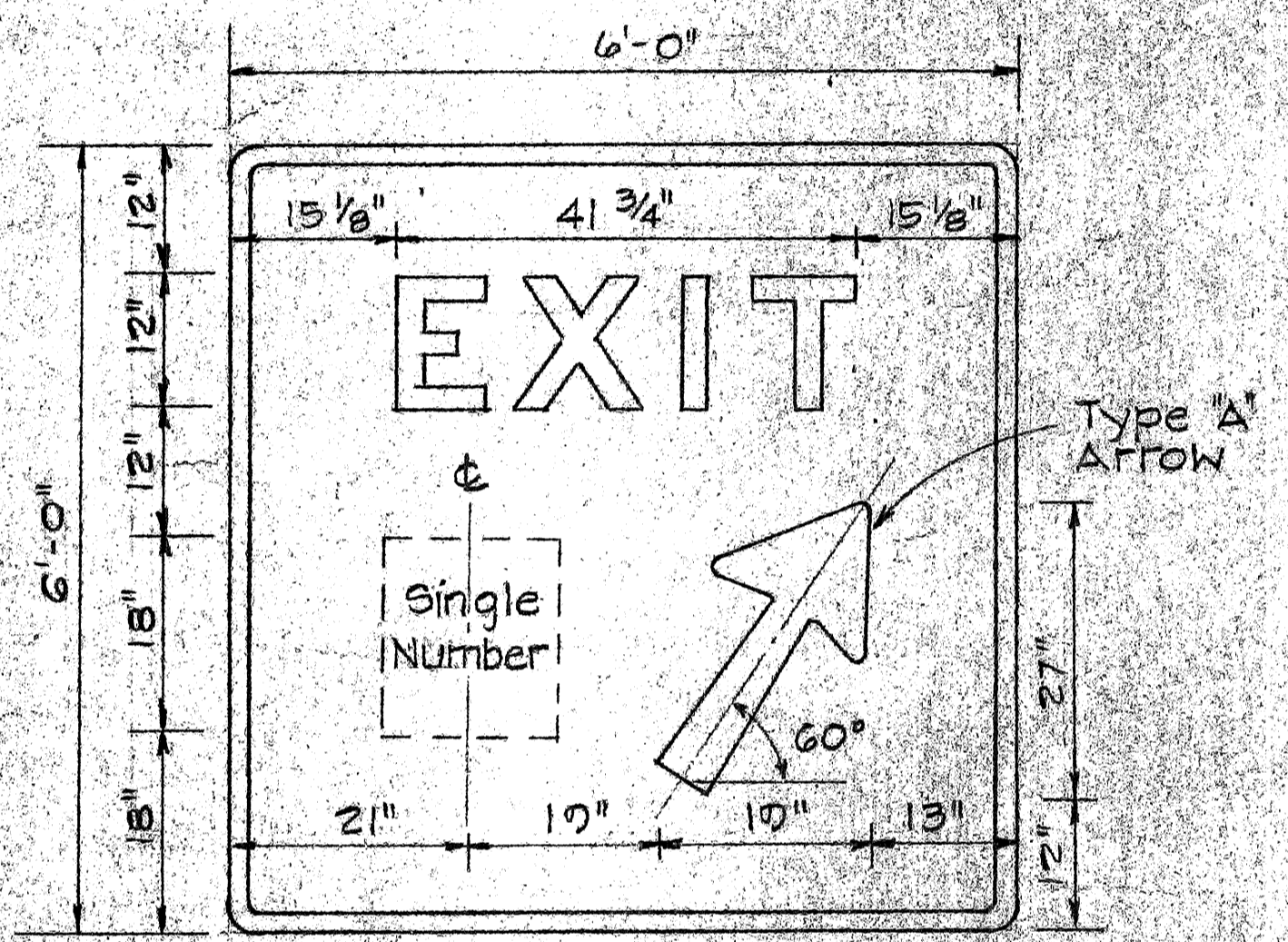
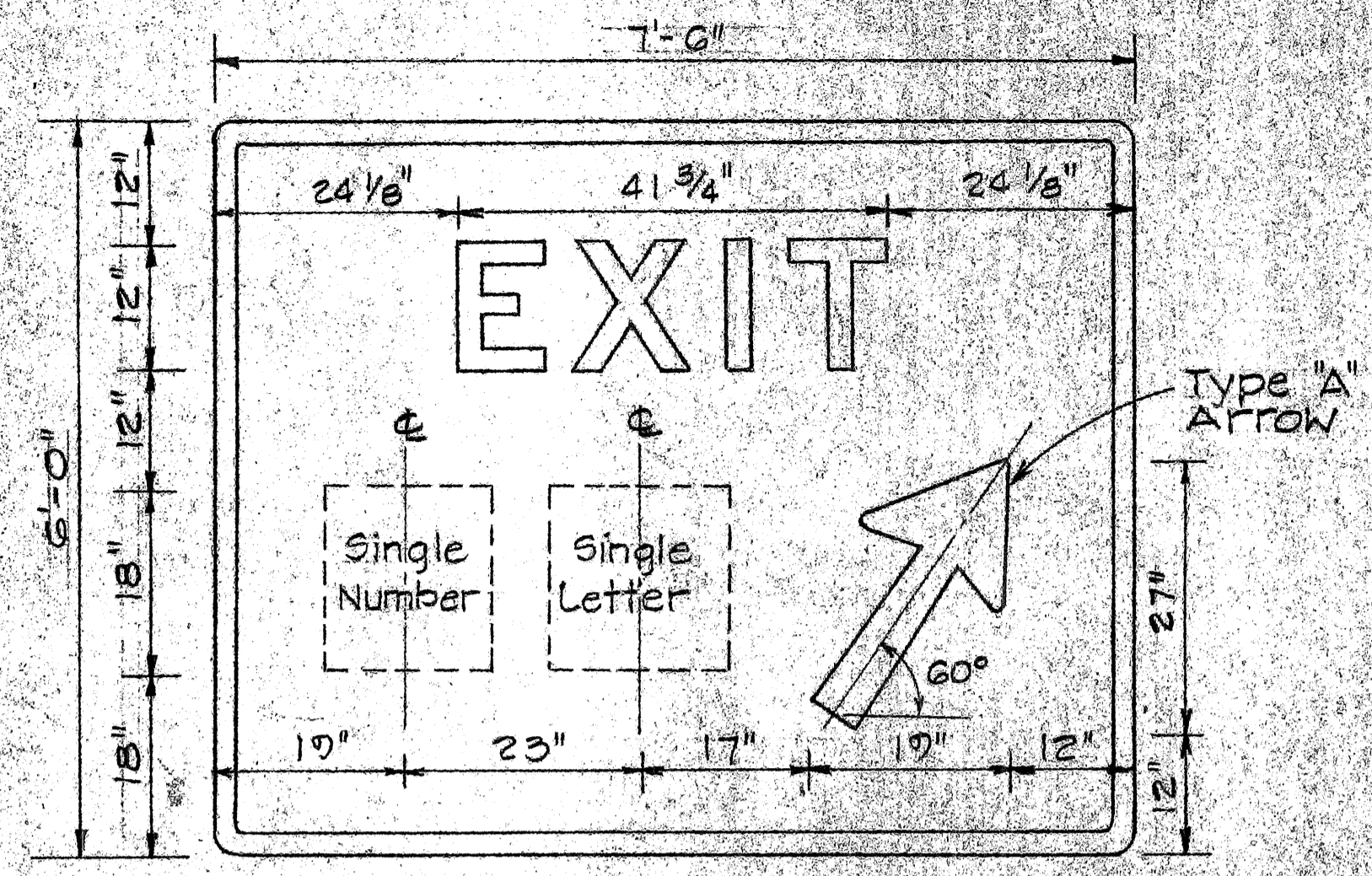
MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST. - UNIT 3B
F.A. Proj. NO. F-078-1(21)
SCALE: AS SHOWN DATE: AUG 1, 1979

SHEET NO. 2 OF 3 SHEETS

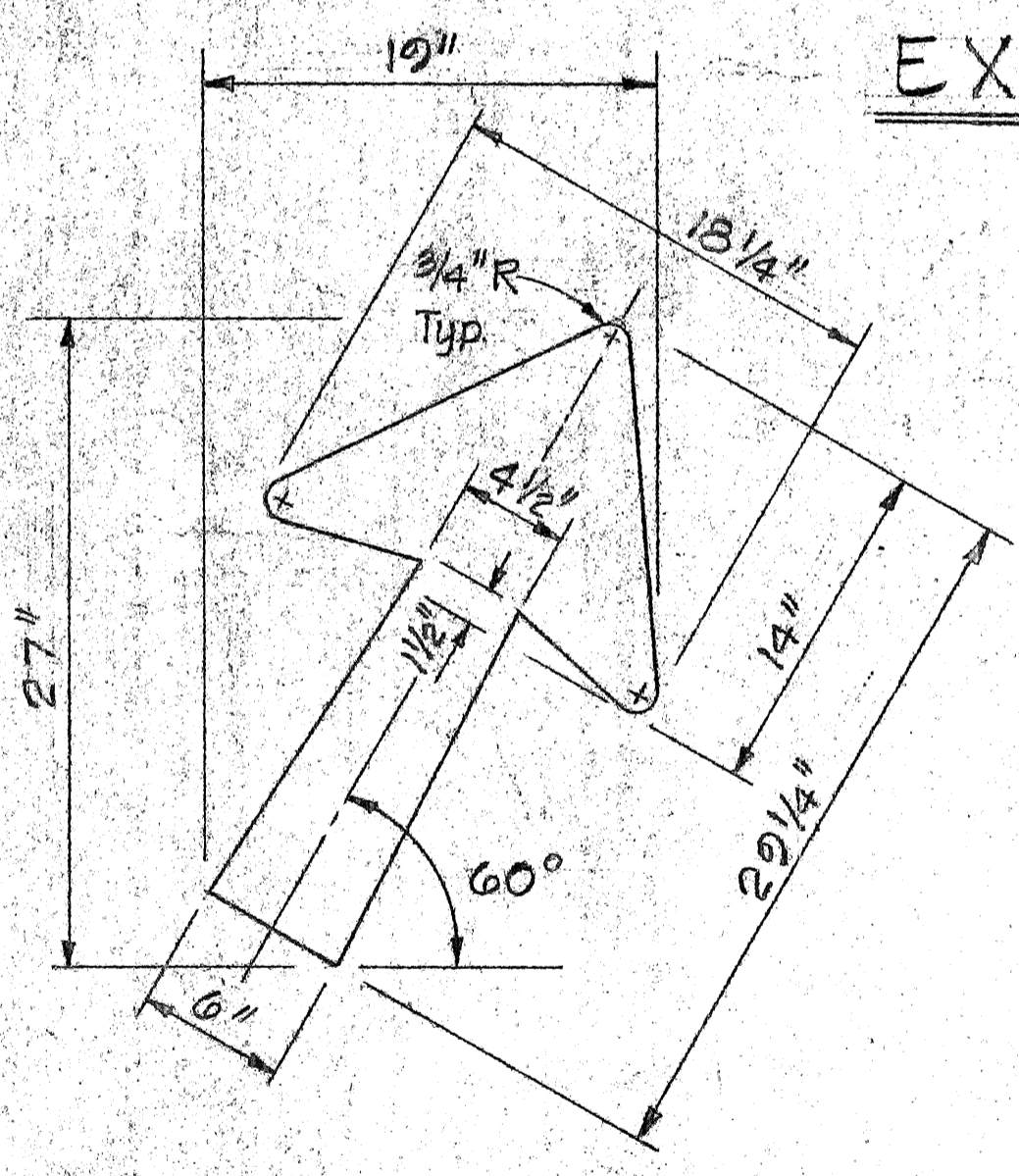
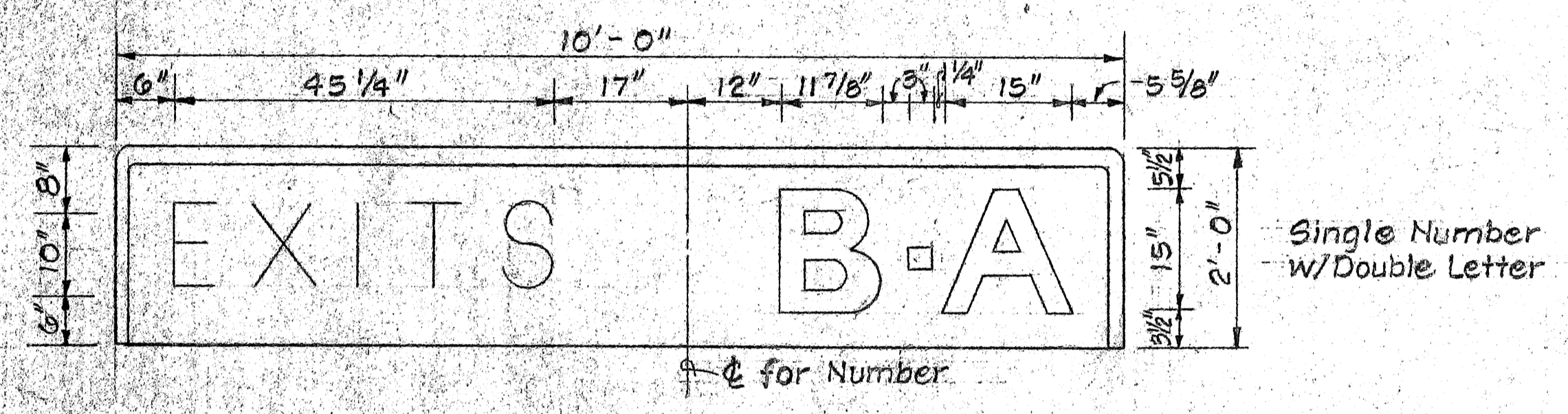
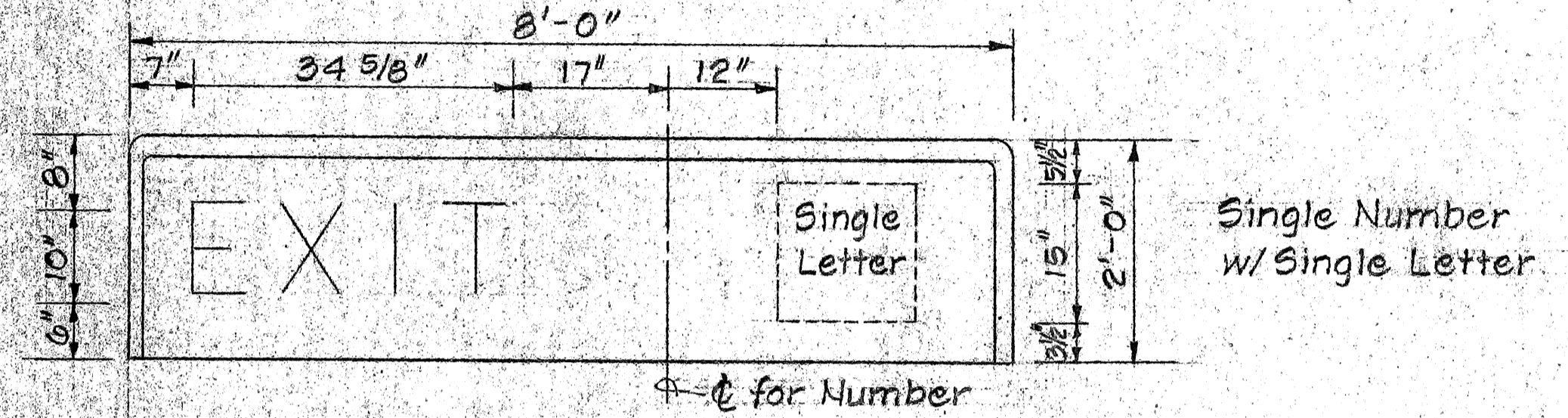
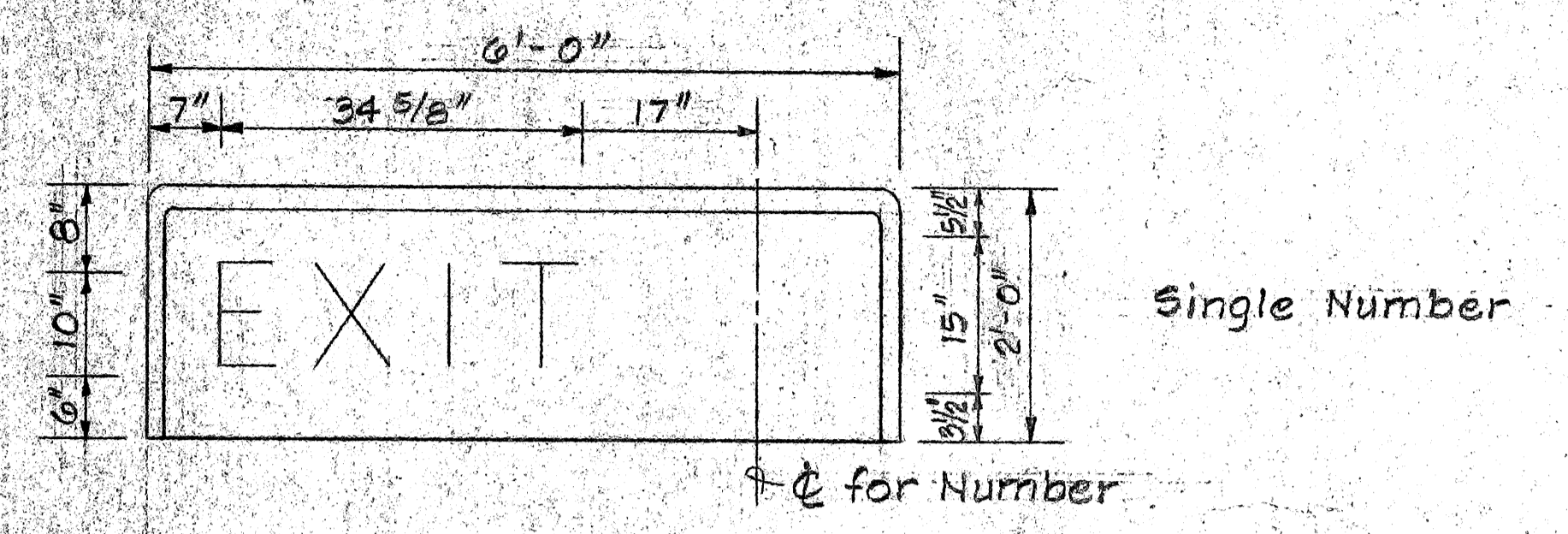
ADD 78

DATE
SURVEY PLOTTED BY
DRAWN BY
CHECKED 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.	F078-1(21)	1980	33	334

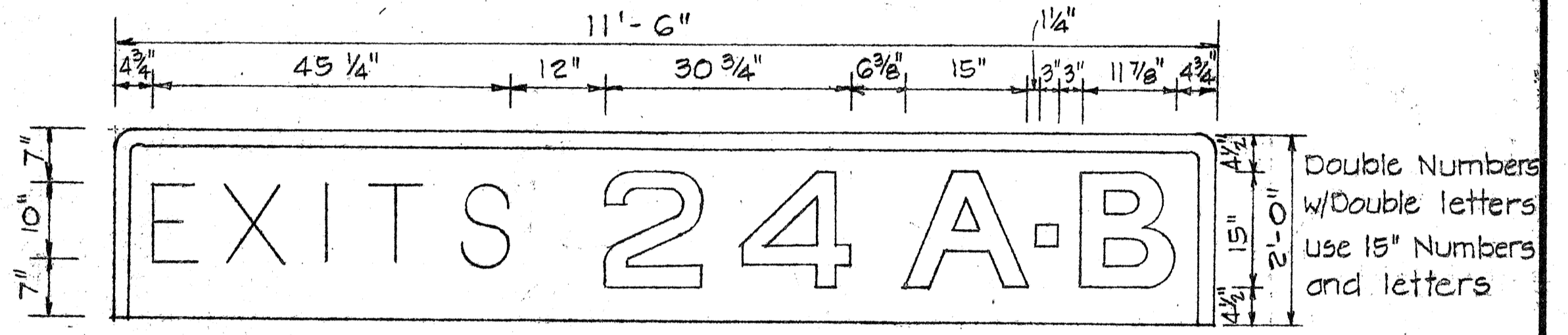
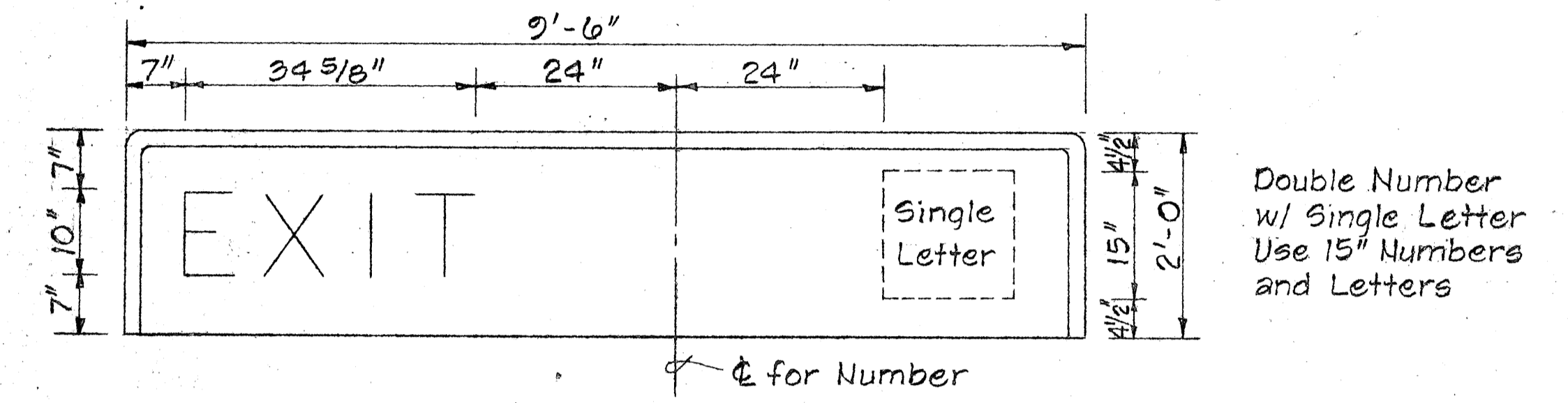
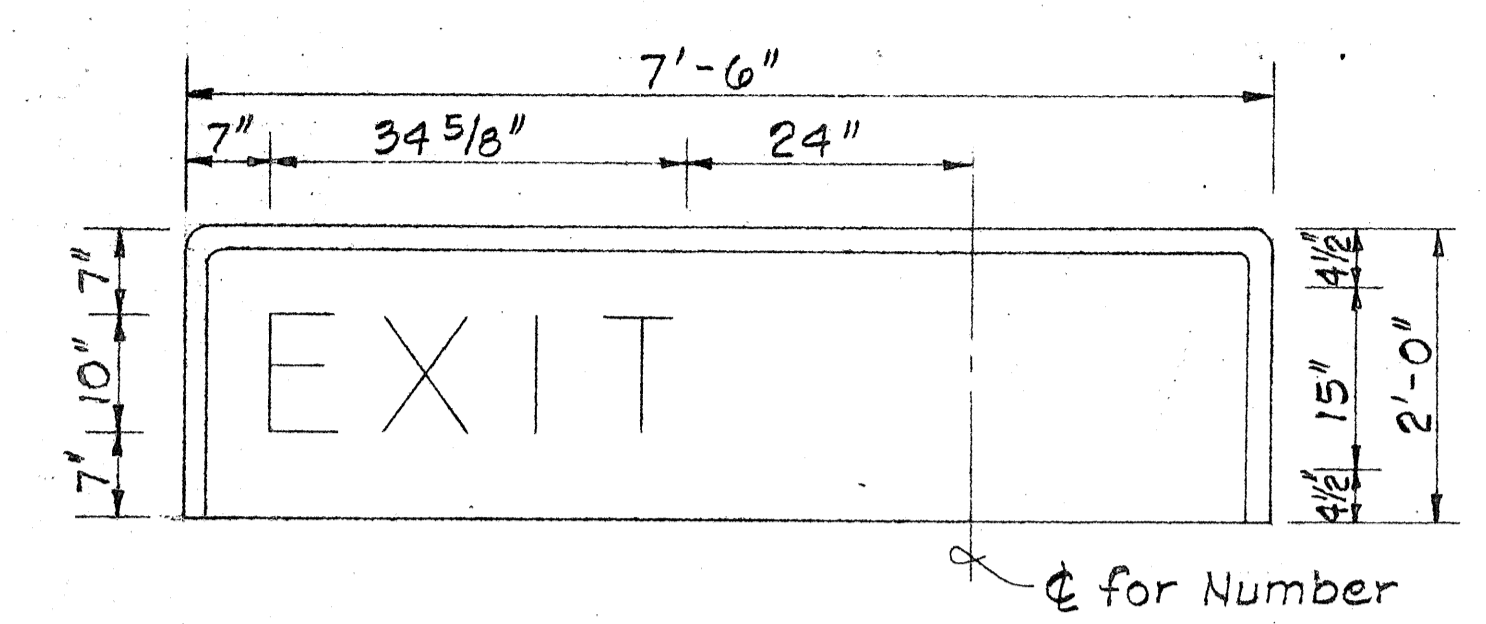


GORE EXIT SIGNS
Scale: 3/4" = 1'-0"

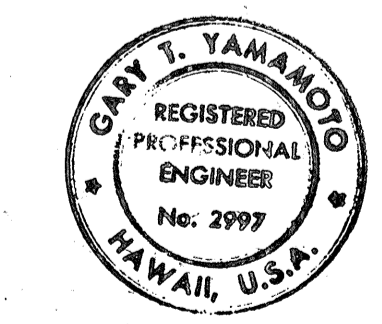


TYPE "A" DIAGONAL ARROW DETAIL
N.T.S.

EXIT NUMBER PANELS
Scale: 3/4" = 1'-0"



1. Design of Exit Number Panels shall conform to plans and specifications for either the Expressway or Destination sign to which the exit Number Panel will be attached.
2. Sign message shall be lettered in uppercase according to Standard Alphabets for Highway Signs, FHWA, 1966. Use Series "E" letters unless otherwise noted.
3. Arrows, borders, and route markers shall conform with details as shown on plans.
4. Contractor shall submit for approval, shop drawings for the attachment of Exit Number Panels to sign panels.



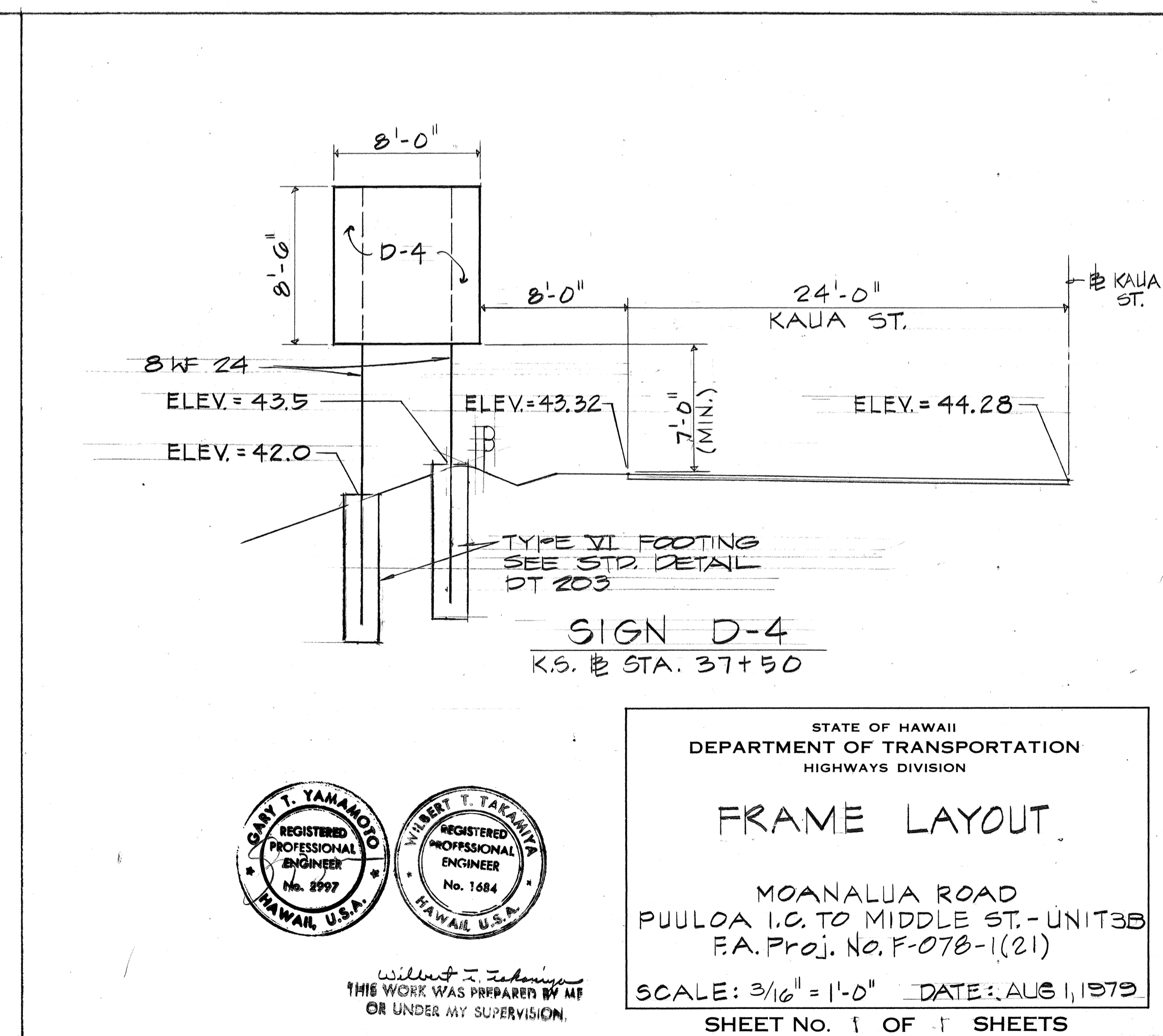
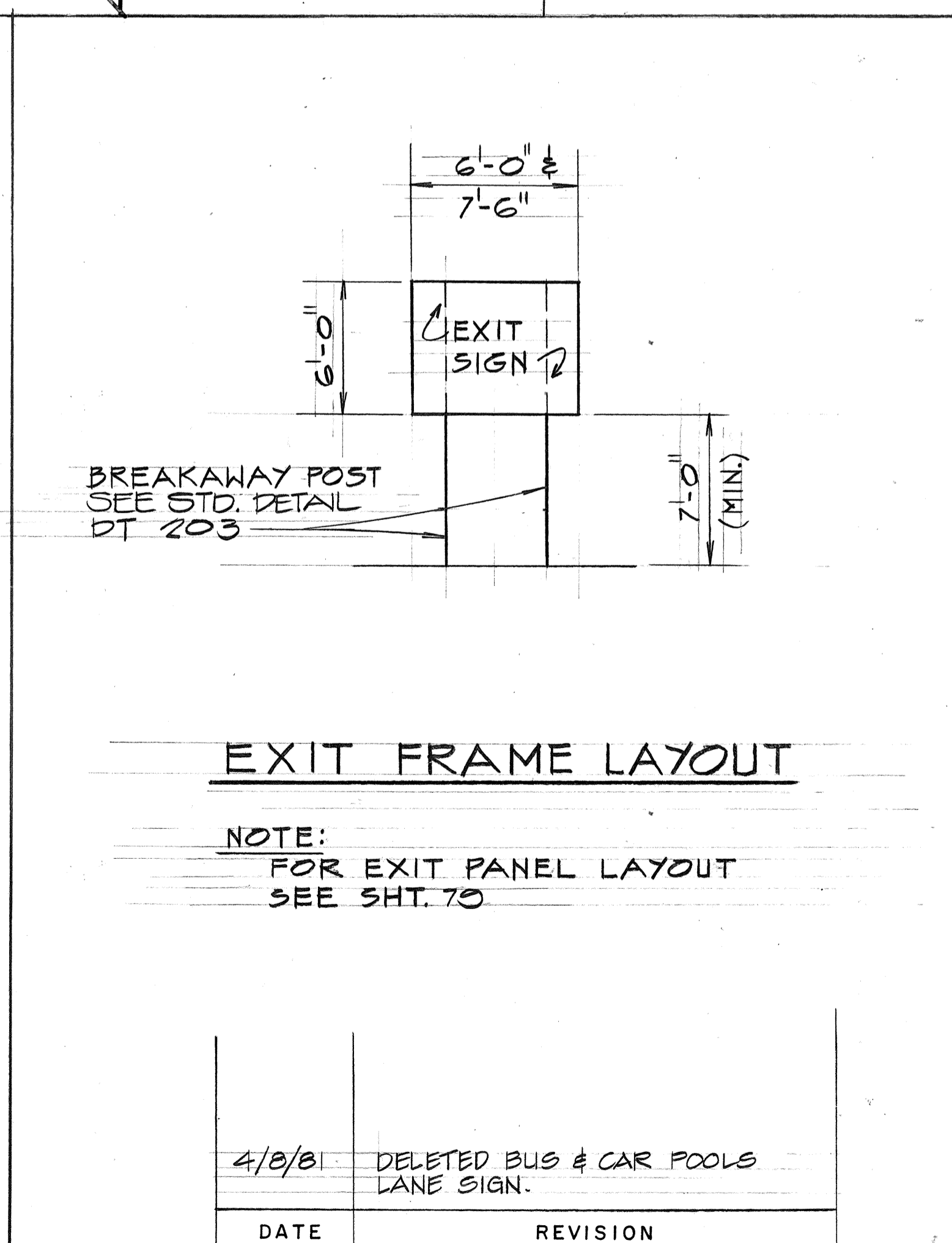
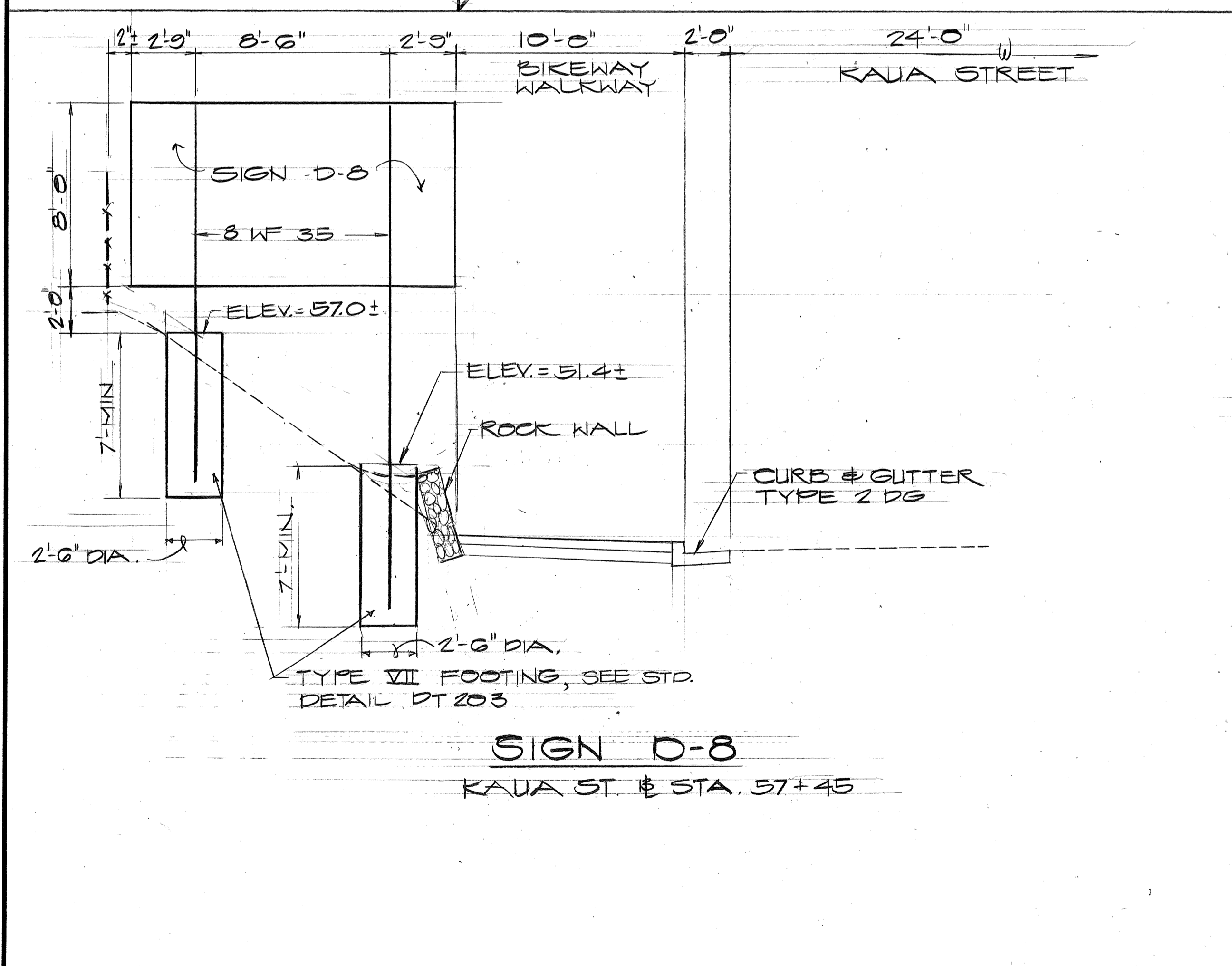
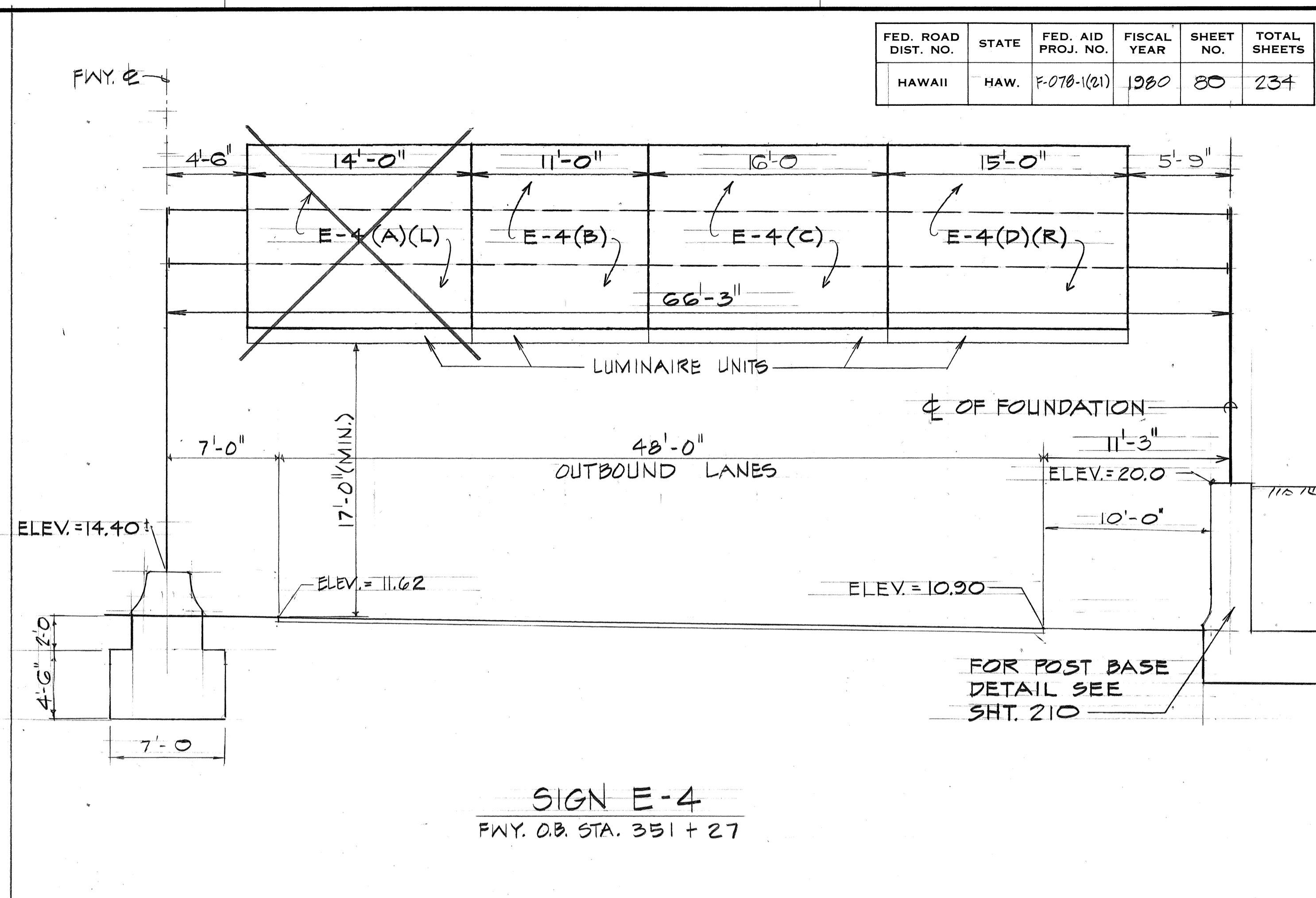
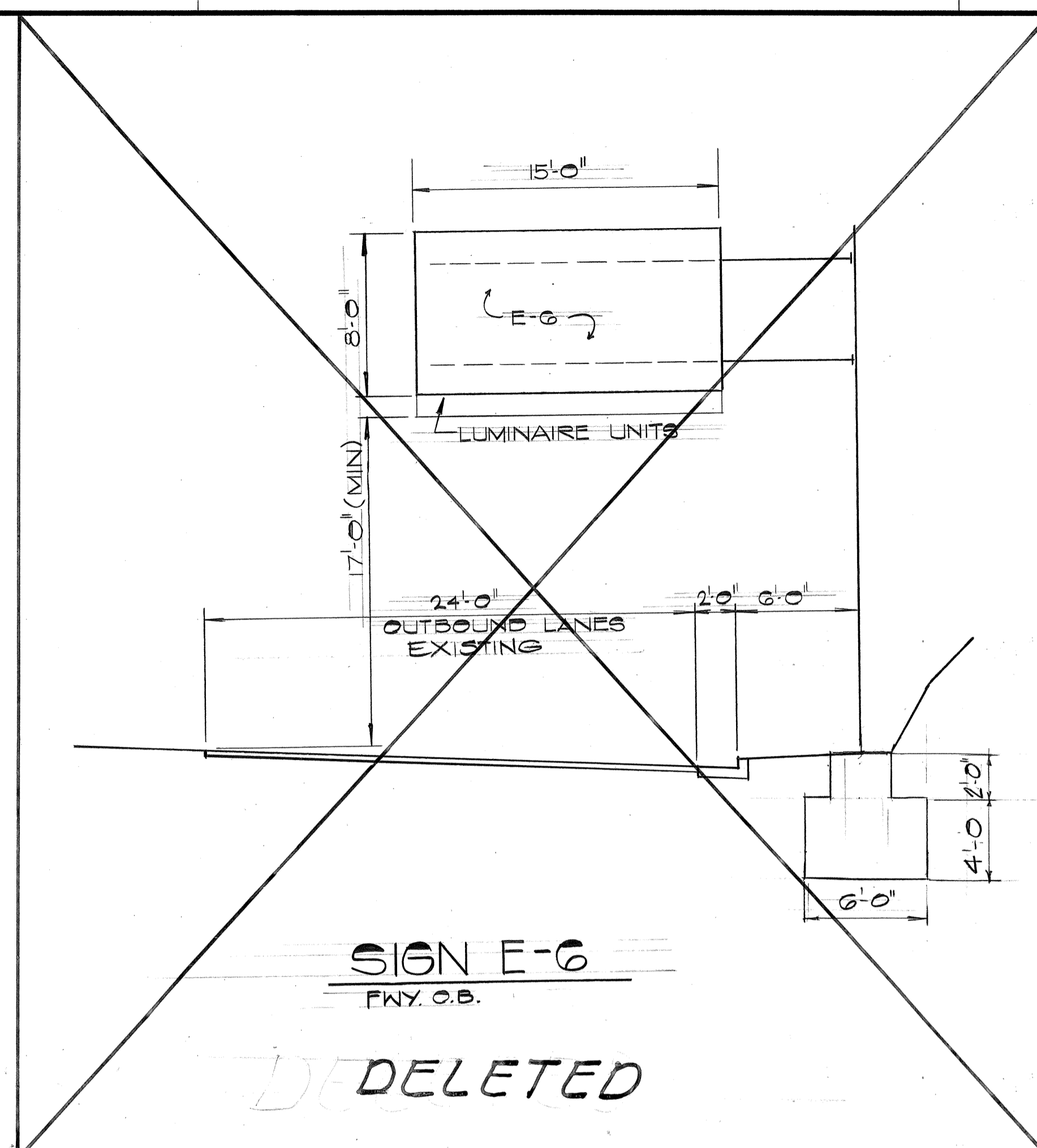
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGN PANEL LAYOUT

Scale: As Shown Date: Sept. 1976
SHEET NO. 3 OF 3 SHEETS

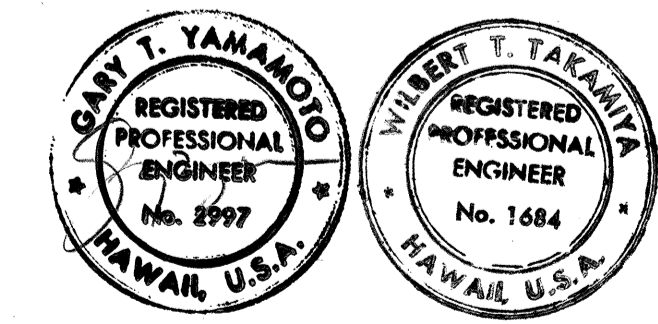
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(21)	1980	80	234



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

NOTE:
FOR EXIT PANEL LAYOUT
SEE SHT. 70

DATE	REVISION
4/8/81	DELETED BUS & CAR POOLS LANE SIGN.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FRAME LAYOUT

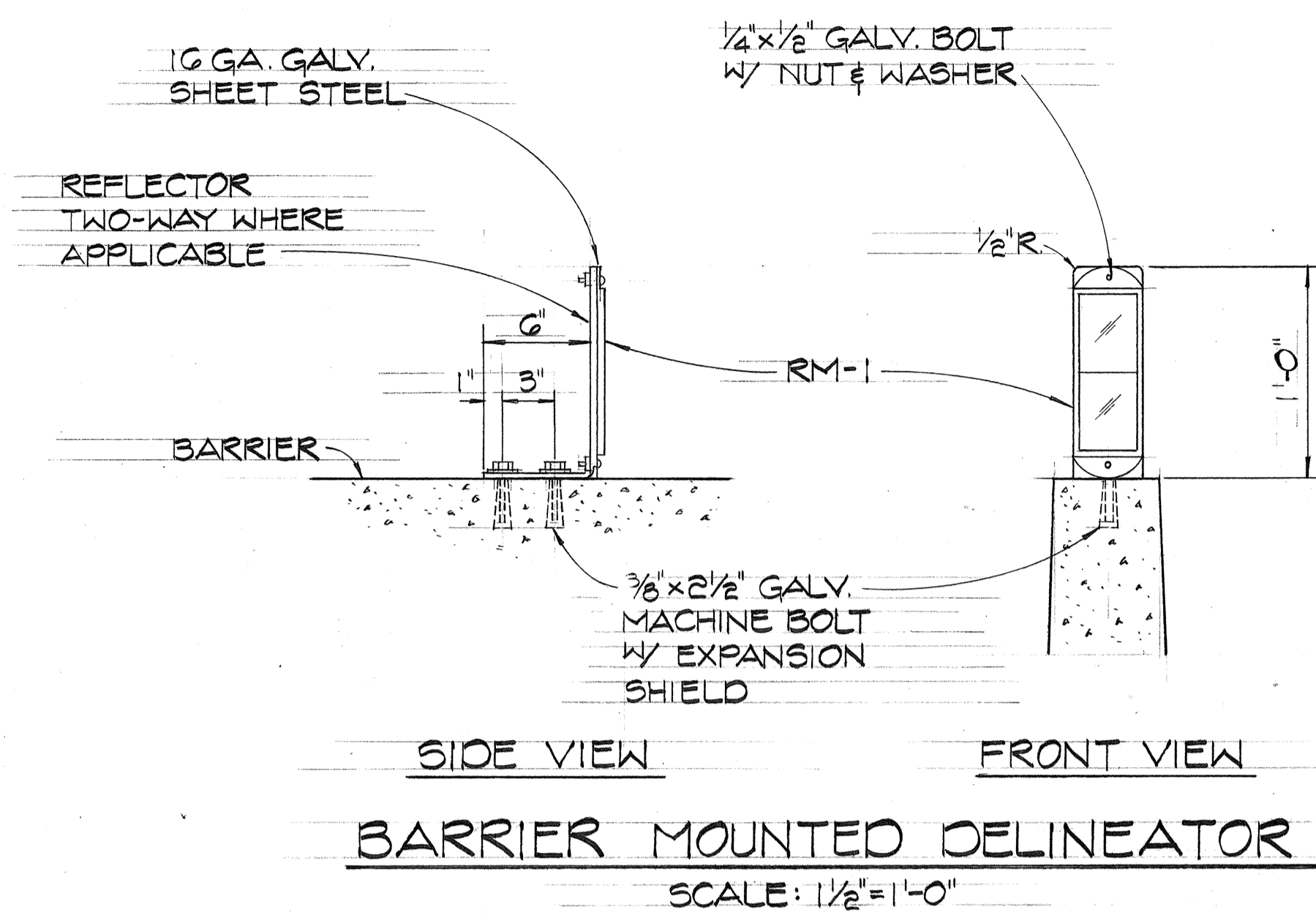
MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST. - UNIT 3B
F.A. Proj. No. F-078-1(21)

SCALE: 3/16" = 1'-0" DATE: AUG 1, 1979

SHEET NO. 1 OF 1 SHEETS

ADD 80

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-07B-1(21)	1980	81	234

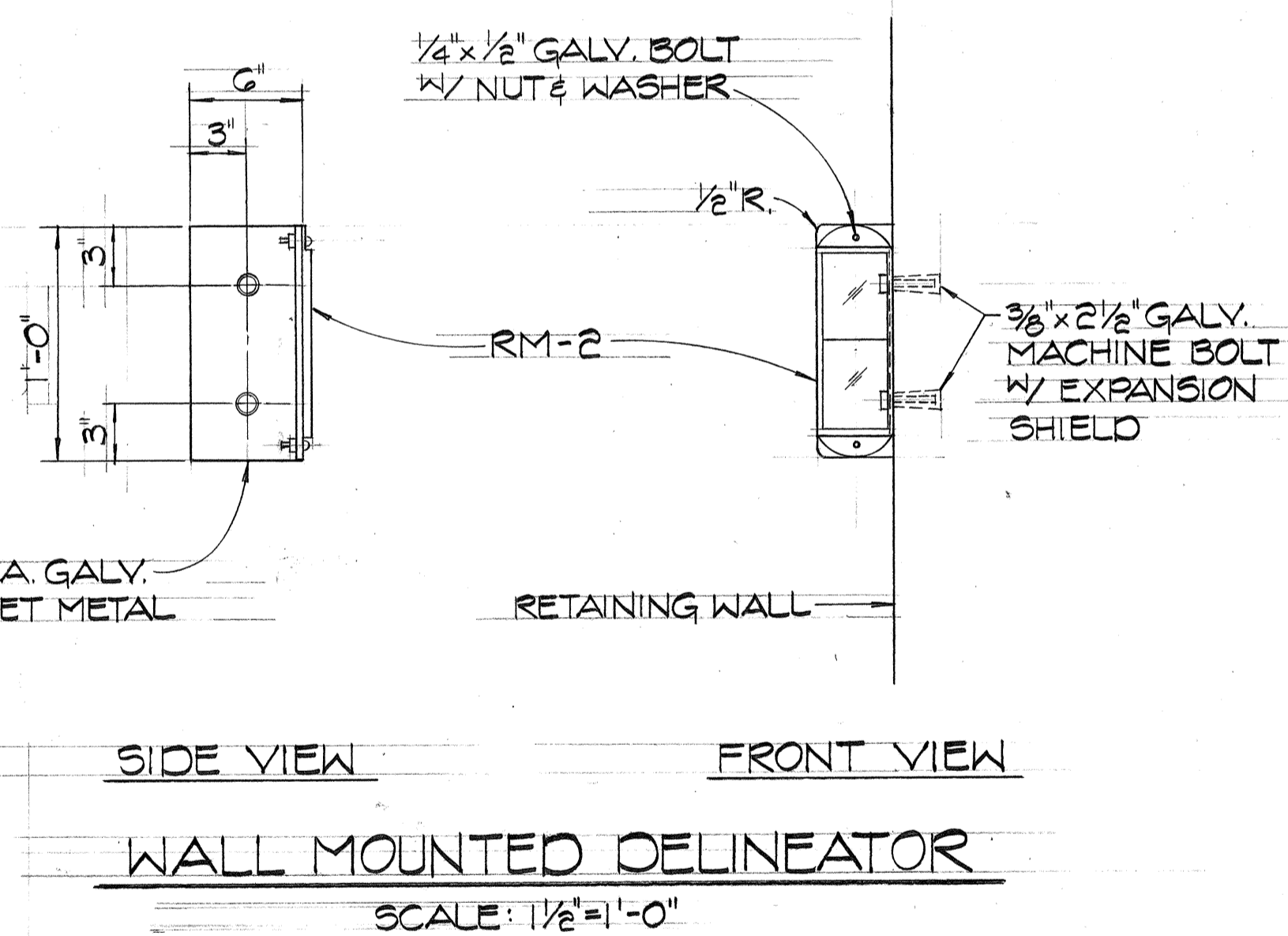


EXPRESSWAY SIGN SUMMARY

SIGN NO.	DESCRIPTION	SQ. FT.
E-4 (B)(R)	AIEA	126.50
(C)	PUULOA RD.	184.00
(D)	TRIPLER HOSP.	
	FORT SHAFTER	172.50
	AHUA ST.	
E-6	FORT SHAFTER	120.00
	AHUA ST.	
TOTAL		603.00

PERMANENT SIGNING SUMMARY

TYPE	DESCRIPTION	QUANTITY	
		W/P	WO/P
* R2-1(25)	SPEED LIMIT 25	1	1
R2-4B(30/40)A	SPEED LIMIT 50 MINIMUM 40	1	1
R3-13(R)	↑&↓ DIRECTION SIGN	1	
R5-9	WRONG WAY	1	1
R7-4-A	NO STOPPING OR STANDING	1	
* R16-5	UNLICENSED VEHICLES, BICYCLES, ETC.	2	
R18-1	USE SIDEWALK		1
W11-1	BIKE XING	1	1
W11-2	PED XING		2
W13-1(25) A	25 MPH		2
* W13-3(35)	RAMP 35 MPH	1	
D11-1	BIKE ROUTE	1	4
D11-7	↑		5
* >10 #, 4 W/P, 1 WO/P		10	18



DESTINATION SIGN SUMMARY

SIGN NO.	DESCRIPTION	SQ. FT.
D-4	AHUA ST.	
	FORT SHAFTER HQRS	68.00
	FORT SHAFTER FLATS	
D-8	MOANALUA RD.	112.00
	FORT SHAFTER	
	EXIT	36.00
TOTAL		216.00

REFLECTOR MARKERS SUMMARY

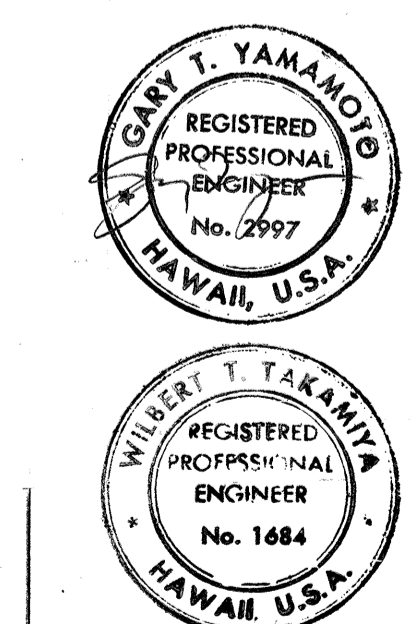
SHEET NO.	RM-2				RM-9	
	W/P	WO/P	O/B	O/W	W/P	WO/P
2	6		14		1	
3		2		10	1	
TOTAL	6	2	14	10	2	0

RAISED PAVEMENT MARKERS SUMMARY

SHEET NO.	TYPE A	TYPE C	TYPE D	TYPE H
1	308	99	0	35
2	676	307	0	145
3	580	88	0	29
TOTAL	1564	494	0	249

SURVEY PLOTTED BY: _____ DATE: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 NOTE BOOK: _____
 CHECKED BY: _____
 No. _____

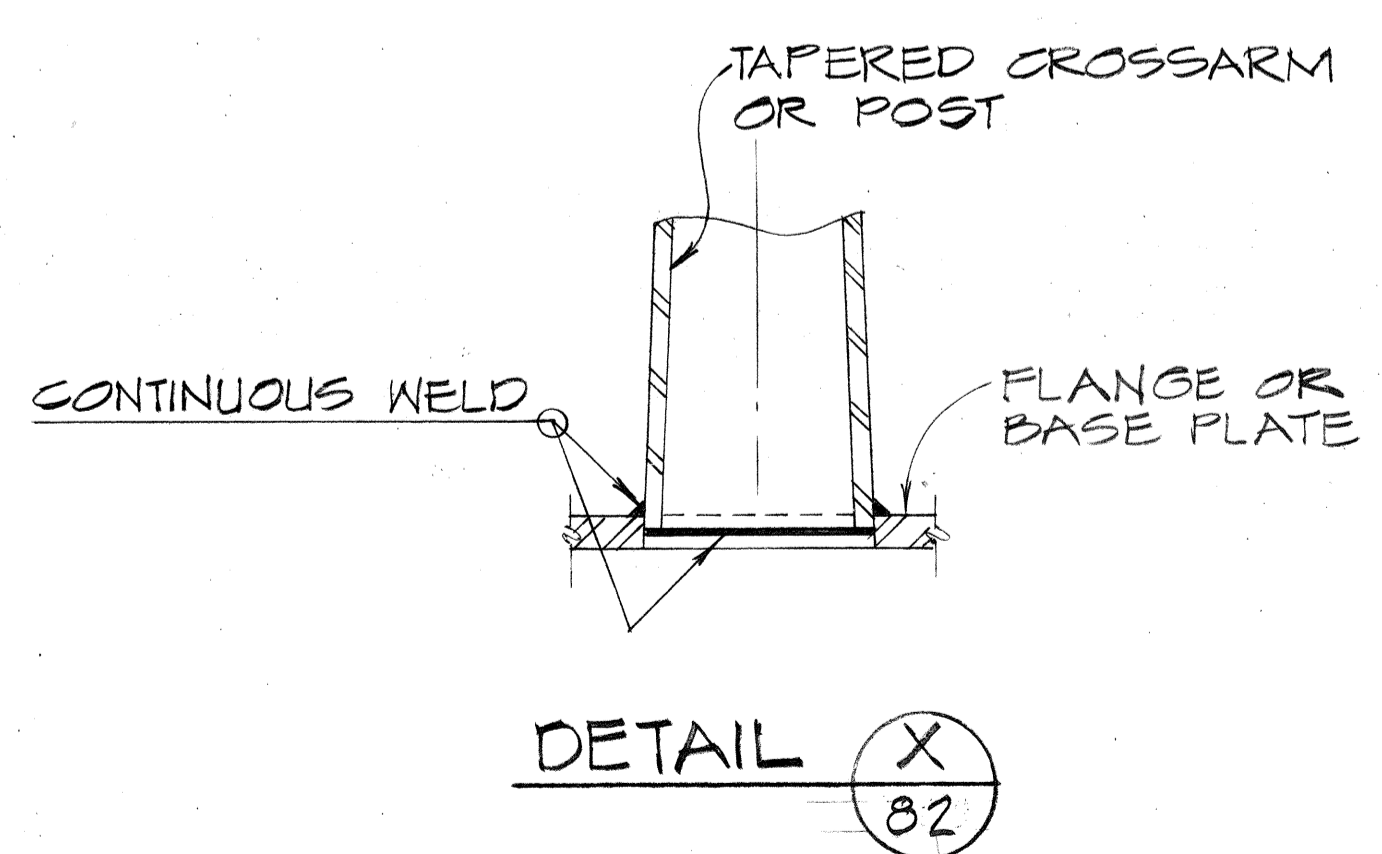
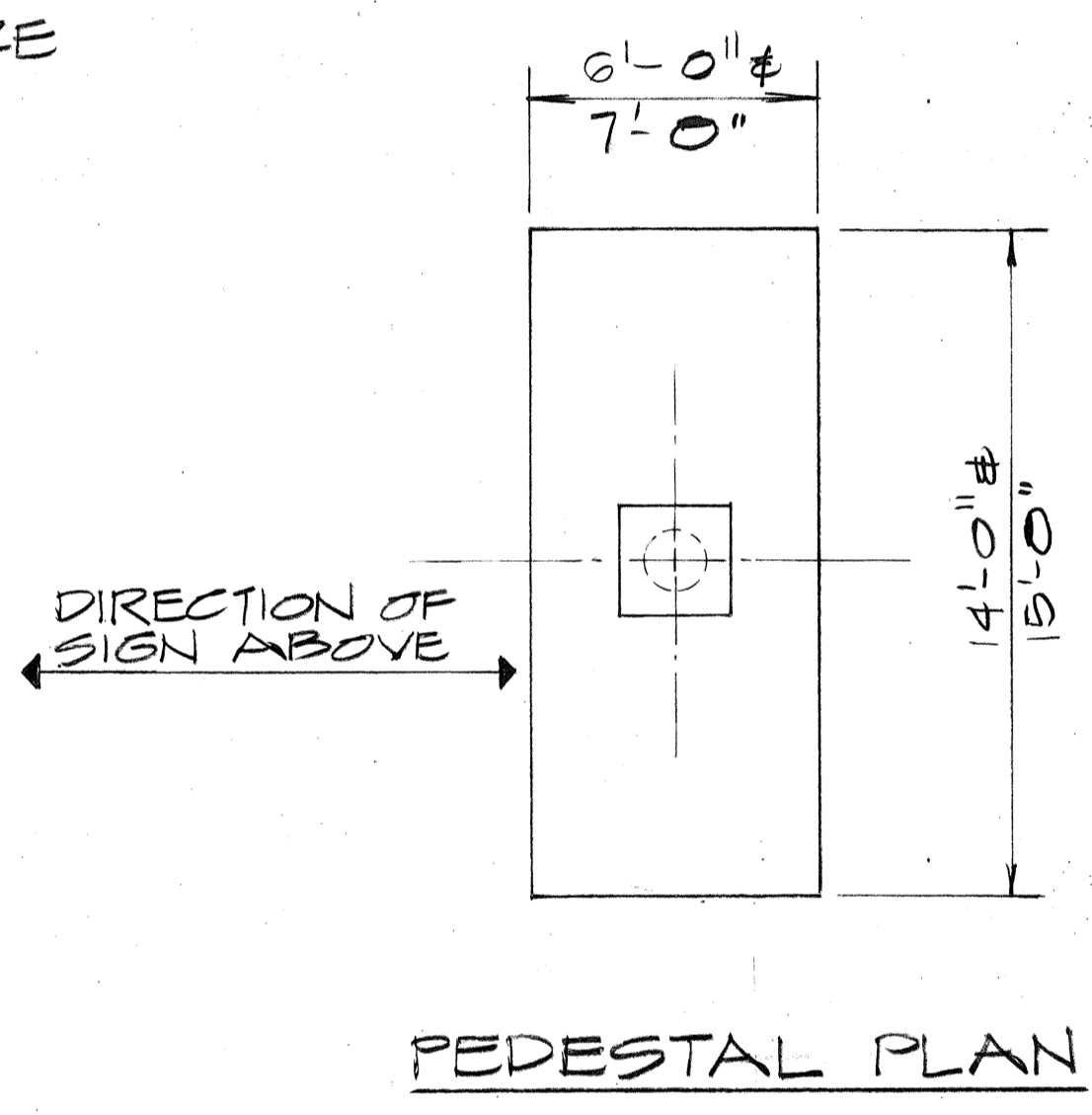
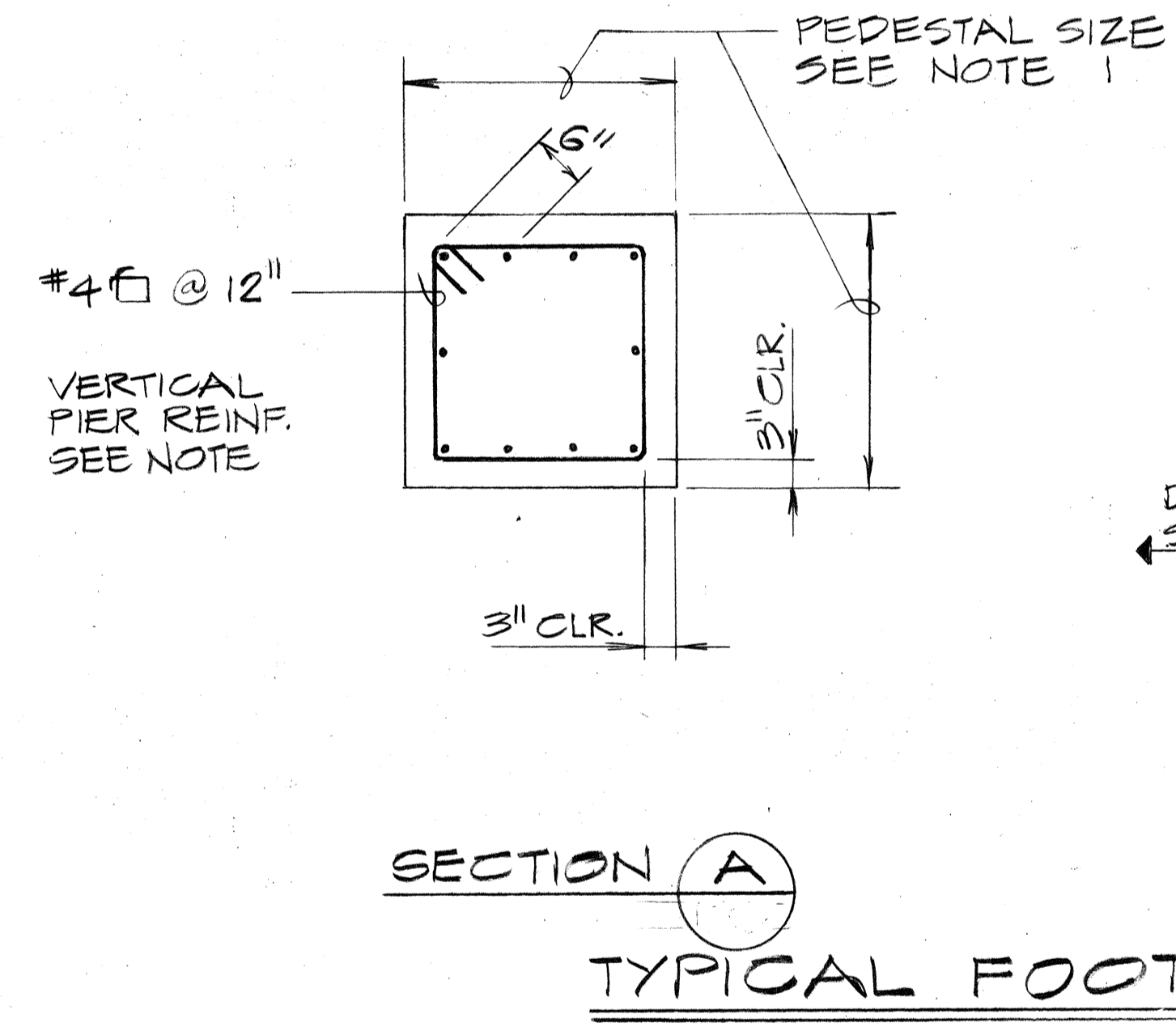
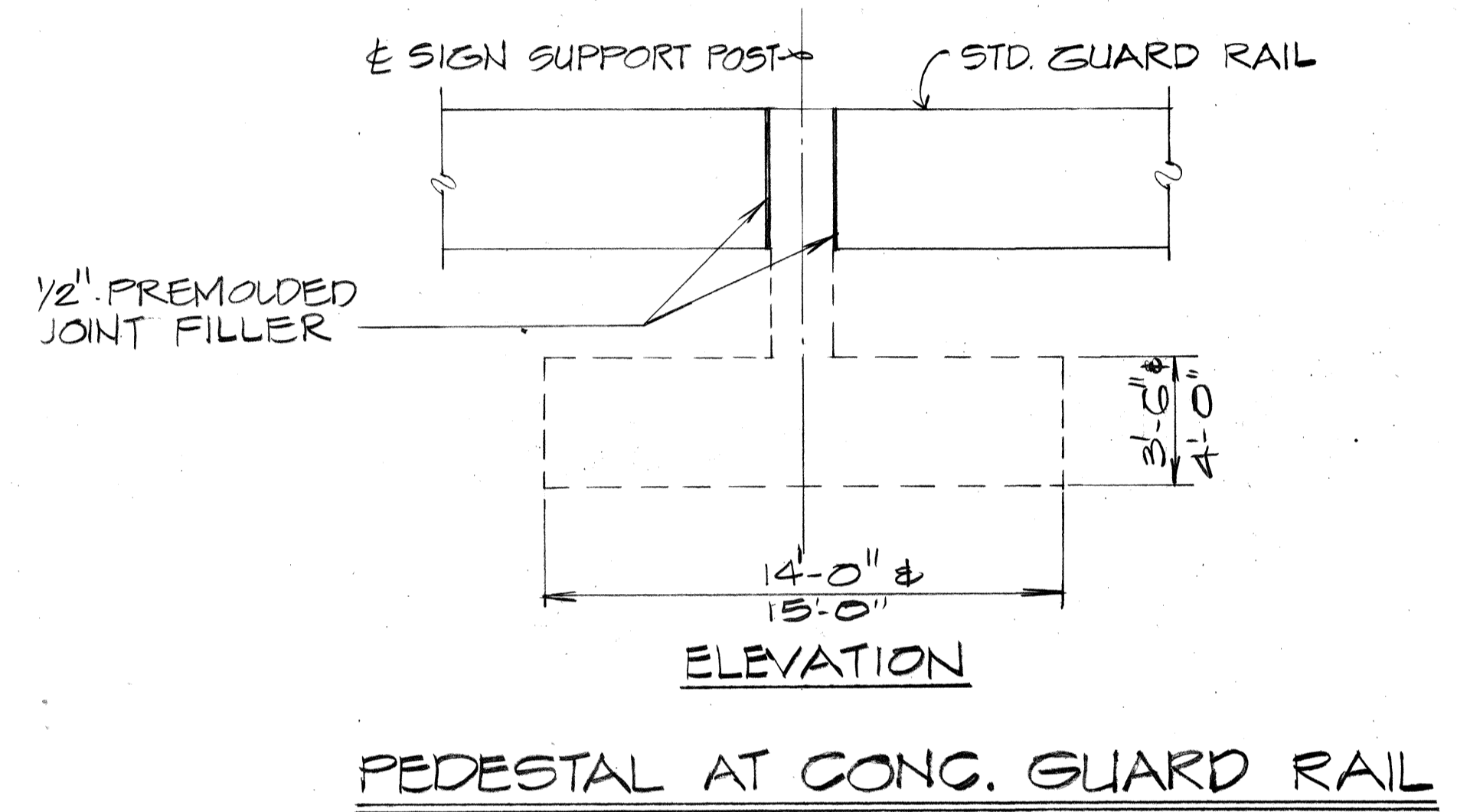
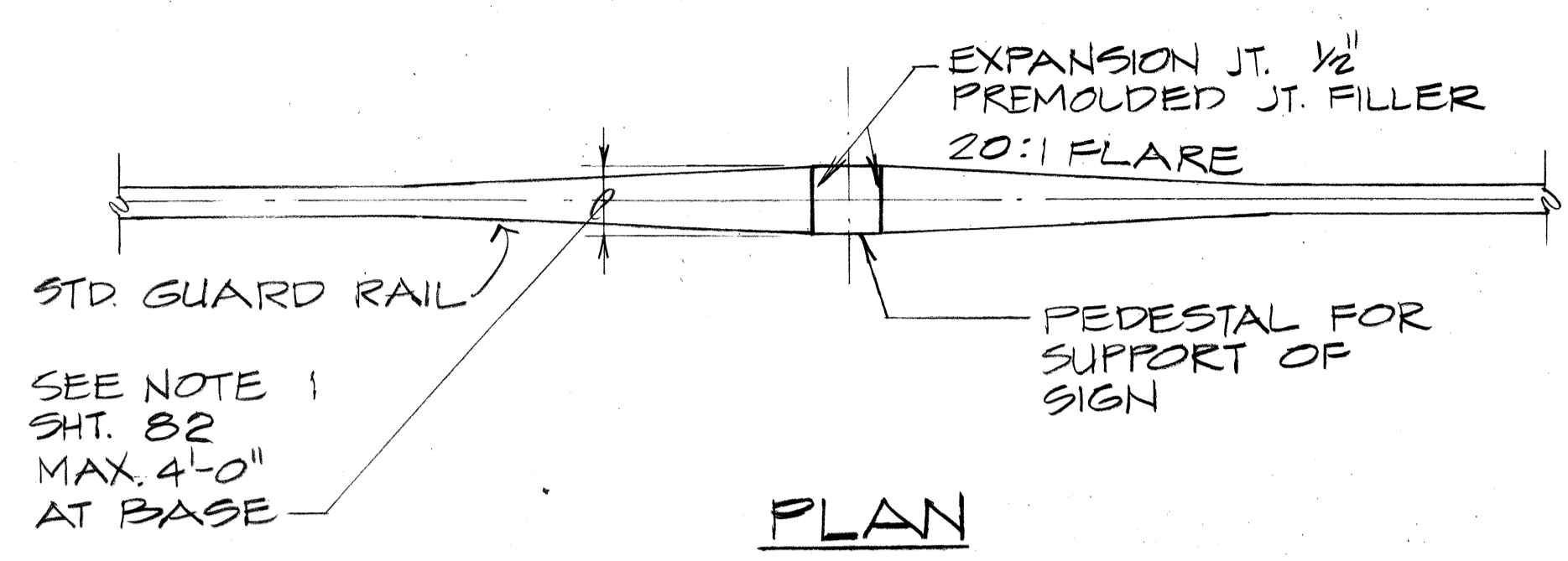
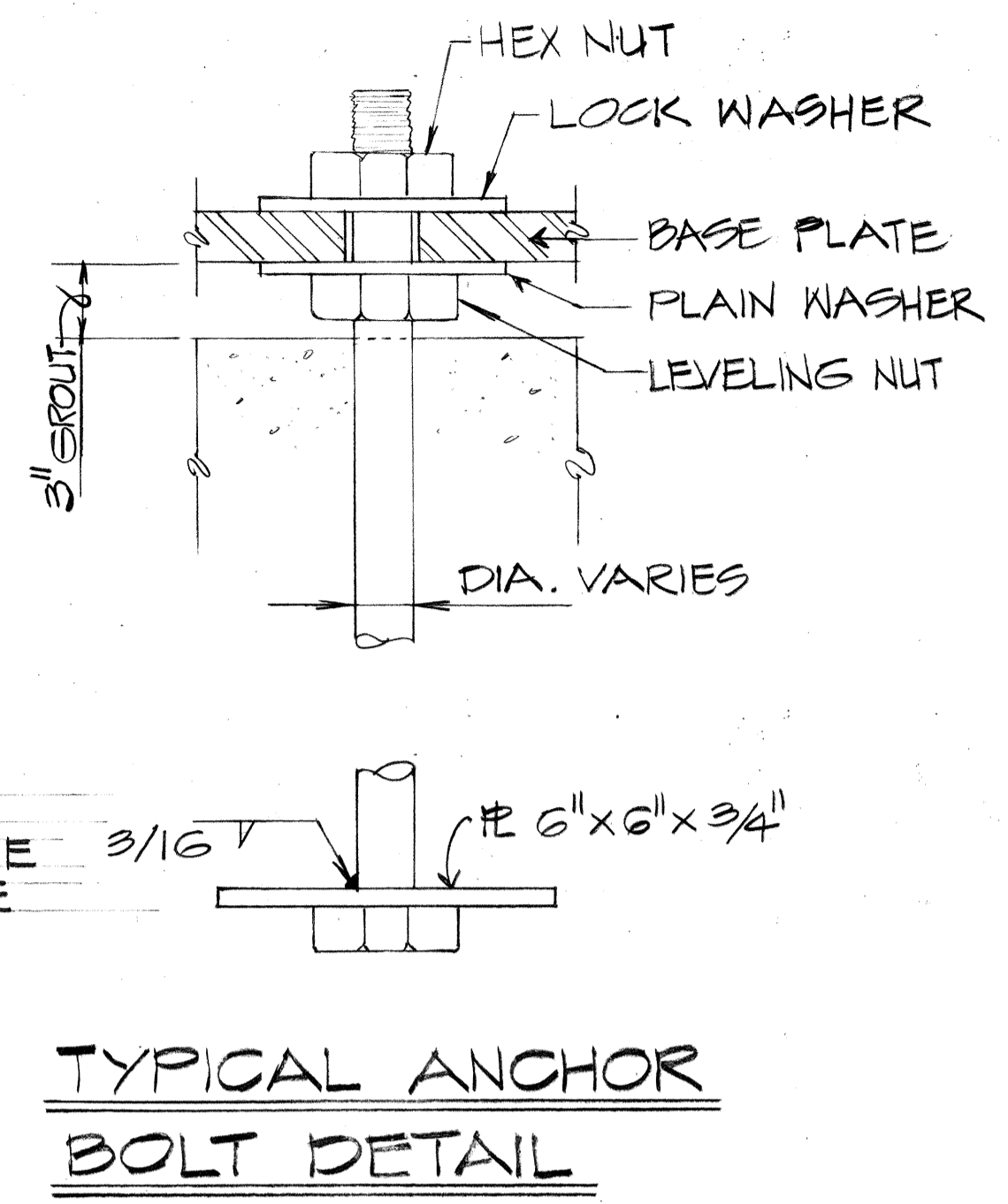
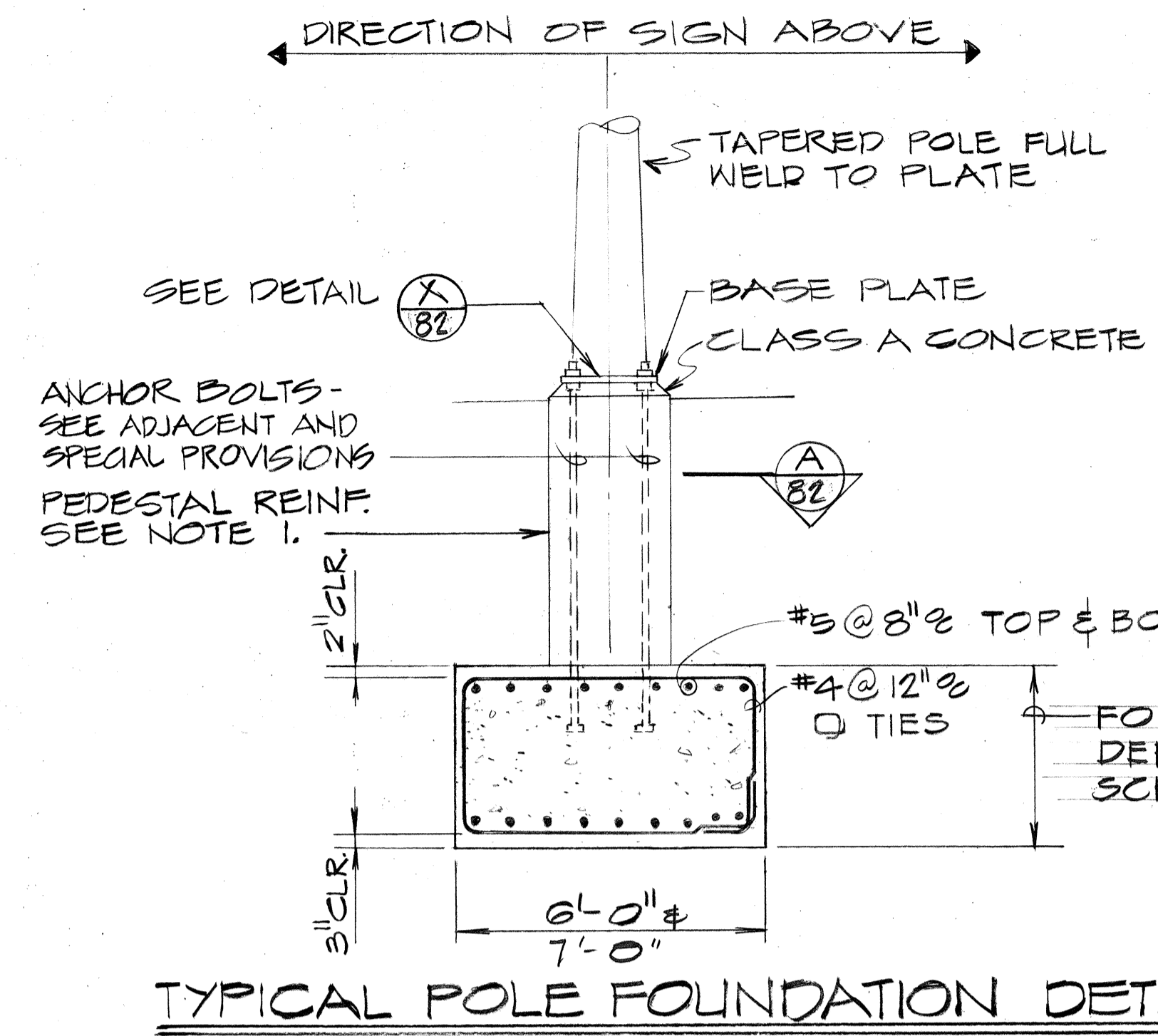
4/8/81 CHANGED QUANTITIES DUE TO DELETION OF BUS & CAR POOLS LANE SIGNS.



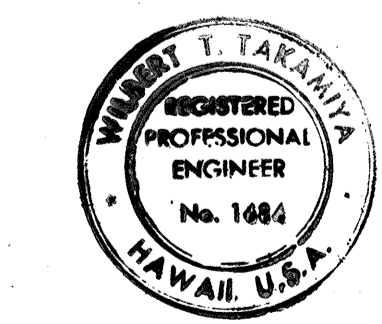
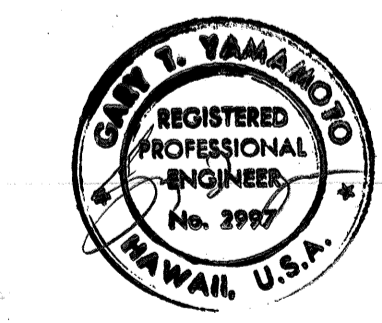
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
SIGNING & PAVEMENT MARKING
MISCELLANEOUS DETAILS
 MOANALUA ROAD
 PUULOA I.C. TO MIDDLE ST. - UNIT 3B
 P.A. Proj. No. F-07B-1(21)
 SCALE: AS SHOWN DATE: AUG 1, 1979
 SHEET NO. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(21)	1980	82	234

- NOTES:**
- EXCEPT SPECIFIED OTHERWISE, CONTRACTOR SHALL DETERMINE THE DETAIL REQUIREMENTS OF THE PEDESTAL, BASE PLATE & ANCHOR BOLTS IN ACCORD WITH TYPE OF SIGN POST SELECTED.
 - TOTAL NUMBER OF CONDUITS INTO POLE FOUNDATION AS INDICATED ON LIGHTING PLANS. CONDUITS SHALL SLOPE AWAY FROM POLE FOUNDATION. CONDUIT SHALL STUB OUT 5'-0" MIN. FOR DIRECT BURIAL ENTRY.
 - GROUNDING CONDUCTOR SHALL BE BONDED TO SIGN SUPPORT.



FOUNDATION SCHEDULE				
SIGN	SUPPORT TYPE	FOUNDATION		CLASS A CONG. OTHER THAN IN BRIDGES ITEM NO. 303.0000 (CU. YD.)
		L X W	DEPTH	
E-4	D OR F	7' x 15'	3'-6"	17.5
E-6	C	6' x 14'	4'-0"	12.4
				29.9 TOTAL



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD SIGN SUPPORT FOUNDATION DETAILS

MOANALUA ROAD
PUULOA I.C. TO MIDDLE ST.-UNIT 35
F.A. Proj. No. F-078-1(21)
SCALE: AS SHOWN DATE: AUG. 1, 1979
SHEET NO. 1 OF 1 SHEETS

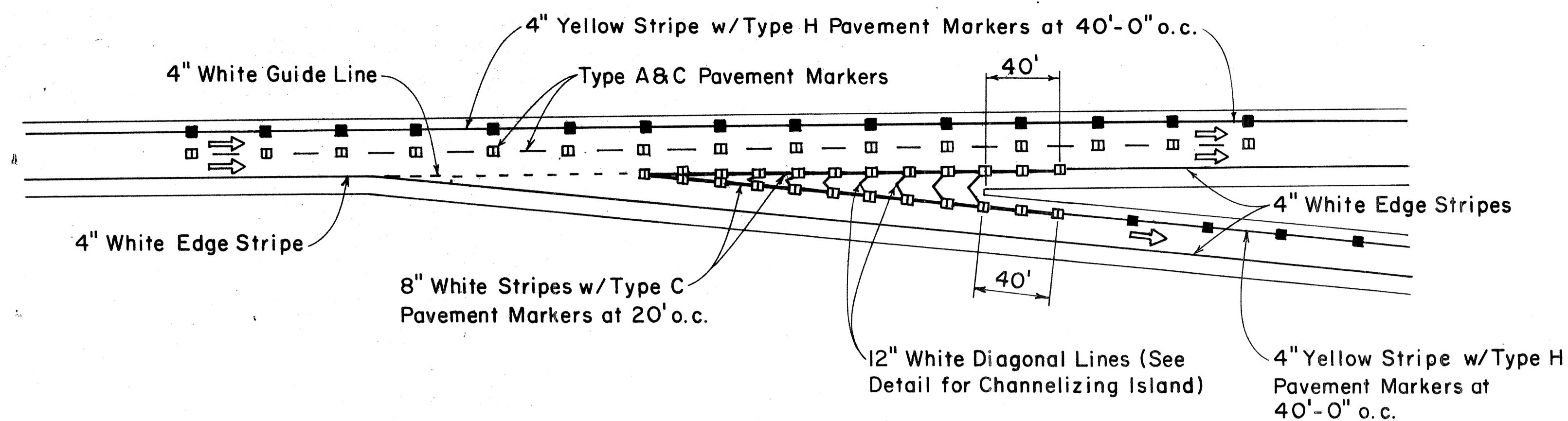
DATE _____
SURVEY PLOTTED BY _____
ORIGINAL DRAWN BY _____
FRACED BY _____
NOTE BOOK DESIGNED BY _____
NO. CHECKED BY _____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F078-1(2)	1980	83	234

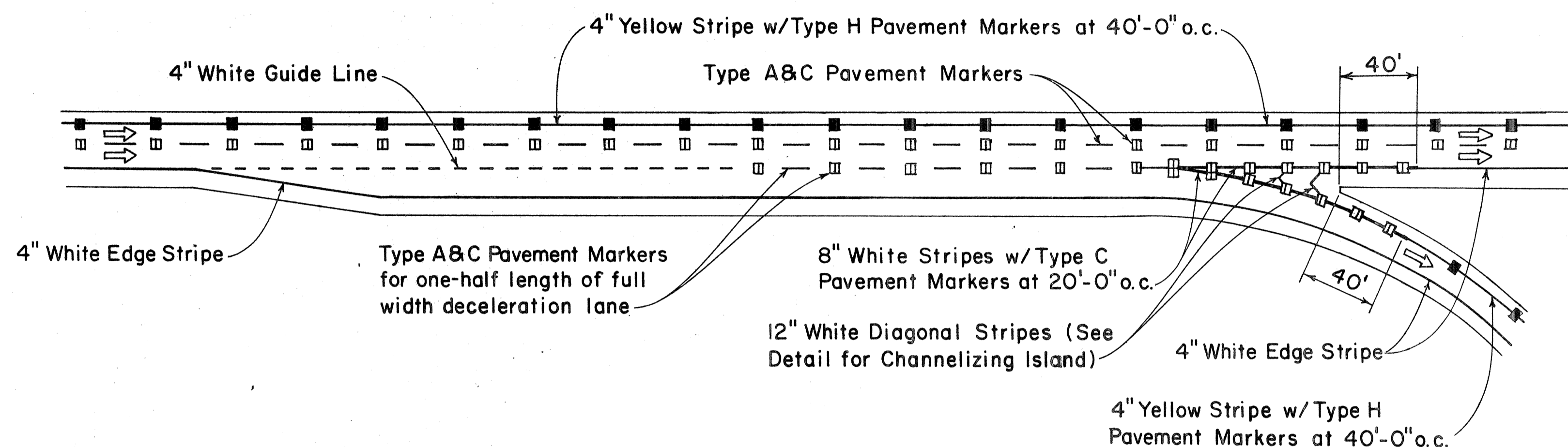
GENERAL NOTES:

1. Pavement Markings 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 details, see sheet DT 300.

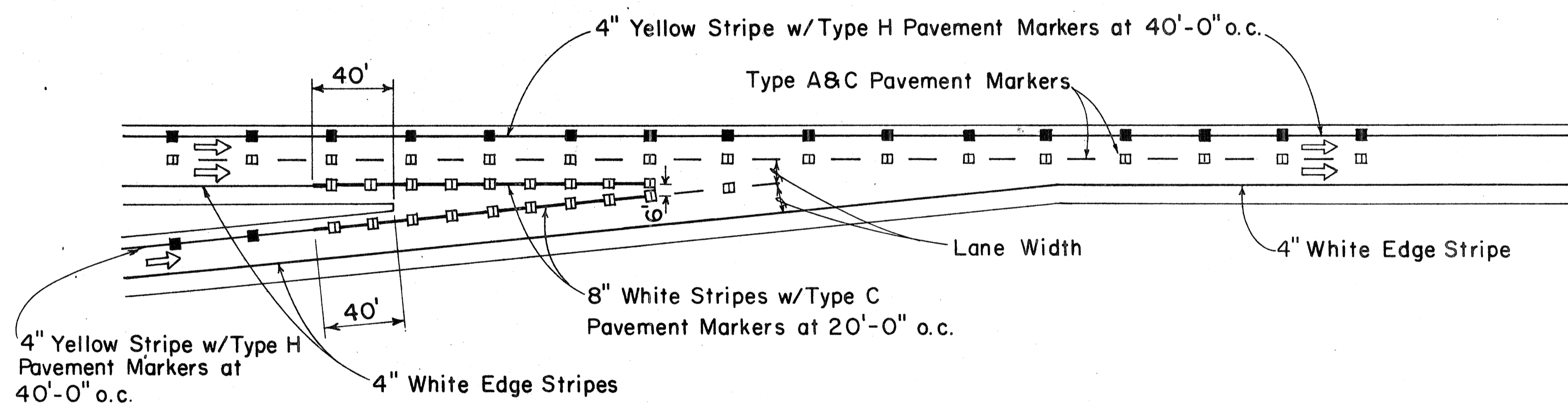
TAPERED DECELERATION LANE



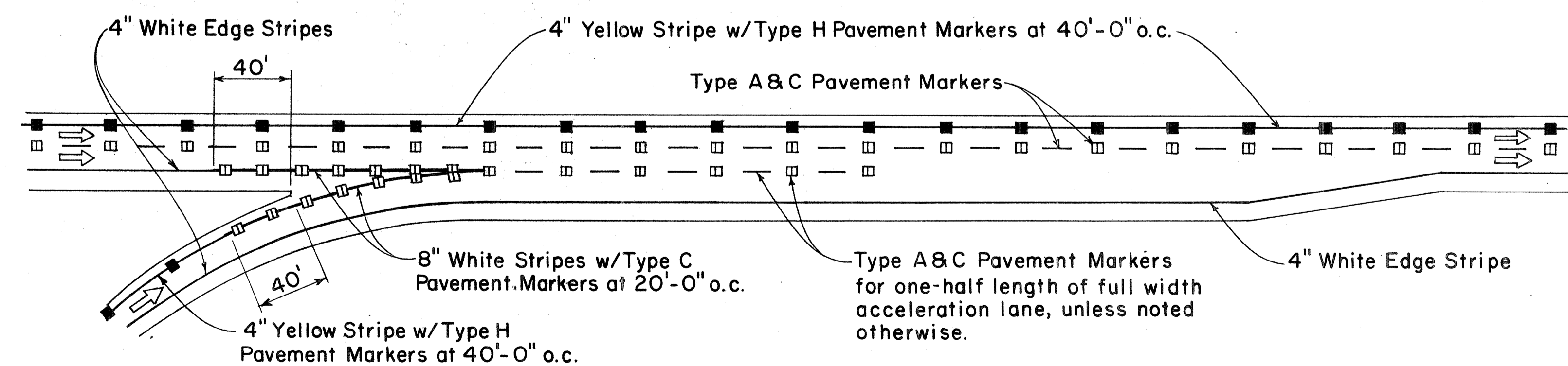
PARALLEL DECELERATION LANE



TAPERED ACCELERATION LANE



PARALLEL ACCELERATION LANE



TYPICAL ROADWAY EXIT MARKINGS

TYPICAL ROADWAY ENTRANCE MARKINGS

APPROVAL RECOMMENDED:
Eiichi Tanaka 7/21/78
 TRAFFIC ENGINEER DATE

APPROVED:
Harbert S. Sakai 7/24/78
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

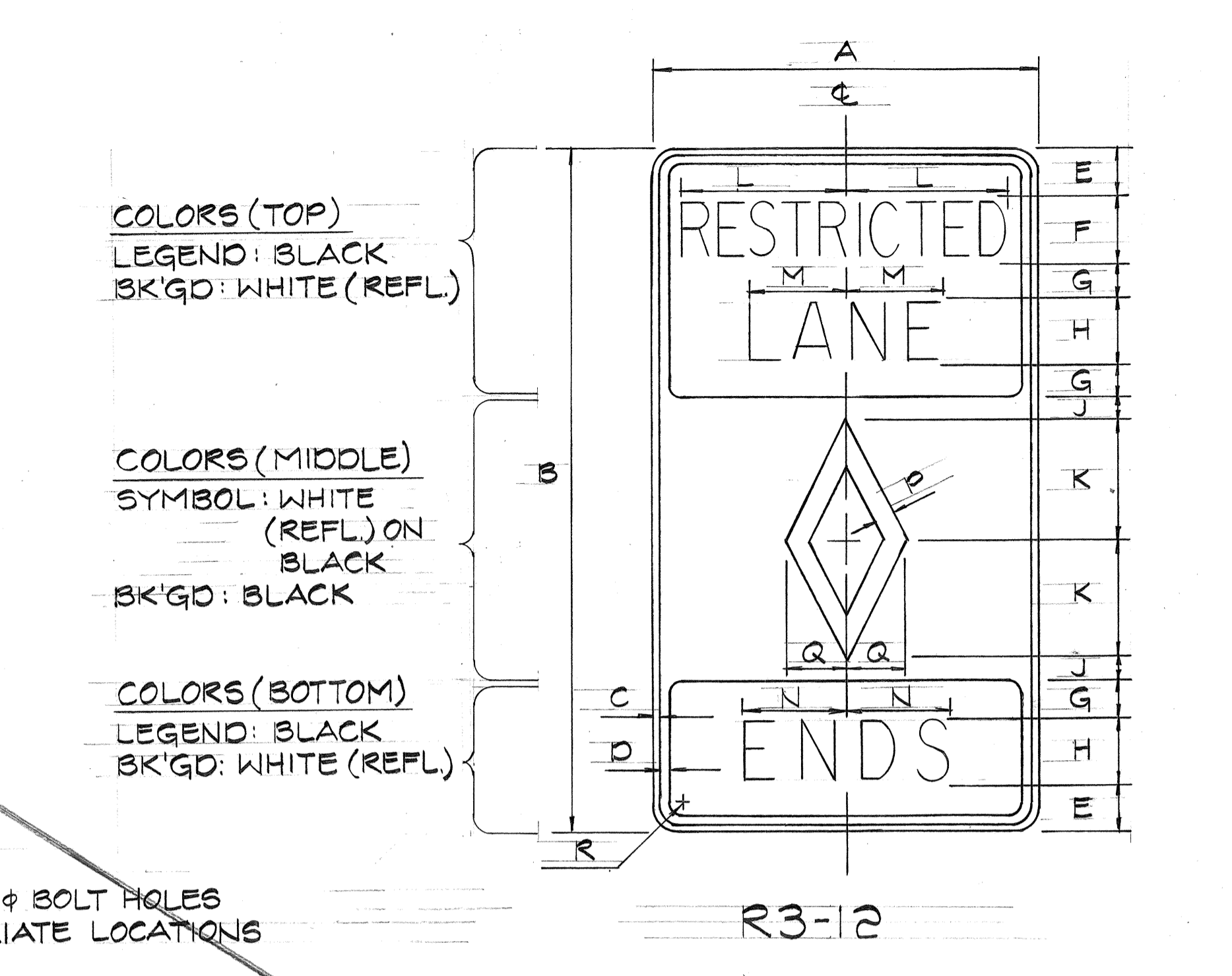
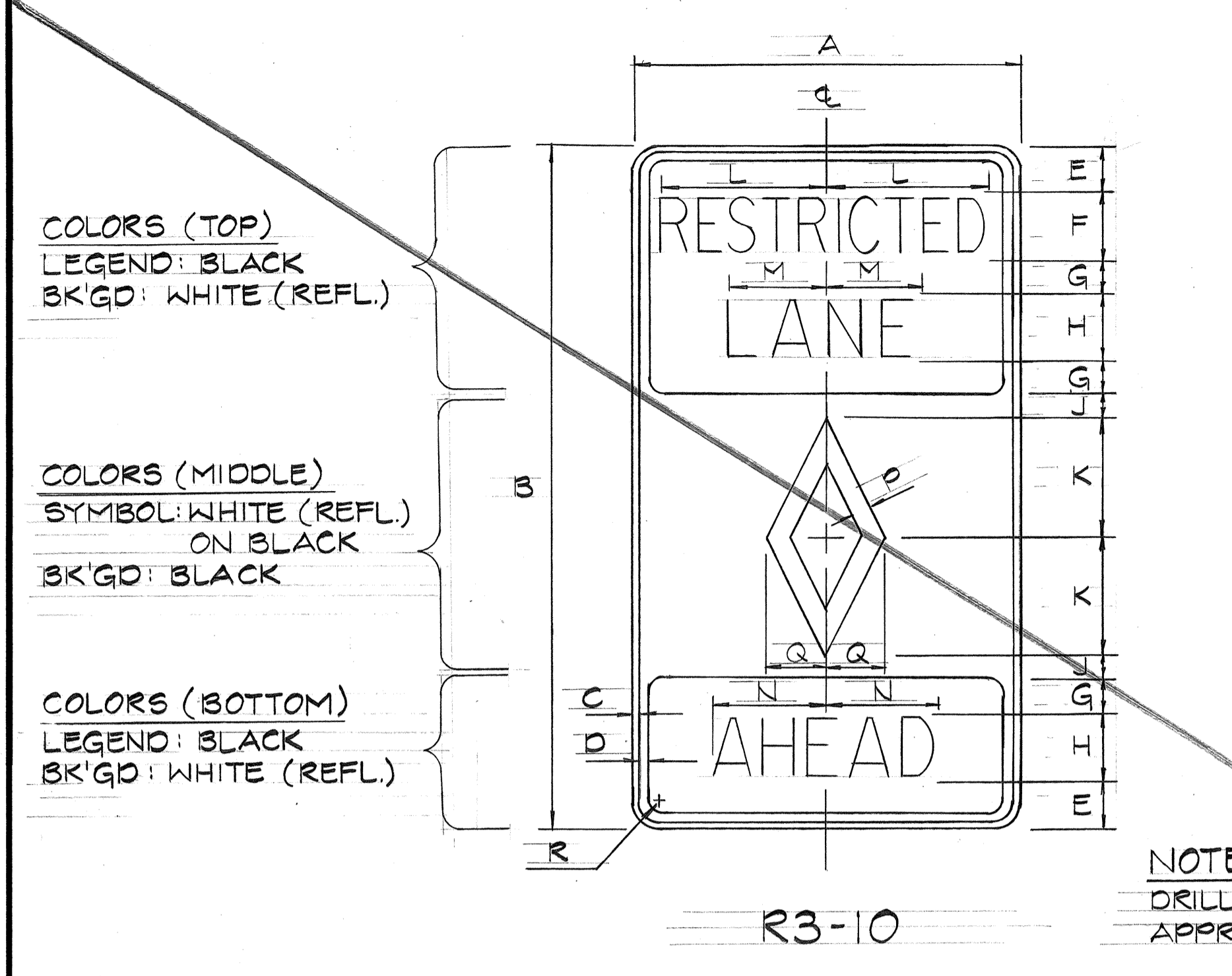
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS
PAVEMENT MARKINGS

Not to Scale July 1978
 SHEET NO. 1 OF 24 SHEETS DT 304

SURVEY BY: _____ DATE: _____
 ORIGINAL PLAN: _____
 DRAWN BY: _____
 TRACED BY: _____
 NOTE BOOK: _____
 DESIGNED BY: _____
 QUANTITIES BY: _____
 CHECKED BY: _____
 No. _____

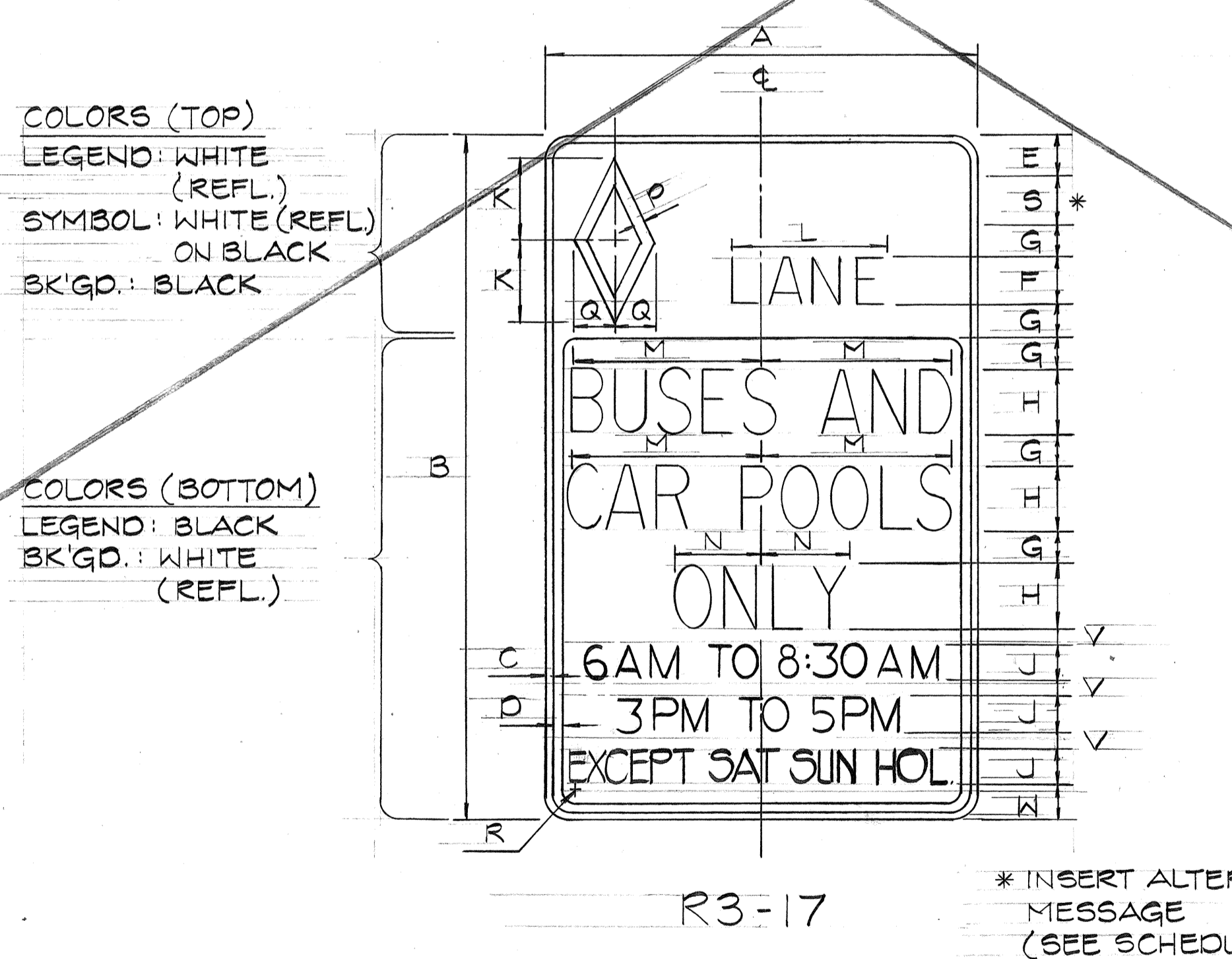
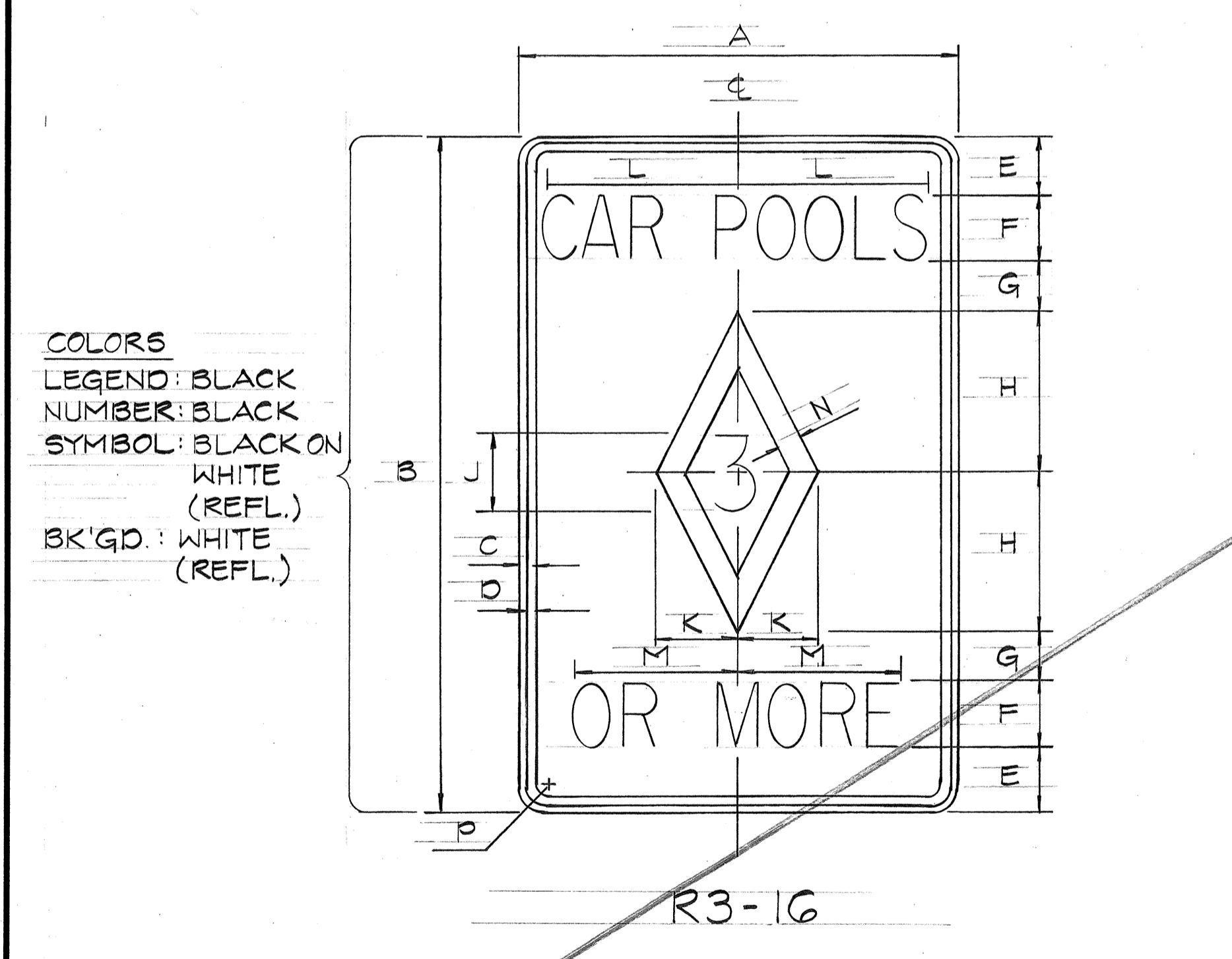
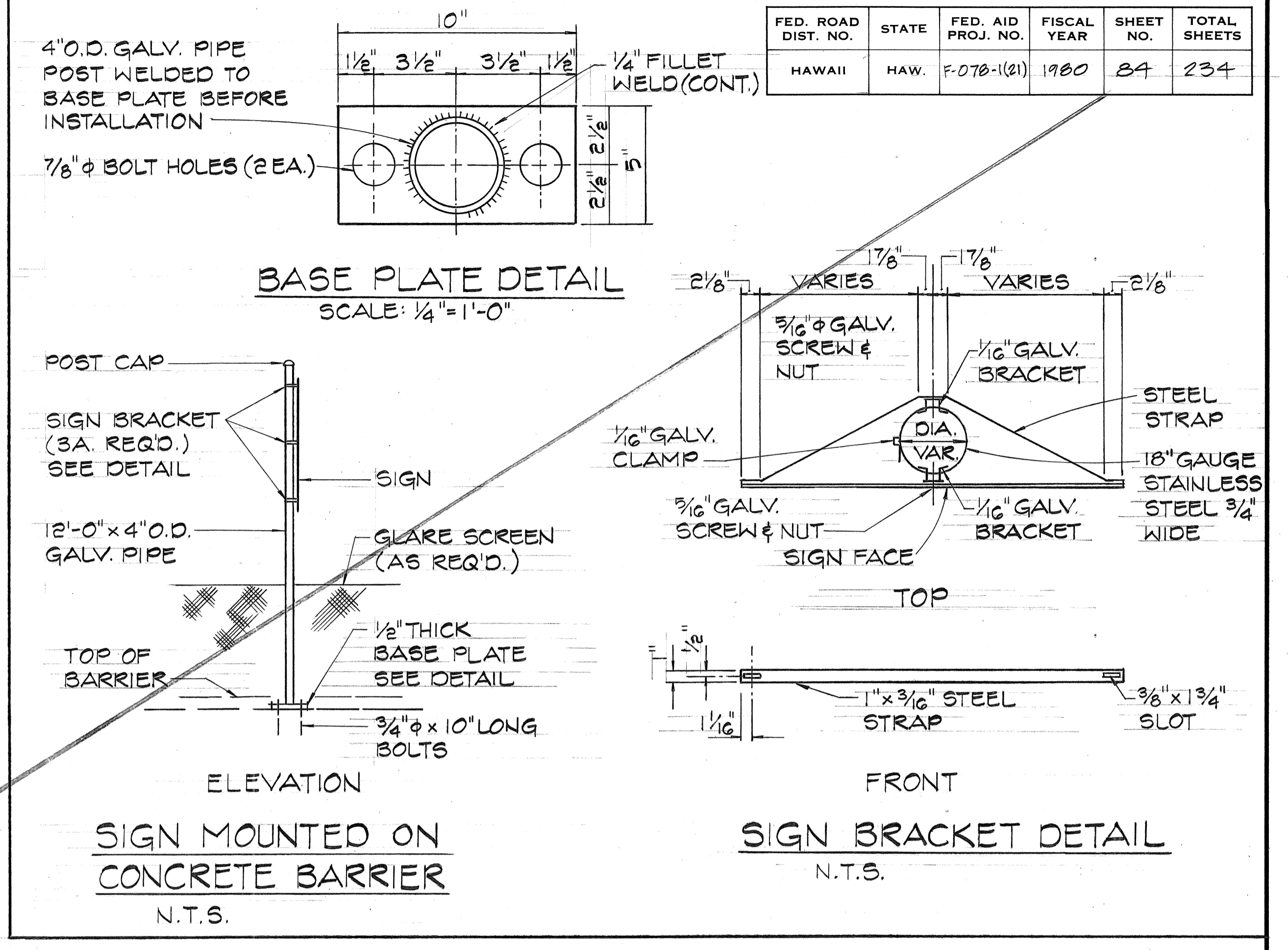
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(21)	1980	84	234



NOTE:
DRILL 3/8" φ BOLT HOLES
APPROPRIATE LOCATIONS

SIGN	DIMENSIONS (INCHES)																
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	
R3-10	30	42	1/2	3/4	3/4	4B	2	4C	1 1/4	7 1/2	10 3/8	G	8 3/4	1 1/8	3 3/4	1 7/8	
R3-10-A	36	60	3/8	7/8	4 1/2	6B	3	6C	2	10	15 1/2	9	10 1/2	1 1/2	5	2 1/4	

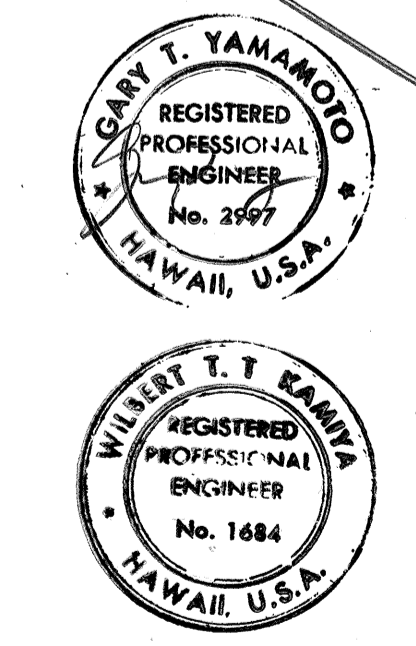
SIGN	DIMENSIONS (INCHES)																
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	
R3-12	30	42	1/2	3/4	3/4	4B	2	4C	1 1/4	7 1/2	10 3/8	G	6 1/2	1 1/8	3 3/4	1 7/8	
R3-12-A	36	60	3/8	7/8	4 1/2	6B	3	6C	2	10	15 1/2	9	9 3/4	1 1/2	5	2 1/4	



* INSERT ALTERNATE MESSAGE
(SEE SCHEDULE)

SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
R3-16	30	42	1/2	3/4	4	4C	3	10	50	5	12	10 1/4	1 1/2	1 7/8
R3-16-A	42	60	3/8	7/8	5	6C	4	15	80	7 1/2	18	16	2	2 1/4

SIGN	DIMENSIONS (INCHES)																				
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W
R3-17	30	42	1/2	3/4	2 1/2	3D	2	4C	1 1/2	5	9 3/8	12	5 1/2	3/4	2 1/2	1 7/8	3				
R3-17-A	42	60	3/8	7/8	4	4D	3	6C	15	7 1/2	12 3/4	18	8 1/4	1 1/8	3 3/4	2 1/4	4	5B	1 1/4		2 3/4



WILBERT T. KAMA
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

4/8/81 DELETED DETAILS FOR BUS & CAR POOLS SIGNS.

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DETAILS
BUS-CAR POOL SIGNS

MOANALUA ROAD
PUULOLO I.C. TO MIDDLE ST. - UNIT 3A
F.A. PROJ. NO. F-078-1(21)

SCALE: AS SHOWN DATE: AUG. 1, 1979

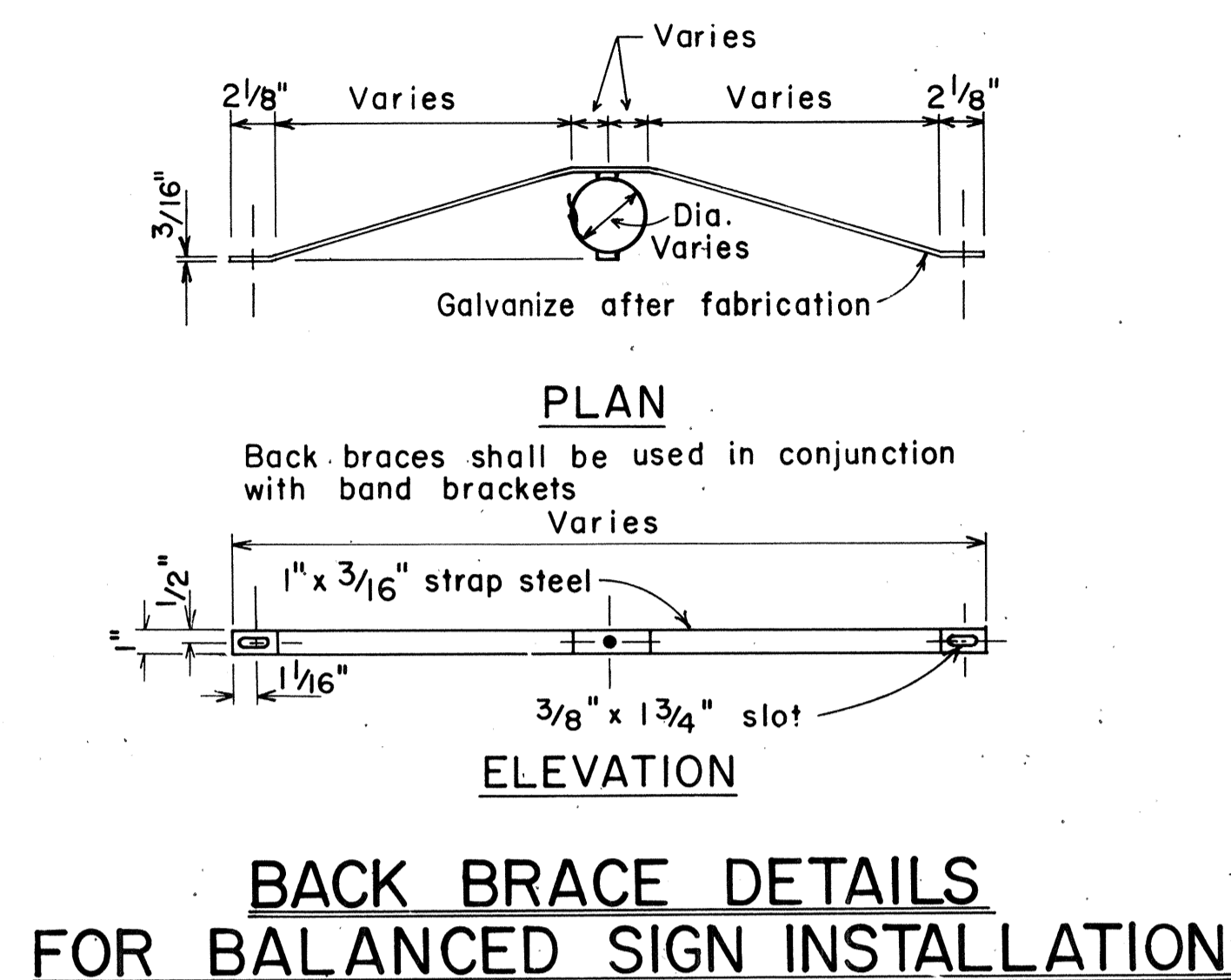
SHEET No. 2 OF 24 SHEETS

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
DESIGNED BY: _____
CHECKED BY: _____

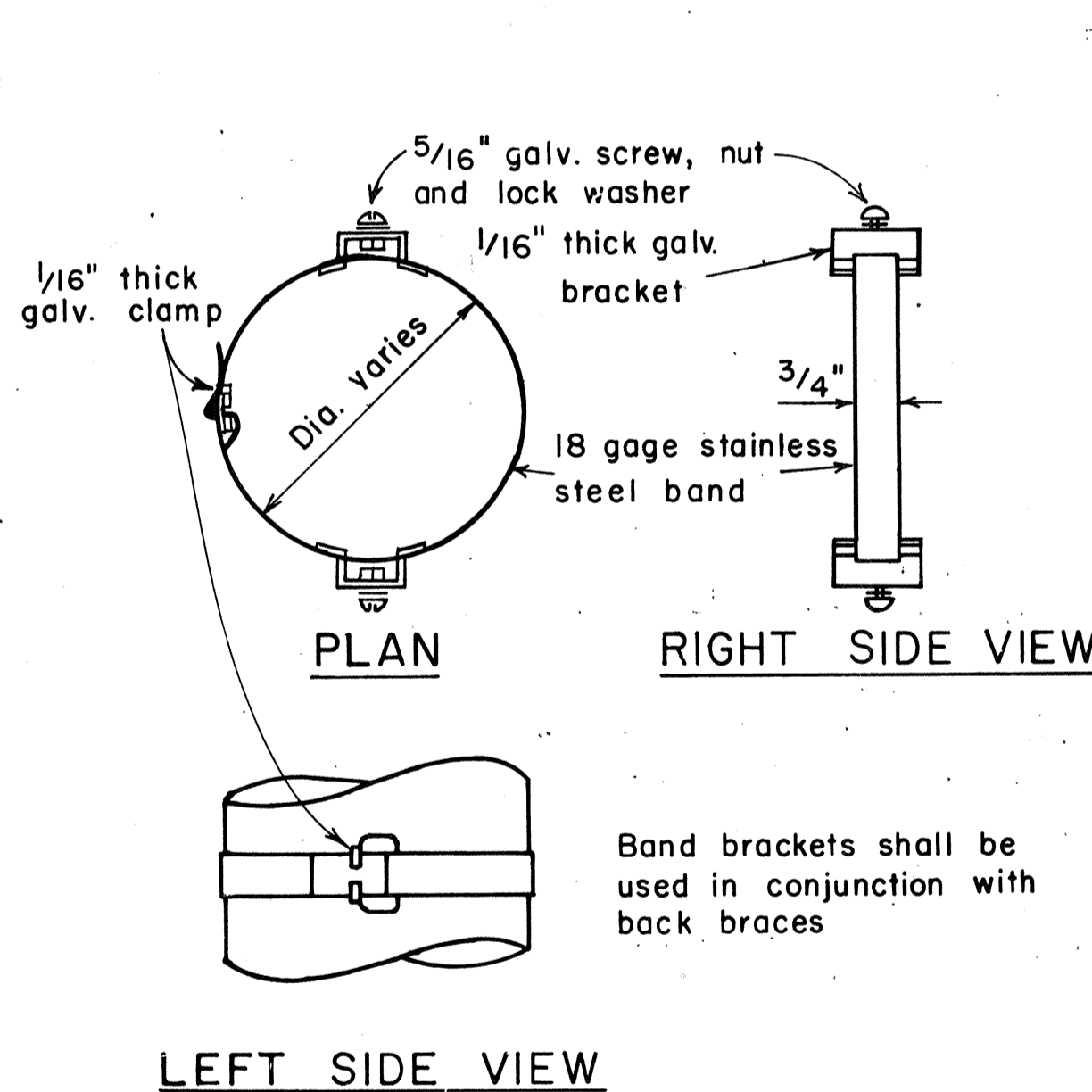
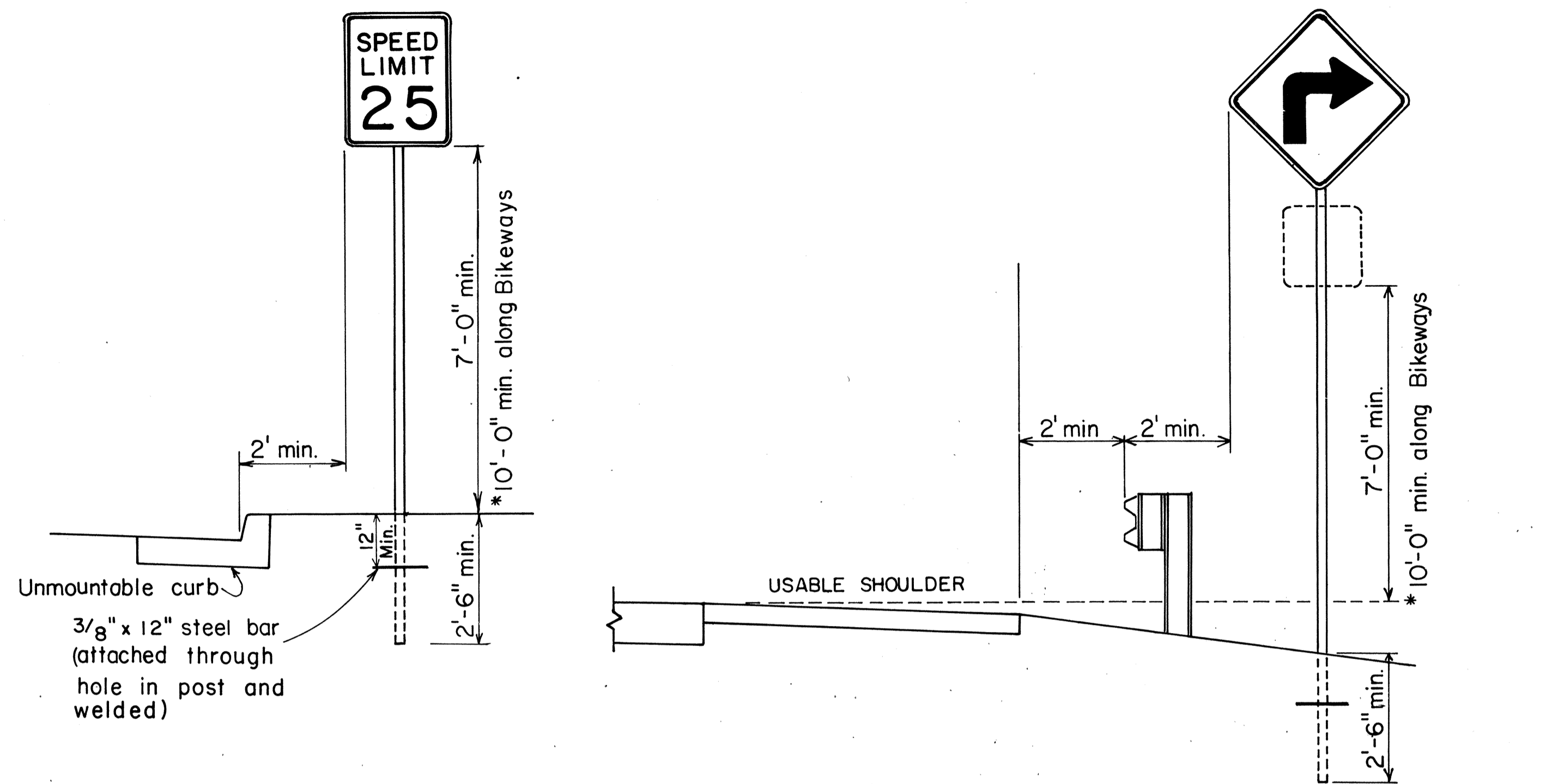
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(2)	1980	85	234

GENERAL NOTES

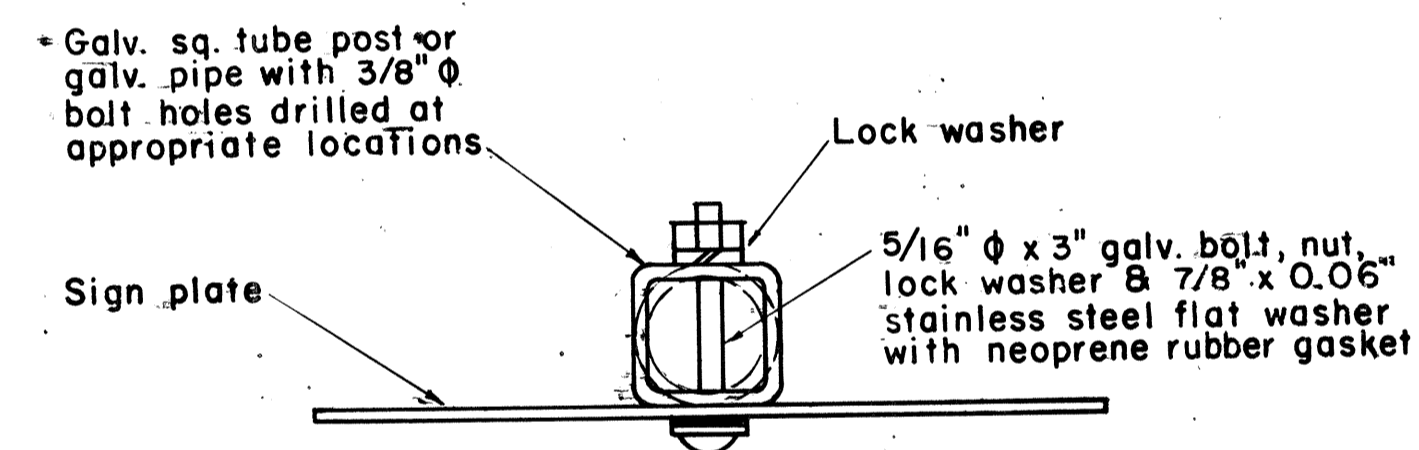
- Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two sign posts.
- All signs larger than 10 sq. ft. in area or 48" inches and wider, and mounted on other than two posts supports (i.e., on highway lighting poles) shall have at least two sets of band brackets and back braces.
- All signs 28 sq. ft. in area or larger and mounted on other than two posts supports (i.e., on highway lighting poles) shall have at least 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 sign where required for City and County street name signs.
- (R) or (L) indicates right or left and shall be as shown on the plans.
- See plans for special details.
- When clear roadside recovery areas are provided, Signs shall be placed as far from the edge of traveled way as possible up to a maximum of 30 feet. When possible they shall be placed in protected locations.
- 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.



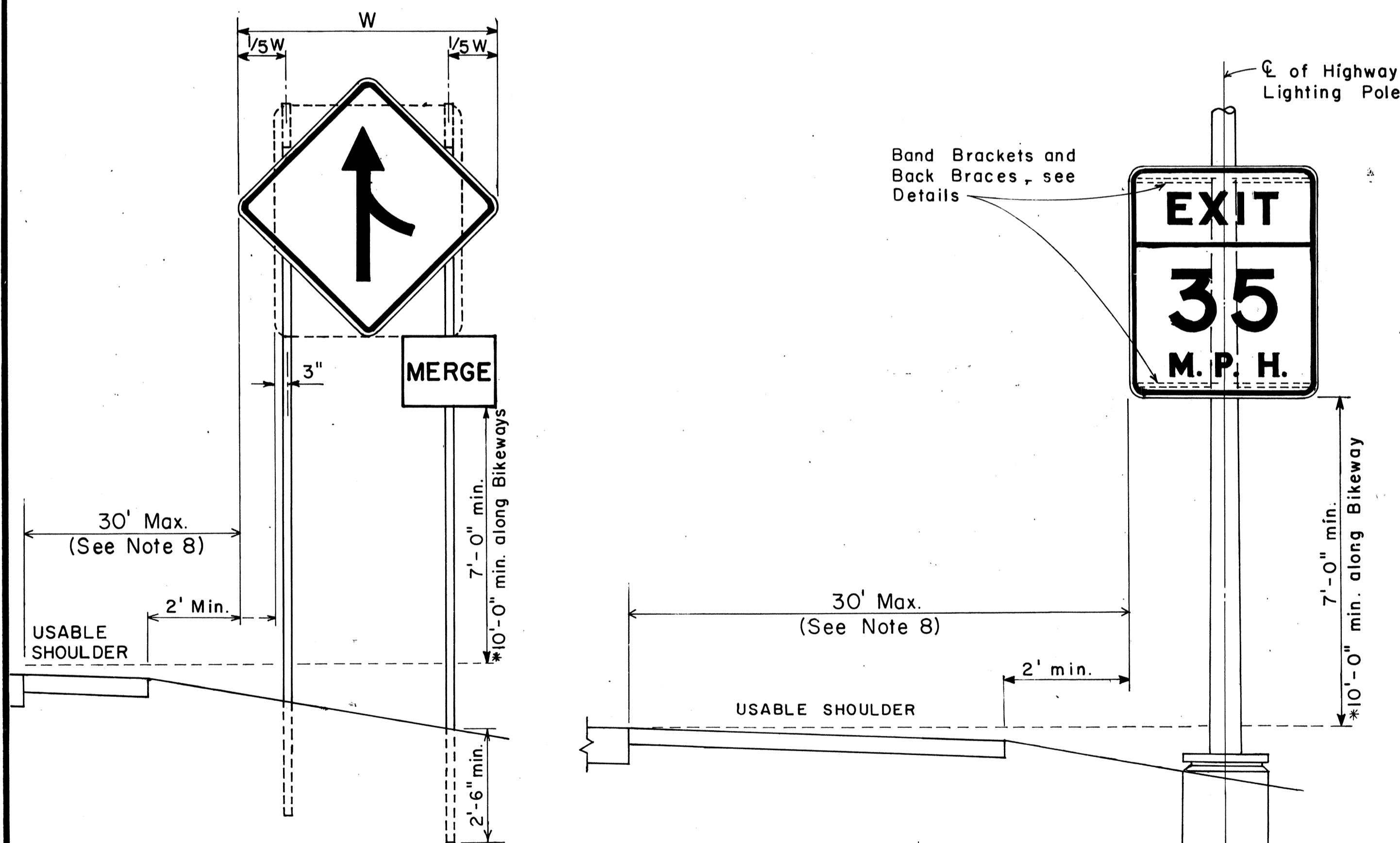
BACK BRACE DETAILS FOR BALANCED SIGN INSTALLATION



BAND BRACKET TYPICAL MOUNTING DETAILS
NOT TO SCALE



GALVANIZED SQUARE TUBE POST (OR GALVANIZED PIPE)



HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATION

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

APPROVED:
Herbert S. Sakai 11/15/77
ASSISTANT CHIEF, ENGINEERING DATE

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.	5/21/79
3	Added Notes No. 8 & No. 9	H.T.	5/18/79
4	Revised Gen. Note #4 & Mounting Details	H.T.	4/23/80

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
MISCELLANEOUS SIGN DETAILS

Not to scale June, 1977

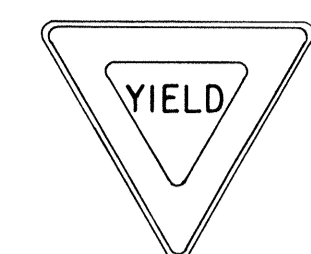
SHEET NO. 3 OF 24 SHEETS DT 100

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F078-1(21)	1980	86	234



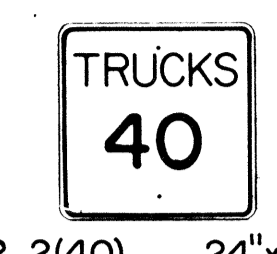
R1-1 30" x 30"
R1-1-A 36" x 36"
4-WAY
R1-3 12" x 6"
R1-3-A 18" x 9"



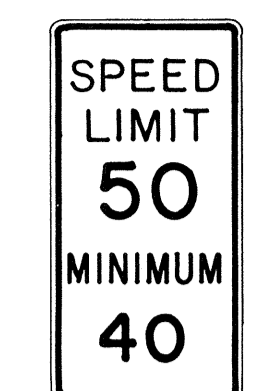
R1-2 36" x 36" x 36"
R1-2-A 48" x 48" x 48"



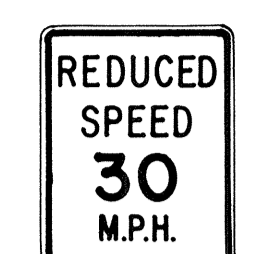
R2-1(50) 24" x 30"
R2-1(50)-A 48" x 60"



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"



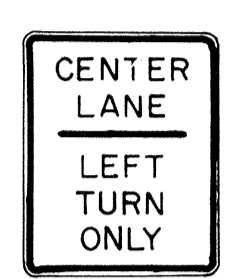
R3-6(L) 30" x 36"
R3-6(L)-A 48" x 60"



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"



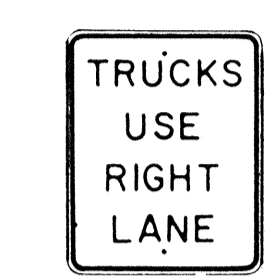
R4-1 24" x 30"



R4-2 24" x 30"



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



R4-5 24" x 30"



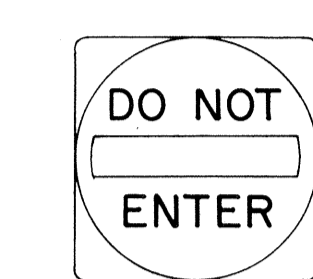
R4-6(500) 24" x 30"



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



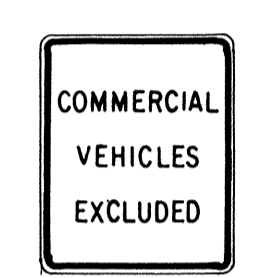
R4-8 24" x 30"
24" x 18"



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"



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



R7-108 12" x 18"



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



R8-1 24" x 30"



R8-2 24" x 30"



R8-3 24" x 30"



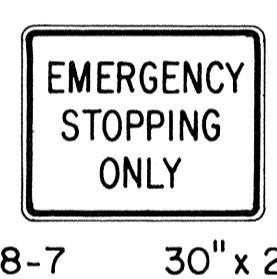
R8-4 30" x 24"
R8-4-A 48" x 36"



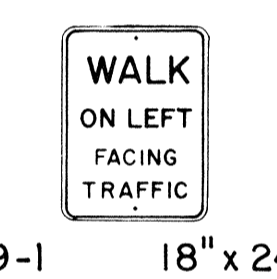
R8-5 24" x 30"



R8-6 24" x 30"



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



R9-1 18" x 24"



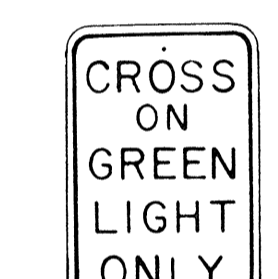
R9-2 12" x 18"



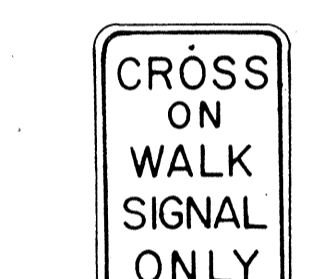
R9-3 12" x 18"



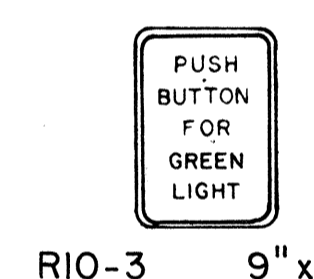
R9-4 18" x 24"



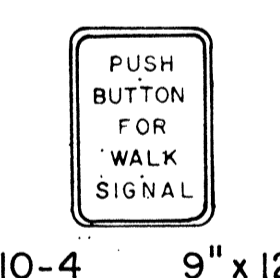
R10-1 12" x 18"



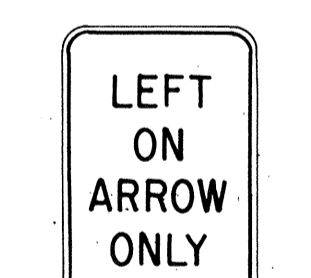
R10-2 12" x 18"



R10-3 9" x 12"



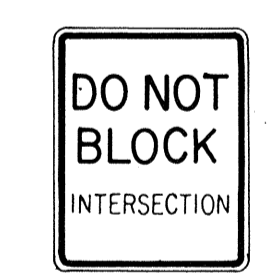
R10-4 9" x 12"



R10-5 24" x 30"



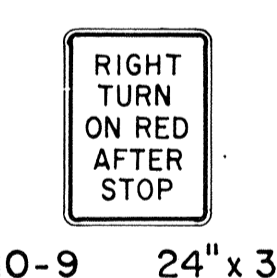
R10-6 24" x 36"



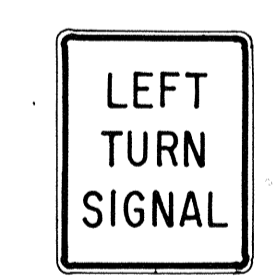
R10-7 24" x 30"



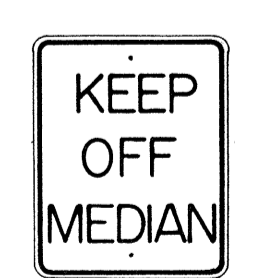
R10-8 24" x 30"



R10-9 24" x 30"



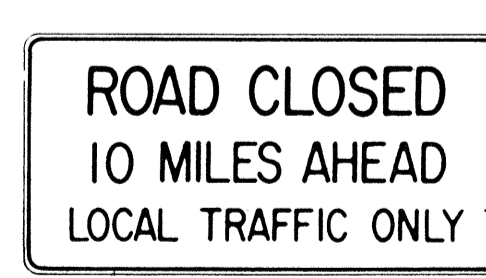
R10-10 24" x 30"



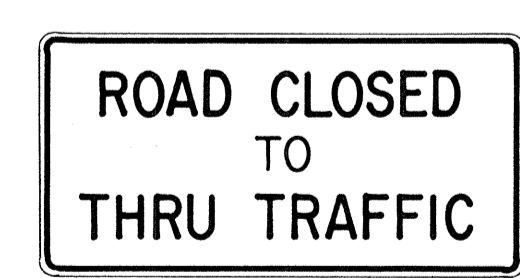
R11-1 24" x 30"



R11-2 48" x 30"



R11-3(10) 60" x 30"



R11-4 60" x 30"



R12-1(10) 24" x 30"

GENERAL NOTES

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

APPROVAL RECOMMENDED:
Richard Tanaka 3/17/72
 TRAFFIC ENGINEER DATE

APPROVED:
Robert R. ... 3-20-72
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H.I.	3/20/72
2	Revised General Note 1.	H.I.	10/14/74
3	Added General Note 5	H.I.	11/3/74

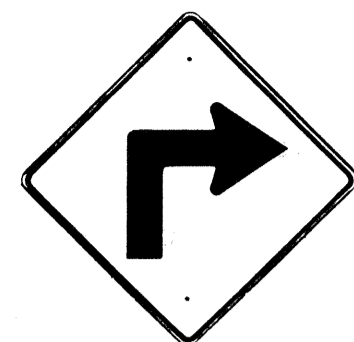
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
REGULATORY SIGNS

NOT TO SCALE

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

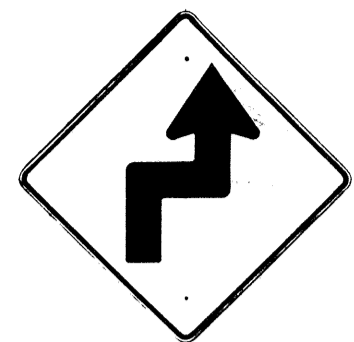
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII*	HAW.	F078-1(21)	1980	87	234



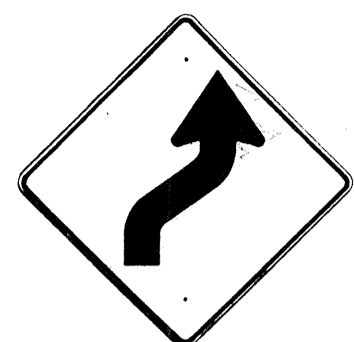
W1-1(R) 30"x30"
W1-1(R)-A 48"x48"



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



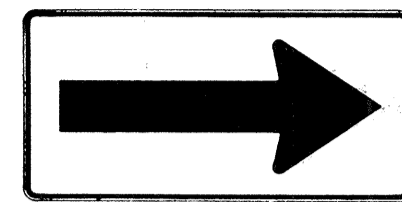
W1-3(R) 30"x30"
W1-3(R)-A 48"x48"



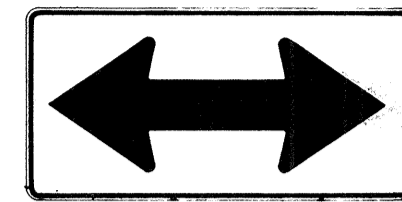
W1-4(R) 30"x30"
W1-4(R)-A 48"x48"



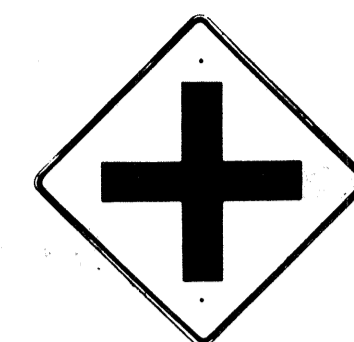
W1-5(R) 30"x30"
W1-5(R)-A 48"x48"



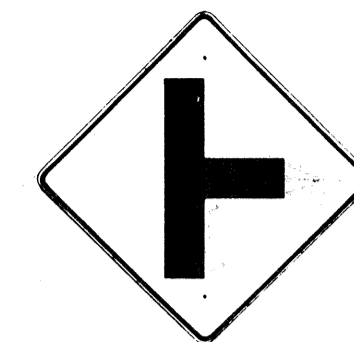
W1-6 48"x24"



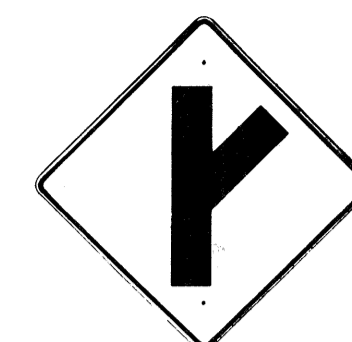
W1-7 48"x24"



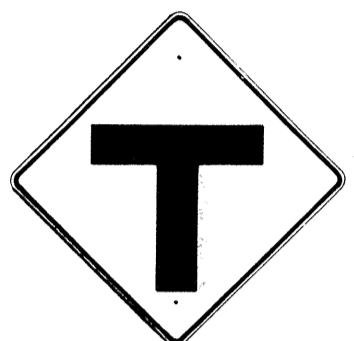
W2-1 30"x30"
W2-1-A 48"x48"



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"



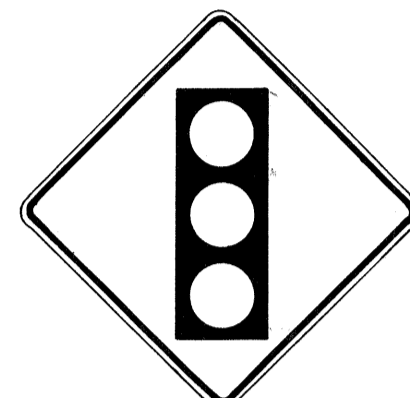
W2-5 30"x30"
W2-5-A 48"x48"



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



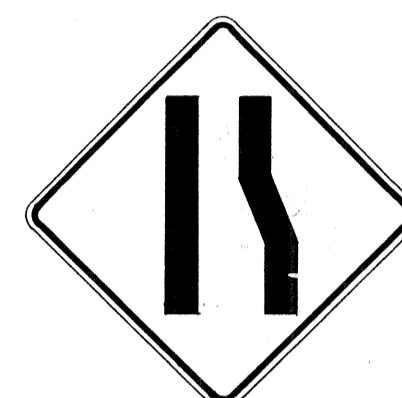
W3-2 30"x30"
W3-2-A 36"x36"



SIGNAL AHEAD
W3-3 36"x36"
24"x18"



MERGE
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"



DIVIDED HIGHWAY
W6-1 36"x36"
24"x18"



DIVIDED HIGHWAY ENDS
W6-2 36"x36"
24"x18"



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



HILL
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"



SLIPPERY WHEN WET
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



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



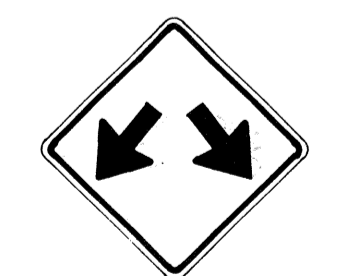
PED XING
W11-2 30"x30"
24"x18"
W11-2-A 36"x36"
24"x18"



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



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



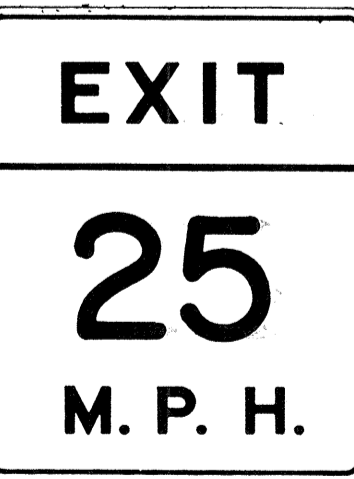
W12-1 24"x24"
W12-1-A 36"x36"
W12-1-B 48"x48"



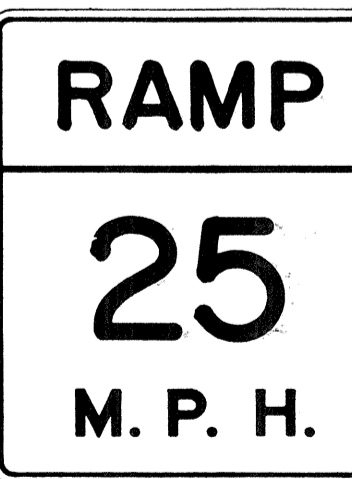
LOW CLEARANCE
W12-2(12'-6") 36"x36"
24"x18"



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"

NOTE

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

GENERAL NOTES

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

APPROVAL RECOMMENDED:
Erich Tanaka 3/17/72
TRAFFIC ENGINEER DATE

APPROVED:
John R. Sisk 3-20-72
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 102 Approved 12-30-69	H.C.	3/20/72
2	Revised General Note 1	H.C.	10/16/74
3	Revised General Note 5	M	9-16-75
4	Revised General Note 5	H.C.	9-14-76
5	Added Note 1	H.C.	1-3-77

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
WARNING SIGNS

NOT TO SCALE

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
CHECKED BY: _____
NOTE BOOK: _____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F073(21)	1980	88	234

General Notes

- Sign details shall conform to the latest editions of the following FHWA publications:
 - "Standard Alphabets for Highway Signs," and as amended.
 - "Standard Highway Signs," and as amended.
 - "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- All signs shall be reflectorized with reflective sheeting, unless otherwise specified.
- All signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations.
- Numerals in () indicate numerals to be inserted for sign message. (R) or (L) indicates right or left.
- Signs prefixed with "CW" on the plans shall indicate orange and black construction signs, and shall be reflectorized with reflective sheeting.
- All signs shall be erected without educational plaques unless called for in the plans.

ALL WAY
R1-4 18" x 6"

REDUCED SPEED
35
AHEAD
R2-5d(35) 24" x 30"
R2-5d(35)-A 48" x 60"

SPEED LIMIT ENFORCED BY VASCAR
4" Series D
- 4" Series C
- 3" Series D
- 5" Series C
R2-10 24" x 30"

CENTER LANE ONLY
R3-9b 24" x 36"

BUS STOP
R7-107(R) 12" x 24"

RESERVED PARKING
R7-8 12" x 18"
R7-8-A 24" x 30"

ANY TIME
R8-3a 24" x 24"
24" x 18"
R8-3a-A 48" x 48"

NO PED XING
R9-3a 18" x 18"
18" x 12"
R9-3a-A 24" x 24"
24" x 18"

USE CROSSWALK
R9-3b(R) 18" x 12"

USE CROSSWALK
R9-3b(L) 18" x 12"

NO TURN ON RED
R10-11a 24" x 30"

TURN RIGHT ANY TIME WITH CAUTION
4" Series C
R16-1 24" x 30"

NO LEFT TURN ON RED
- 4" Series D
- 3" Series D
- 2" Series D
- 3" Series D
R16-3 18" x 24"

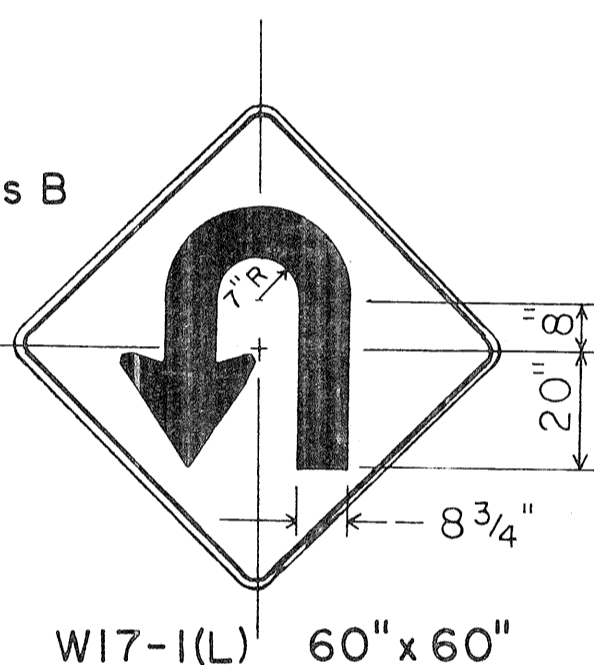
NO RIGHT TURN ON RED
R16-4 18" x 24"

UNLICENSED VEHICLES BICYCLES, CYCLES UNDER 5 H.P., PEDESTRIANS KEEP OUT FREEWAY
3" Series C
4" Series E
R16-5 36" x 42"

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

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

MOTOR-DRIVEN CYCLES PROHIBITED
4" Series B
R5-8 30" x 24"



W17-1(L) 60" x 60"

STOP AHEAD
W3-1a 36" x 36"
24" x 18"
W3-1a-A 48" x 48"
24" x 18"

YIELD AHEAD
W3-2a 36" x 36"
24" x 18"
W3-2a-A 48" x 48"
24" x 18"

STOP AHEAD WHEN FLASHING
6" Series C
W3-4 48" x 48"

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

THRU TRAFFIC MERGE LEFT
6" Series E
W9-3(L) 48" x 48"

EQUESTRIAN XING
W11-7 36" x 36"
24" x 18"
W11-7-A 48" x 48"
24" x 18"

FIRE STATION
W11-8 36" x 36"
24" x 18"
W11-8-A 48" x 48"
24" x 18"

W11-9 36" x 36"
W11-9-A 48" x 48"

LIMITED SIGHT DISTANCE
W14-4 36" x 36"
W14-4-A 48" x 48"

DELAYED GREEN
4" Series C
W15-1 24" x 24"

ADVANCE GREEN
W15-2 24" x 24"

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

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

SI-1 36" x 36"

S2-1 36" x 36"

SCHOOL BUS STOP AHEAD
S3-1 30" x 30"

8:00 AM TO 3:30 PM
S4-1 24" x 10"
WHEN CHILDREN ARE PRESENT
S4-2 24" x 10"

SCHOOL
S4-3 24" x 8"
WHEN FLASHING
S4-4 24" x 10"

SIDEWALK CLOSED
7" Series D
CW23-4 48" x 48"

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

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

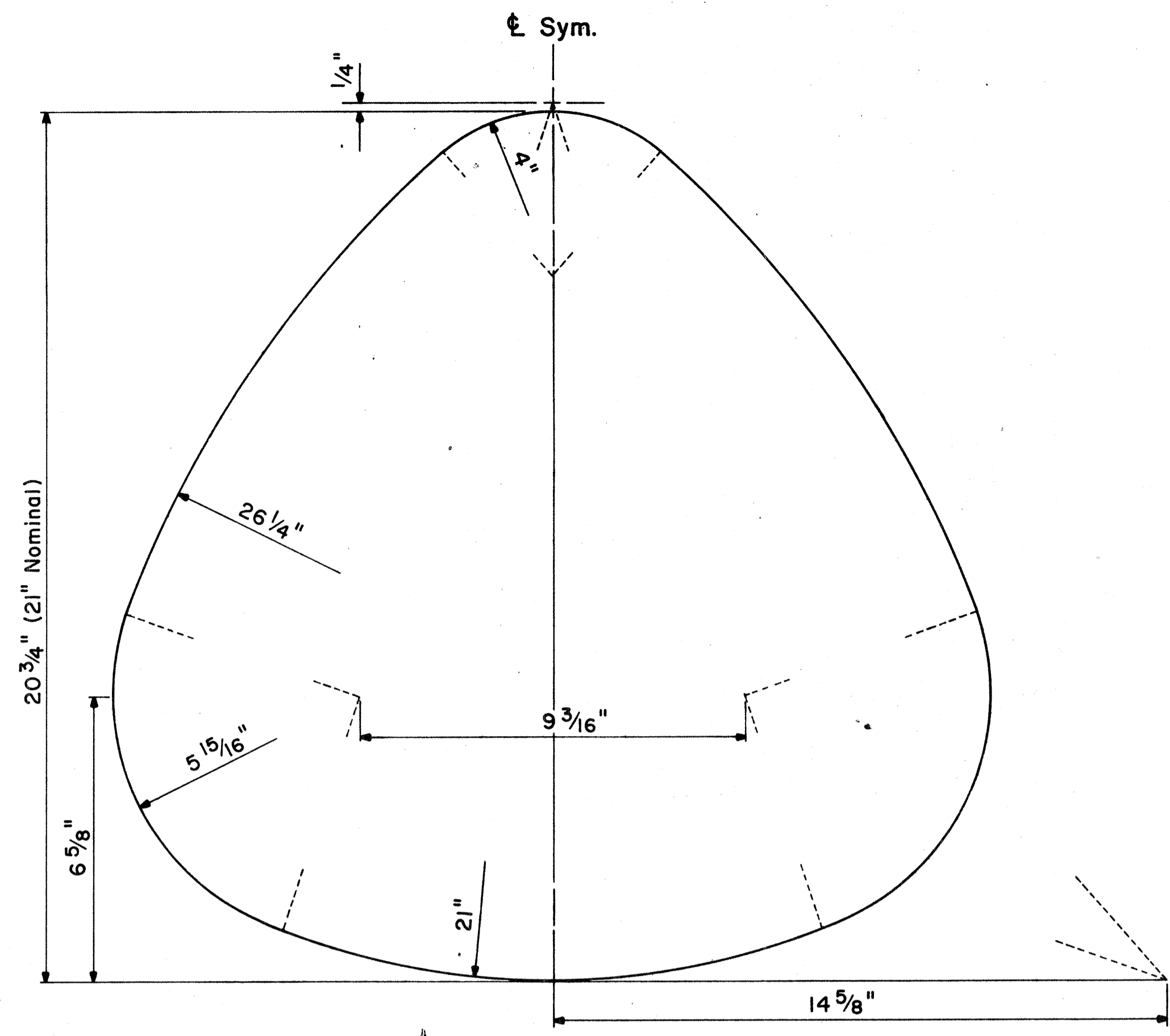
APPROVAL RECOMMENDED:
Etschi Tanaka 5/2/78
TRAFFIC ENGINEER DATE

APPROVED:
Robert R. Waikeahu 5/3/78
ASSISTANT CHIEF, ENGINEERING DATE

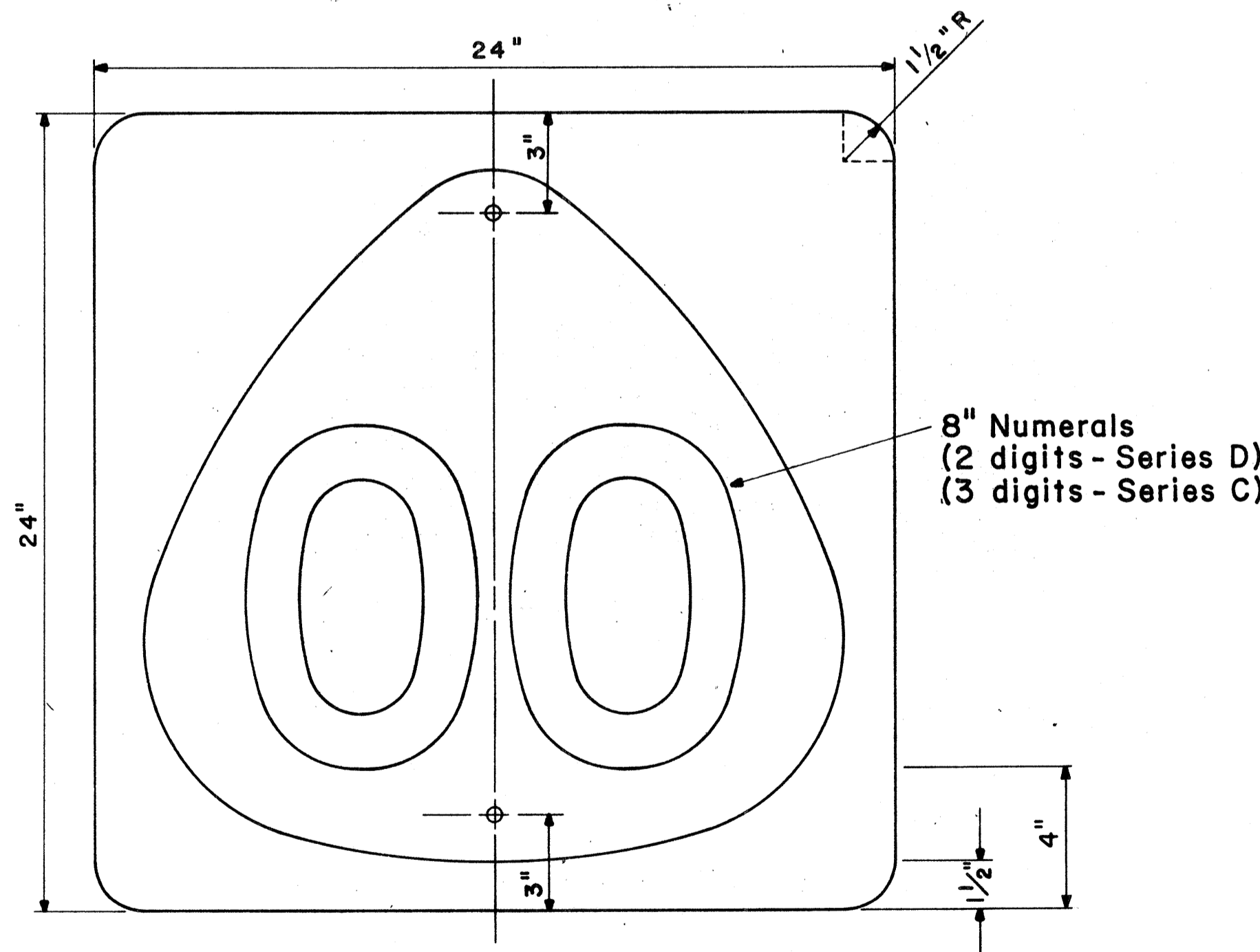
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
MISCELLANEOUS SIGNS
NOT TO SCALE DATE: MAY, 1978
SHEET No. 6 OF 24 SHEETS DT 103

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

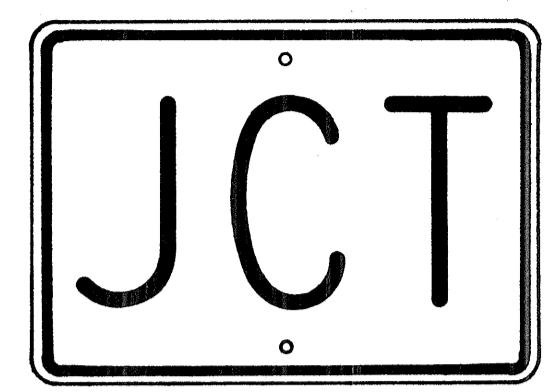
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(21)	1980	80	234



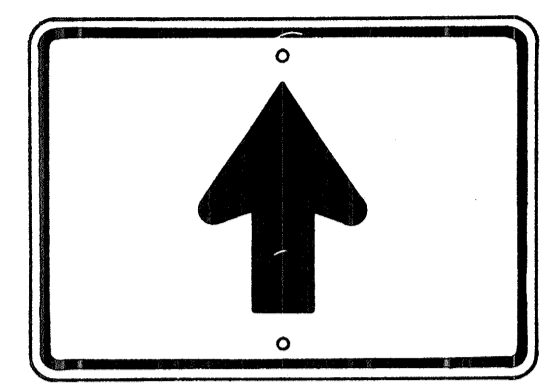
STATE ROUTE MARKER DETAIL
Not to Scale



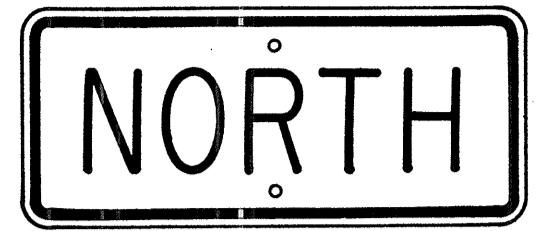
STATE ROUTE MARKER
MI-6(00) 24" x 24"
Scale: 1/4" = 1"



M2-1 21" x 15"



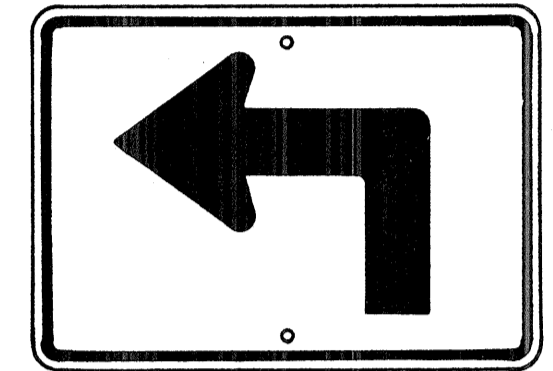
M6-3 21" x 15"



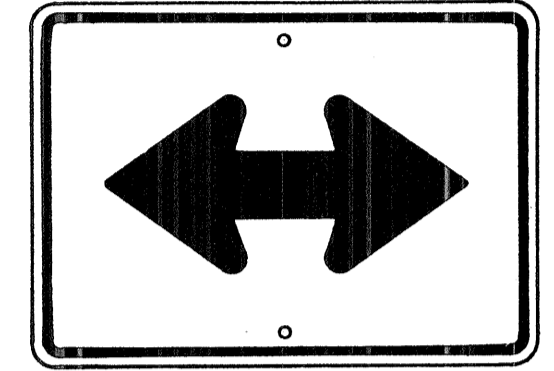
M3-1 24" x 12"
M3-1-A 36" x 18"



M4-1 24" x 12"



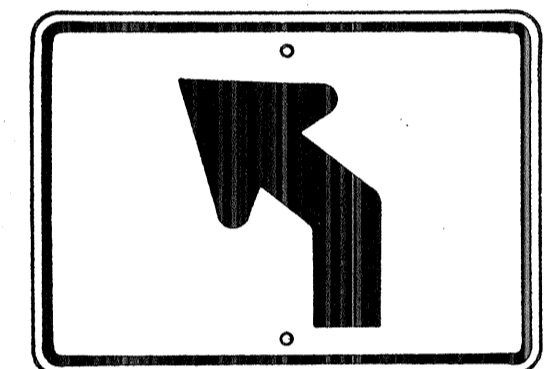
M5-1(L) 21" x 15"



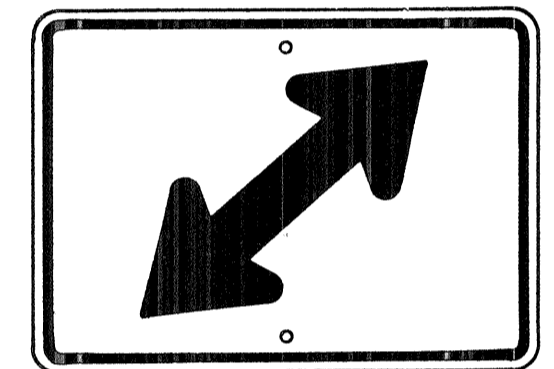
M6-4 21" x 15"



M4-2 24" x 12"



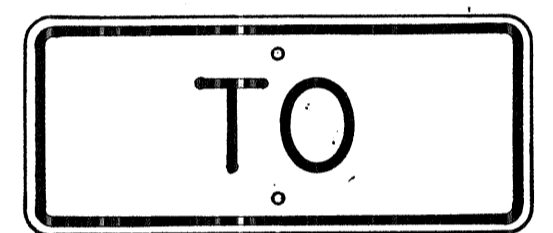
M5-2(L) 21" x 15"



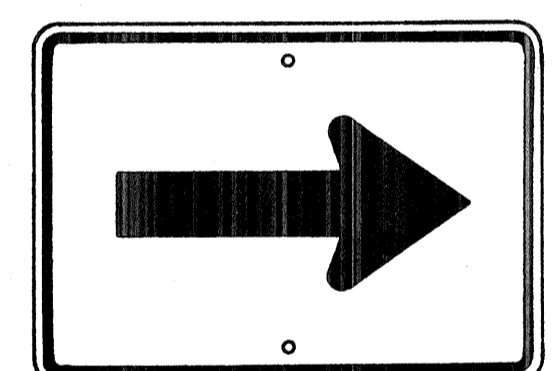
M6-5(R) 21" x 15"



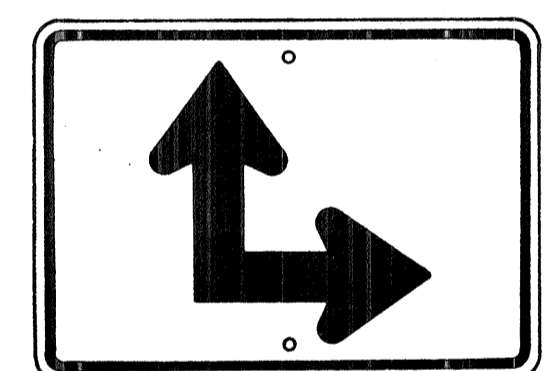
M4-3 24" x 12"



M4-5 24" x 12"



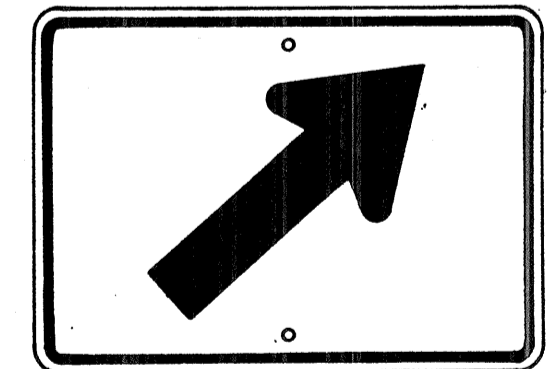
M6-1 21" x 15"



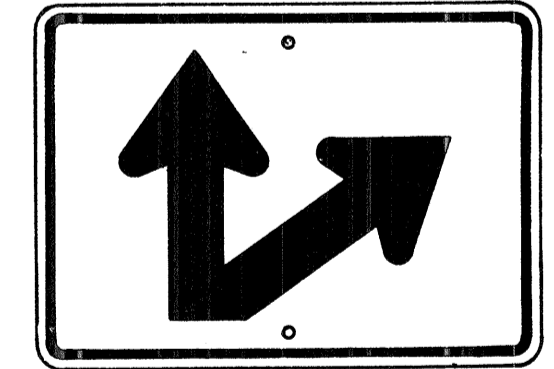
M6-6(R) 21" x 15"



M4-6 24" x 12"



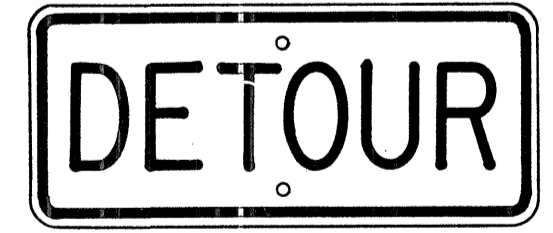
M6-2(R) 21" x 15"



M6-7(R) 21" x 15"



M4-7 24" x 12"



M4-8 24" x 12"

AUXILIARY MARKERS
Not to Scale

GENERAL NOTES

- 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," 1972, and as amended.
- All markers shall be reflectorized unless otherwise specified.
- All markers shall have 3/8" bolt holes drilled at appropriate locations.
- Numerals in () indicates numerals to be inserted for marker message. (R) or (L) indicates right or left.
- 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
- Markers prefixed with "IM" on the plans shall have a white legend on a blue background.

APPROVAL RECOMMENDED:
Eishi Tanaka 6/6/72
TRAFFIC ENGINEER DATE

APPROVED:
Abdul S. Saleh 6-1-72
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 105 Approved 12-30-69	HT	6/1/72
2	Revised General Note 1	HT	10/16/74

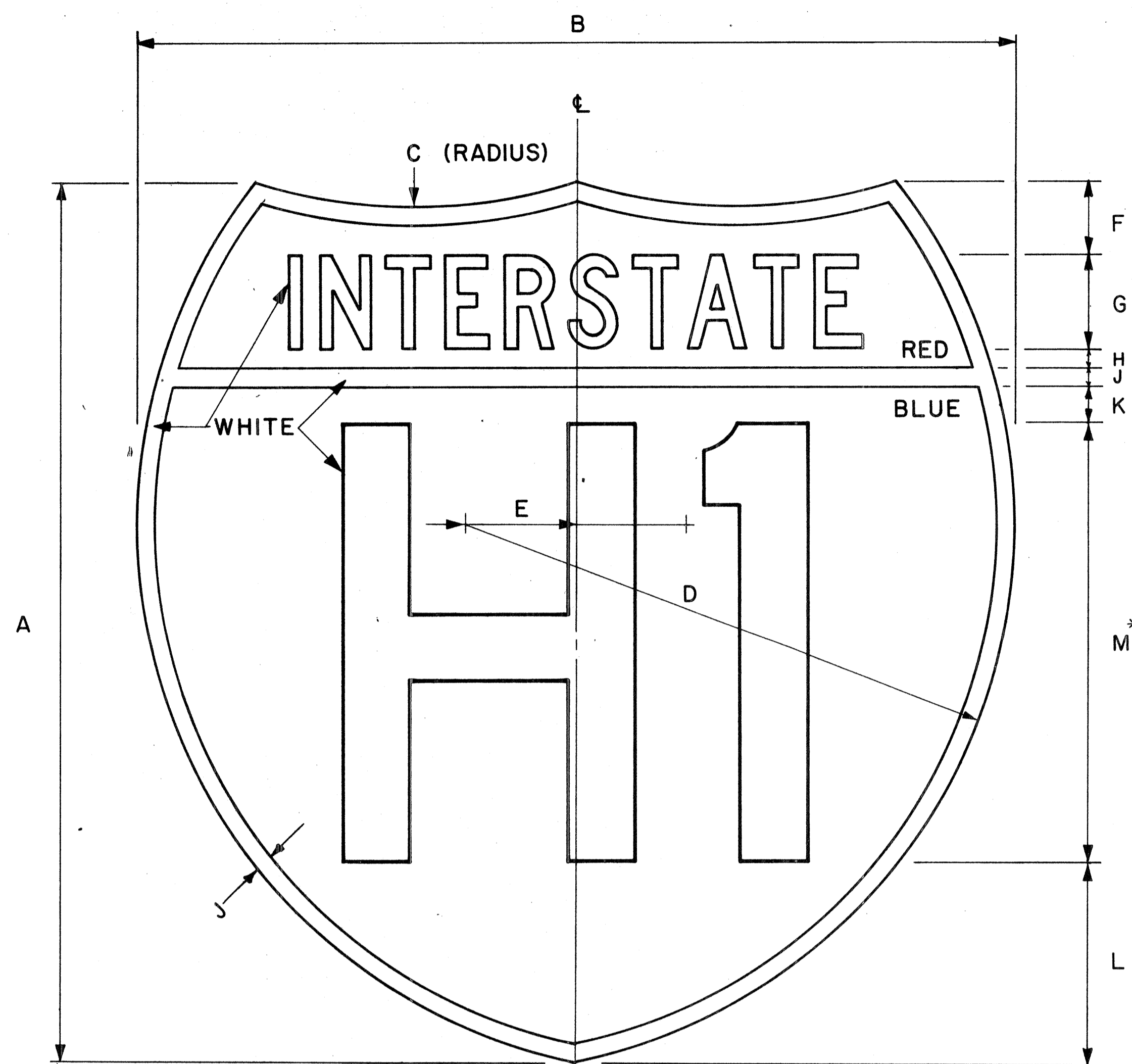
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
STATE ROUTE MARKER
AND AUXILIARY MARKERS

Scale: As Shown
SHEET NO. 8 OF 24 SHEETS DT 105

DATE	_____
DESIGNED BY	_____
TRACED 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.	6078-1(21)	1980	91	234



INTERSTATE ROUTE MARKER

IM-1()

Scale: 3/8" = 1"

GENERAL NOTES

- Interstate route marker details shall conform to the latest FHWA publications:
 - "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
 - "Standard Alphabets for Highway Signs," and as amended.
 - "Standard Highway Signs," and as amended.
- All Interstate route markers shall be reflectorized with reflective sheeting.
- All Interstate route 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.

**INTERSTATE ROUTE MARKER SCHEDULE
(INCHES)**

SIZE ()	A	B	C	D	E	F	G	H	J	K	L	M
1	24	24	15	15	3	2	2 1/2 C	1/2	1/2	1	5 1/2	12D
2	36	36	22 1/2	22 1/2	4 1/2	3	3 3/4 C	3/4	3/4	1 1/2	8 1/4	18D
3	48	48	30	30	6	4	5 C	1	1	2	11	24D

* If letters and numerals cannot be accommodated within available space, Series C letters may be used.

APPROVAL RECOMMENDED:

Etschi Tanaka 4/17/78
TRAFFIC ENGINEER DATE

APPROVED:

Herbert S. Rakeishi 4/18/78
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Replaces DT106 Approved 12/30/69.	H.T.	4-18-78

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
INTERSTATE ROUTE MARKER

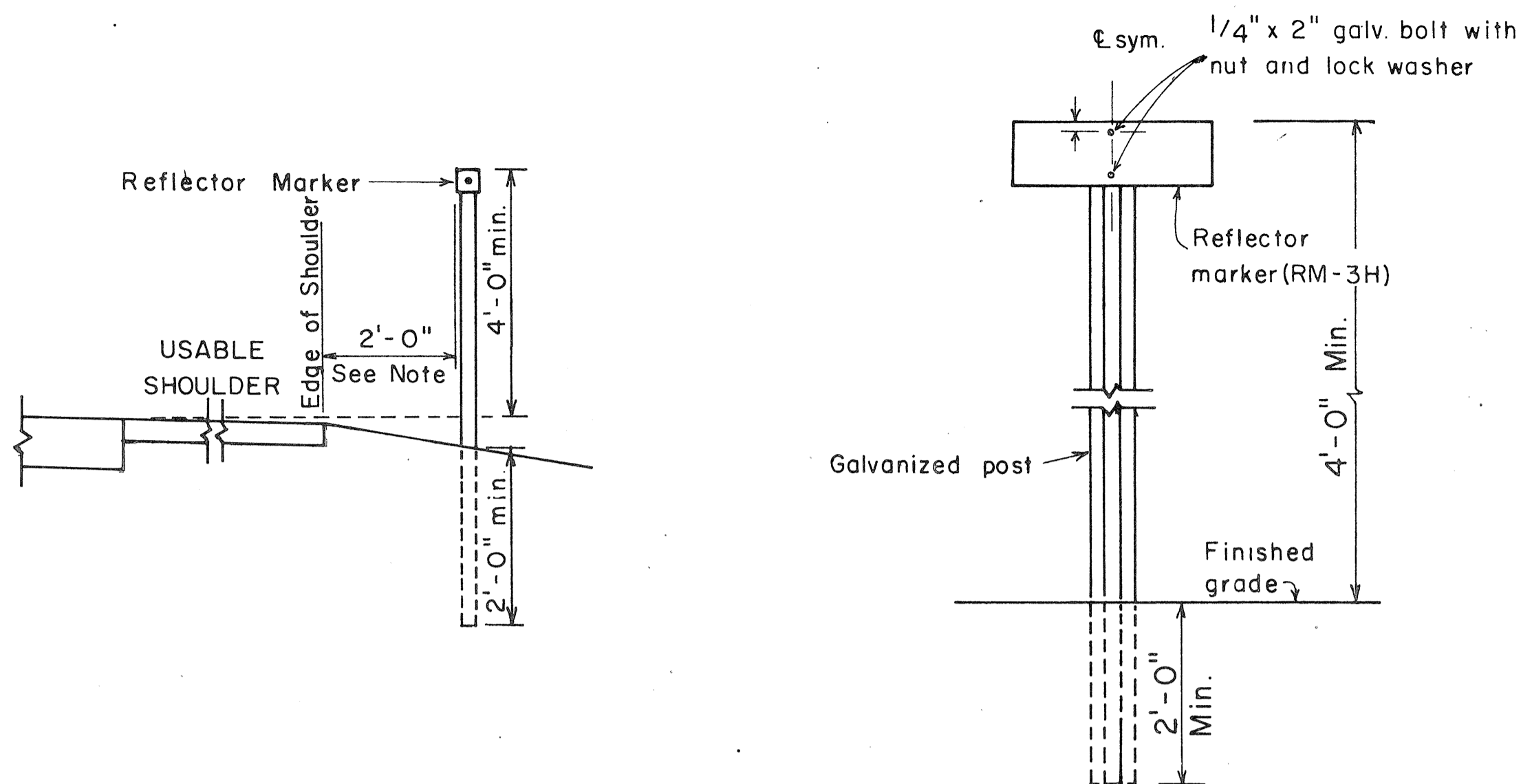
Scale: 3/8" = 1" Date: January, 1978
SHEET NO. 91 OF 24 SHEETS DT106

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

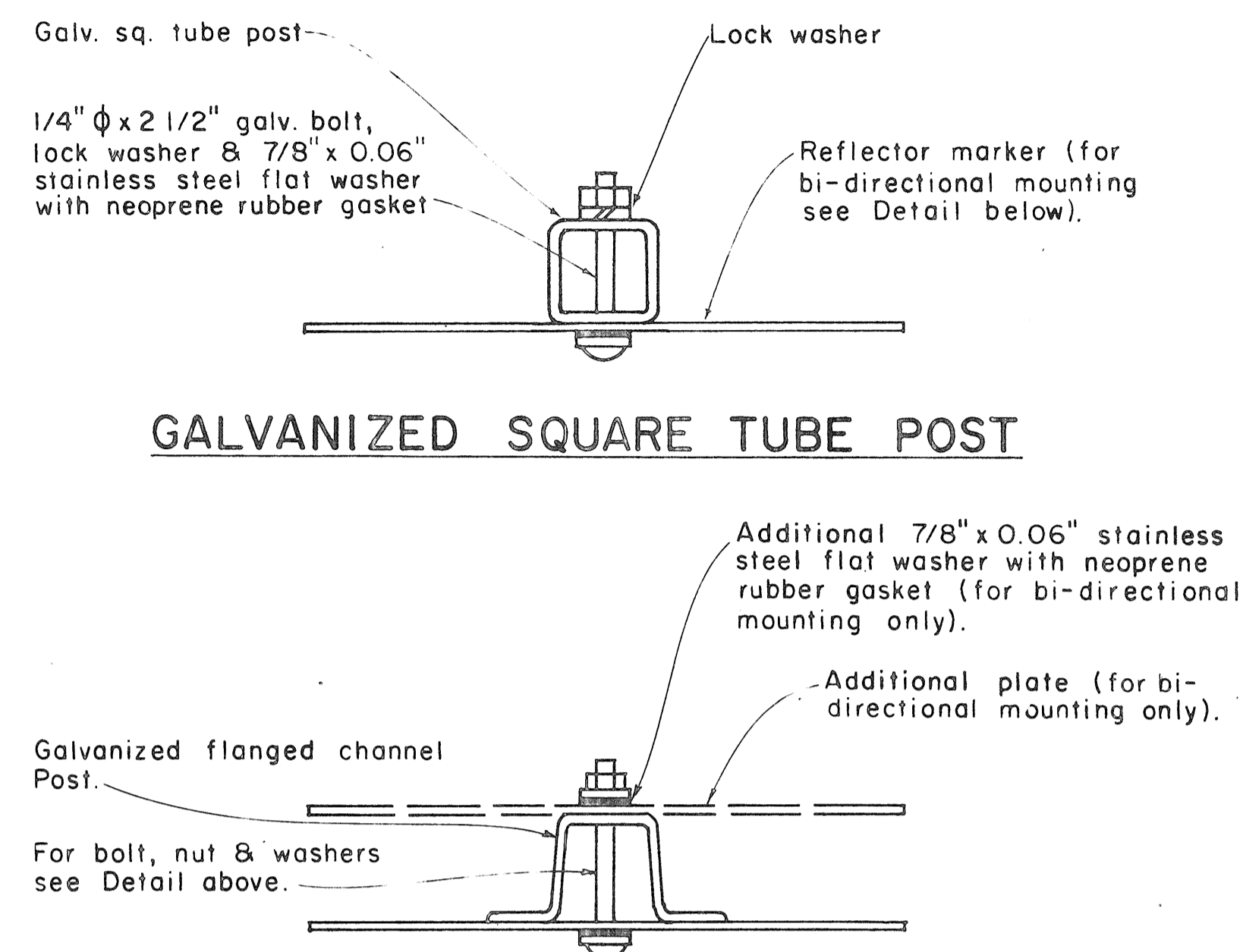
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	10781(2)	1980	92	234

GENERAL NOTES:

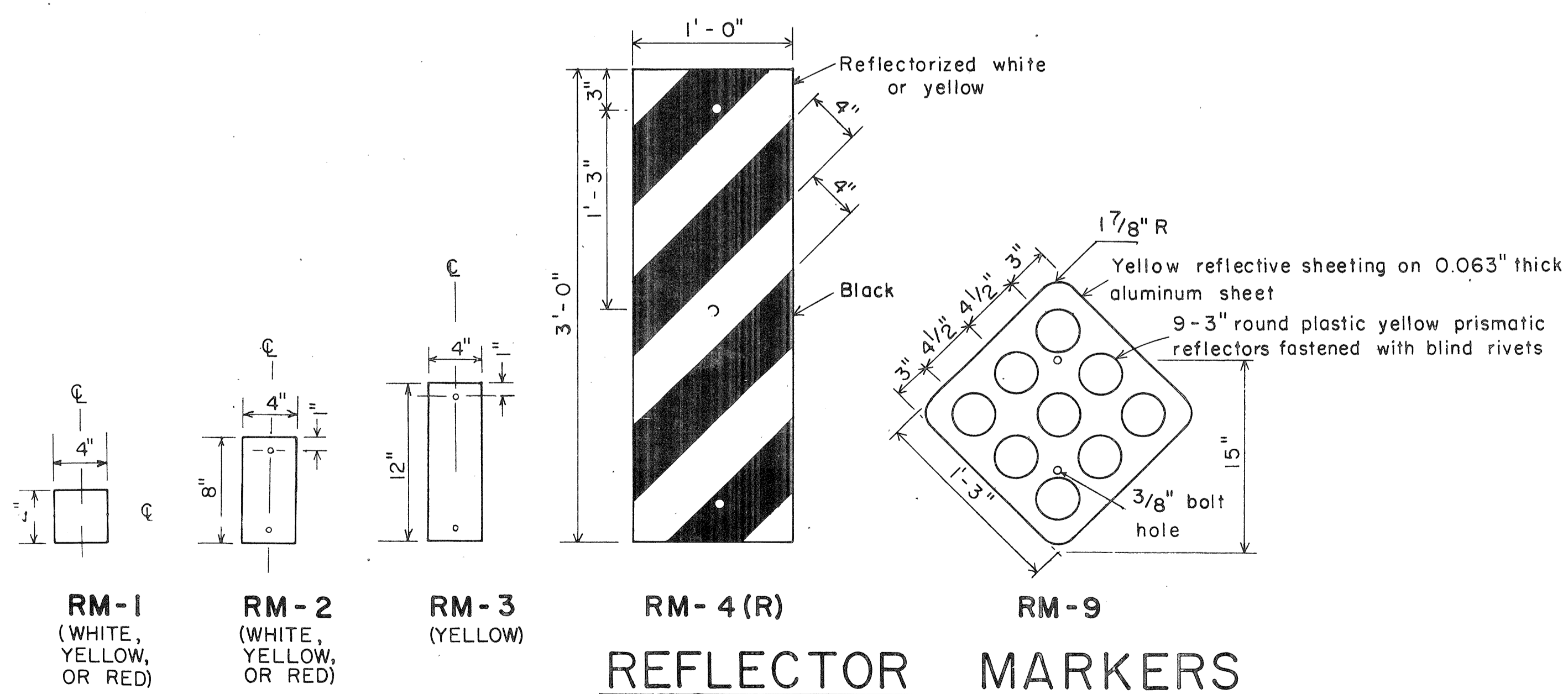
1. Clearance markers (RM-3, RM-4) shall be installed with the edge of the marker in line with the inner edge of the obstruction.
2. (R) or (L) indicates right or left and shall be as shown on the plans.
3. Reflector markers RM-1 and RM-2 shall be:
 - a) Yellow if placed along the left edge of divided roadways, one-way roadways, and ramps in the direction of travel.
 - b) White if placed along the right edge of divided roadways, one-way roadways, and ramps in the direction of travel.
4. For reflector marker RM-9, reflective sheeting material may be used as an alternate.
5. For RM-4, the stripes shall slope downward at an angle of 45° in the direction of traffic.



REFLECTOR MARKER MOUNTING DETAIL



GALVANIZED SQUARE TUBE POST
GALVANIZED FLANGED CHANNEL POST
TYPICAL MOUNTING DETAILS



REFLECTOR MARKERS

APPROVAL RECOMMENDED:
Eiichi Tanaka
 TRAFFIC ENGINEER DATE 11/2/77

APPROVED:
Herbert S. Sakai
 ASSISTANT CHIEF, ENGINEERING DATE 11/2/77

NO.	REVISION	APPROVED BY	DATE
1	Revised Mounting Details	H-1	4/23/80

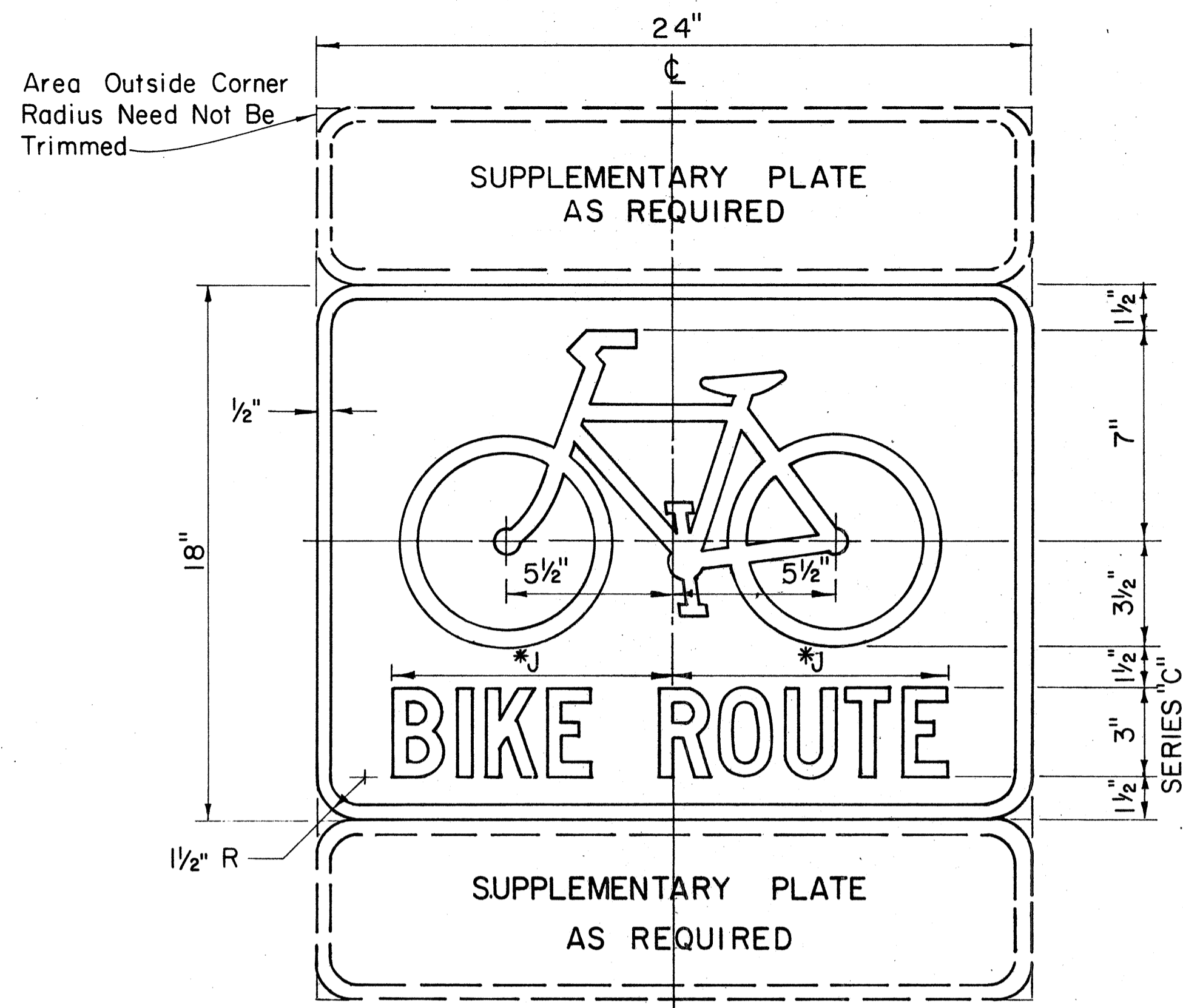
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
 MISCELLANEOUS REFLECTOR MARKERS

Not to scale June, 1977

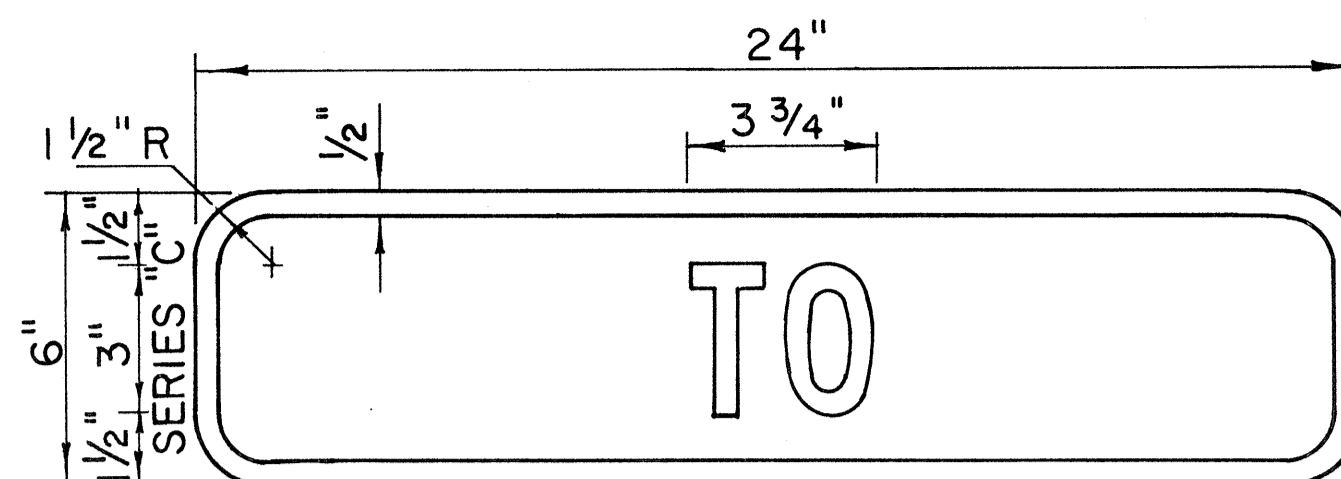
DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
IN CHARGE	_____
APPROVED BY	_____
DATE	_____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-07B-1(21)	1980	03	234

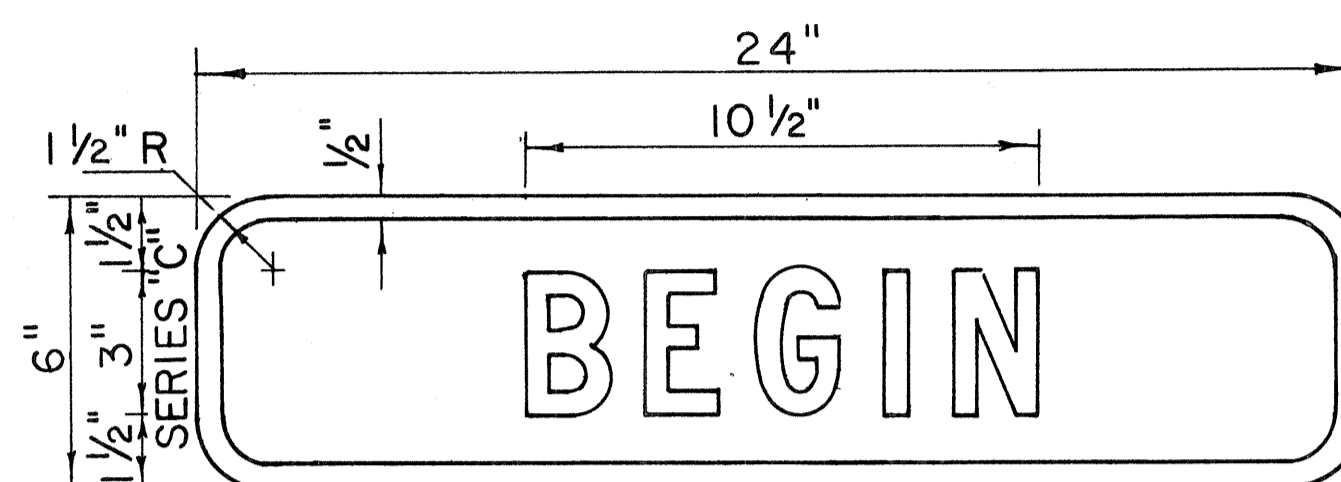


DII-1
BIKE ROUTE SIGN

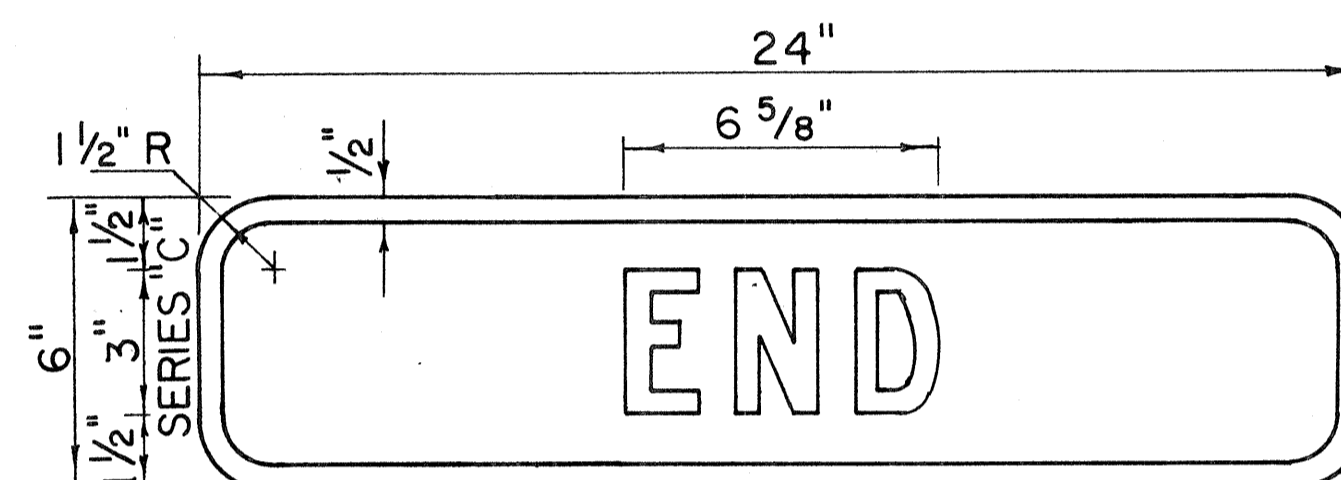
Scale: 3" = 1'-0"



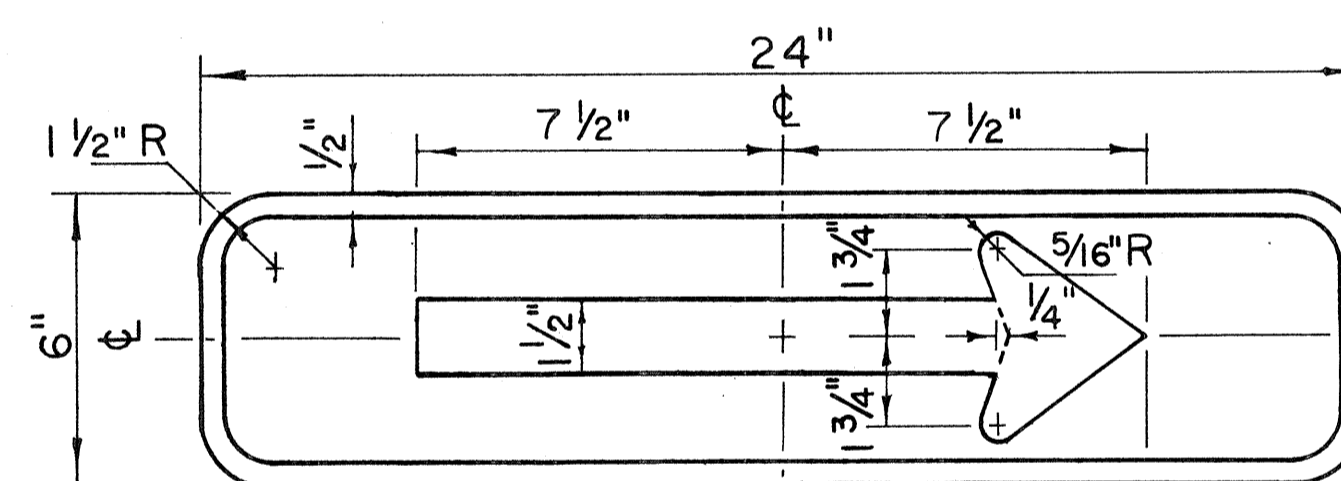
DII-2



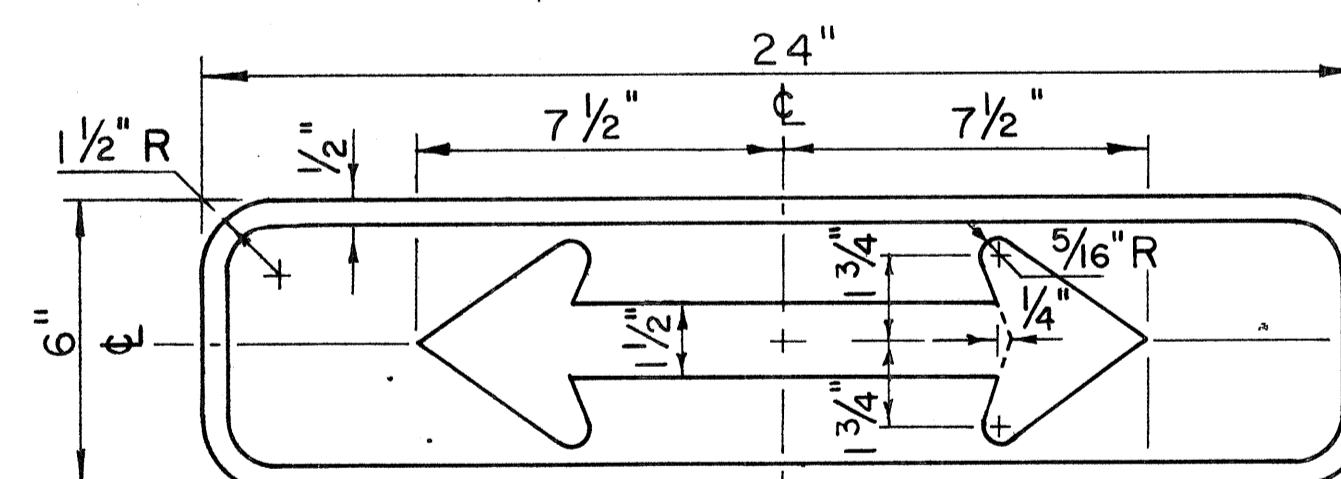
DII-3



DII-4



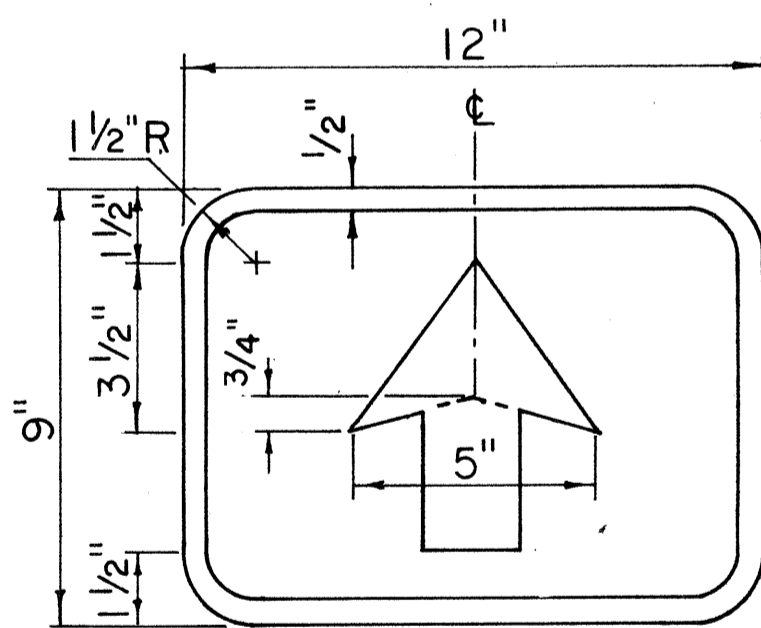
DII-5(R)



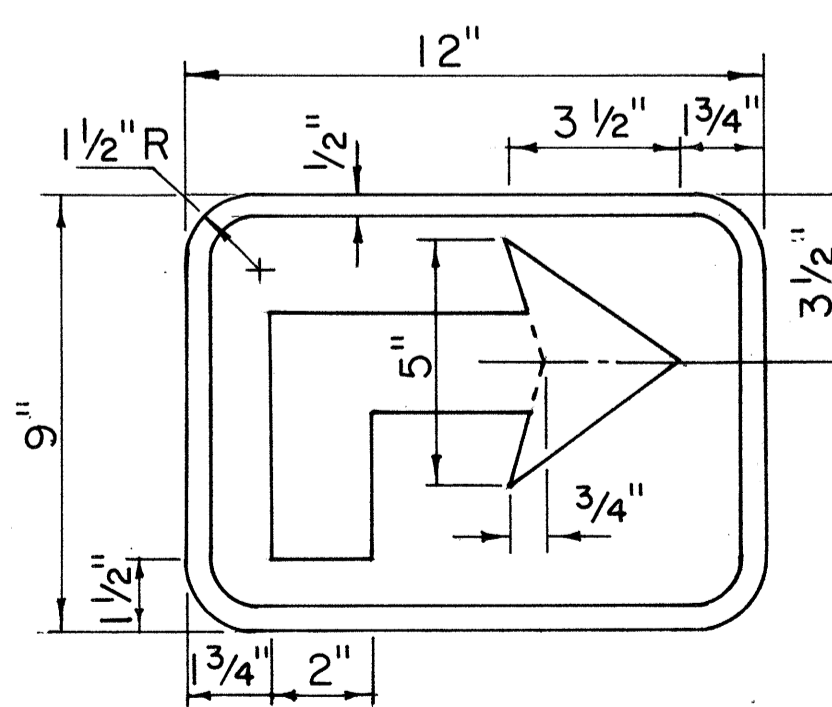
DII-6

SUPPLEMENTARY PLATES

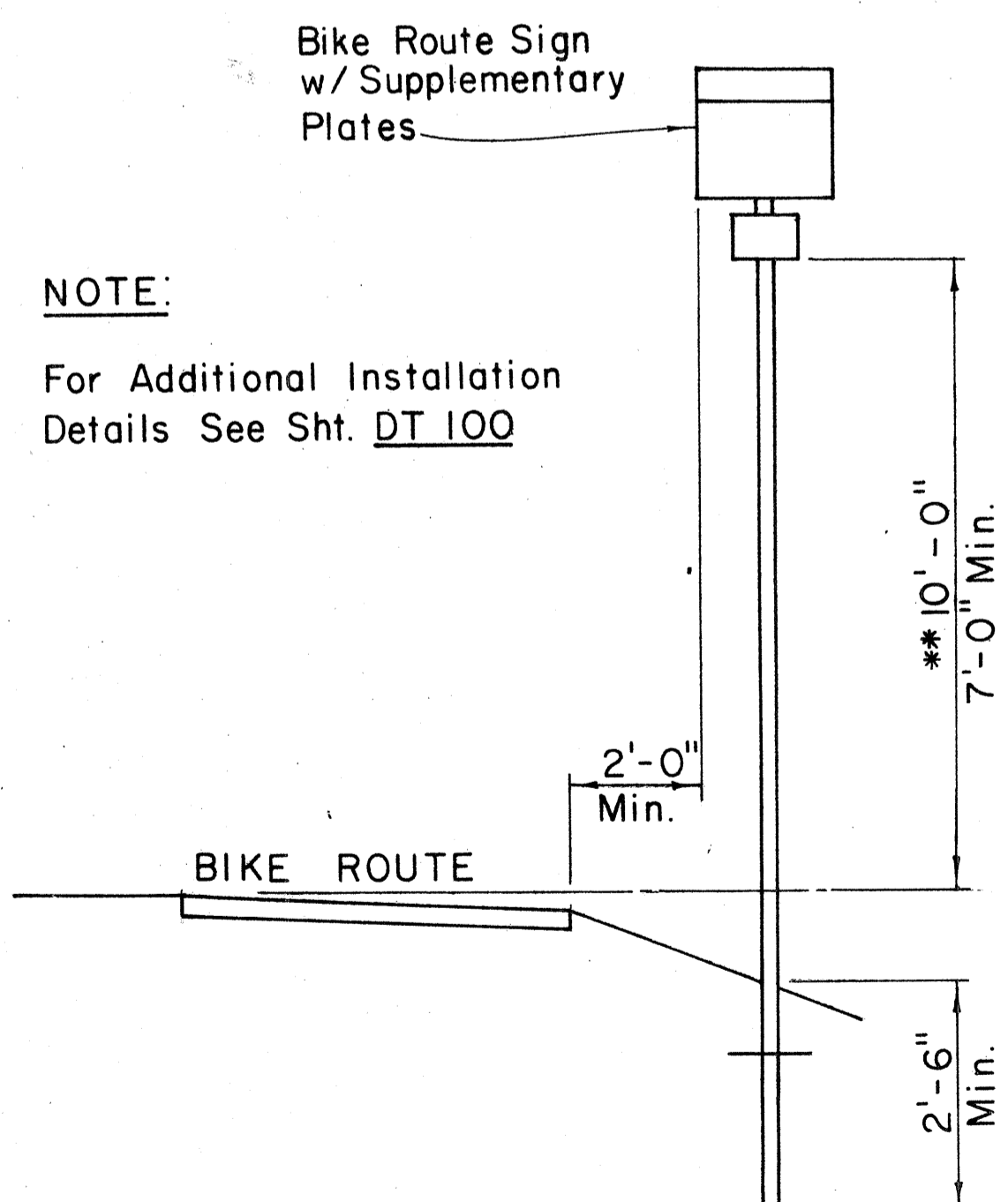
Scale: 3" = 1'-0"



DII-7



DII-8(R)



TYPICAL INSTALLATION

Scale: Not to Scale

NOTE:
For Additional Installation
Details See Sht. DT 100

GENERAL NOTES
BIKE ROUTE SIGN & SUPPLEMENTARY PLATES

- Sign details shall conform to the latest edition of the following FHWA publications: "Manual on Uniform Traffic Control Devices for Streets and Highways", "Standard Highway Signs" and "Standard Alphabets for Highway Signs" and as amended.
- Legend and borders shall be white (reflectORIZED) on a green (reflectORIZED) background.
- Drill 3/8" ϕ bolt holes (for mounting) at appropriate locations.
- When Supplementary Plates (DII-2 to DII-6 only) are required with Bike Route Sign (DII-1 or Alternate), the Sign Assembly shall be mounted on a single metal plate (24" x 24" or 24" x 30") and shall be arranged as shown on the plans.
- Alternate sign messages shall be denoted by the following:
DII-1a: Bike Lane
DII-1b: Bike Path
DII-1c: Bikeway
Dimension "J" varies. Visually center Alternate message.
- See Plans for special details.

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

APPROVAL RECOMMENDED:
Robert Zaleski
TRAFFIC ENGINEER DATE 11/1/77

APPROVED:
Robert Zaleski
ASSISTANT CHIEF, ENGINEERING DATE 11/1/77

NO.	REVISION	APPROVED BY	DATE
1	Revised depth of Sign Post	H.T.	5/2/79

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
BIKE ROUTE SIGN
& SUPPLEMENTARY PLATES

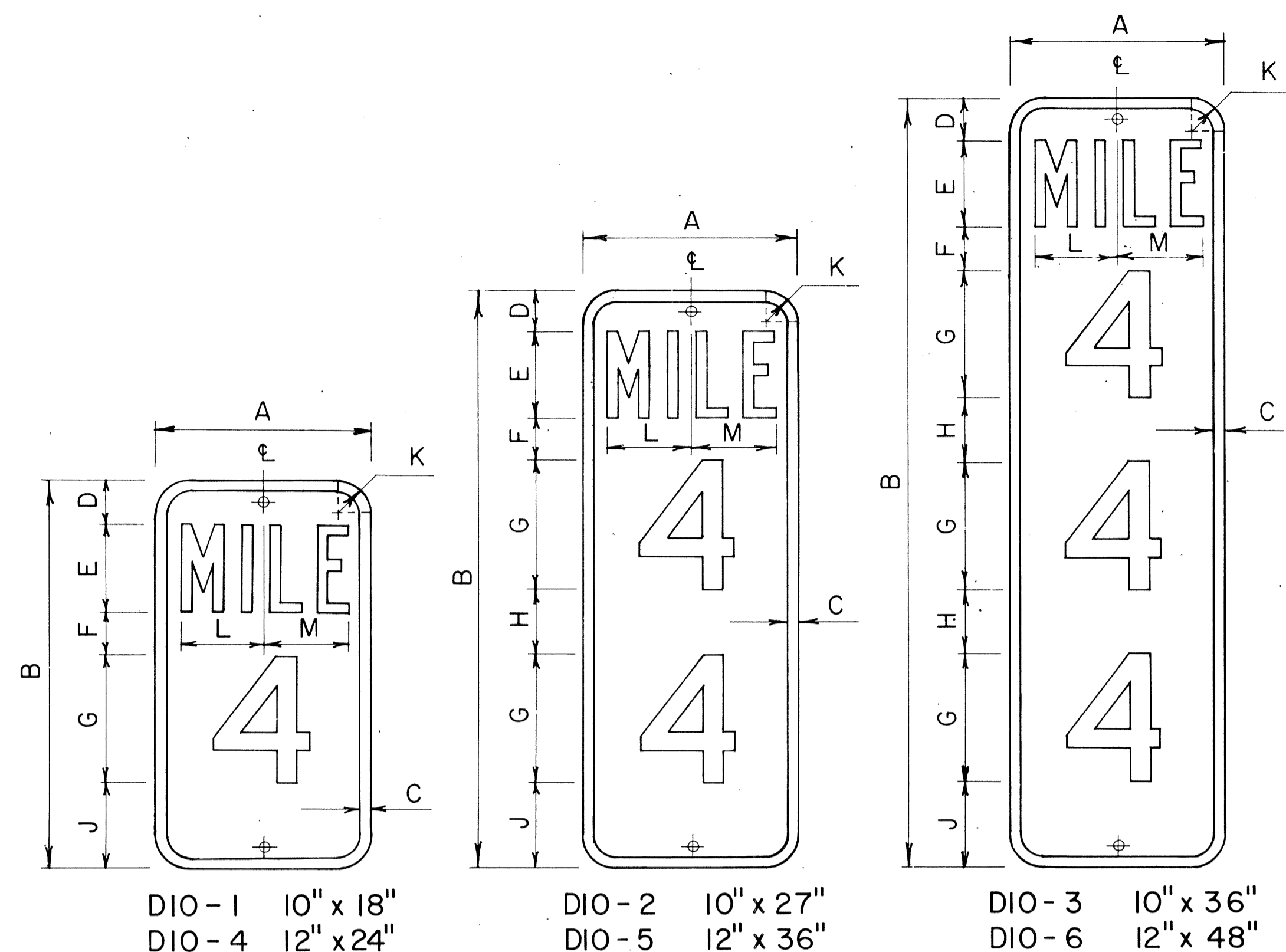
Scale: As Shown June 1977

SHEET NO. 11 OF 21 SHEETS DT 114

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(2)	1980	24	234

GENERAL NOTES:

- Milepost marker and highway route number plates shall conform to the latest editions of the following FHWA publications:
 - "Standard Alphabets for Highway Signs," and as amended.
 - "Standard Highway Signs," and as amended.
 - "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- Milepost markers and highway route numbers shall be completely reflectorized with reflective sheeting as follows:
 - Milepost markers shall have white legends and border on a green background.
 - Highway route numbers shall have black numerals on a white background.
- The plate backings for milepost markers and highway route numbers shall conform to the requirements for standard highway signs. The plates shall have 3/8" bolt holes drilled at appropriate locations.
- Highway route number plates shall be used in conjunction with milepost marker plates on all roadways, except Interstate freeways. Fabrication and installation costs of highway route number plates shall be considered incidental to the milepost marker assembly.
- Milepost markers shall be installed on all roadways as follows:
 - One milepost on each side of multi-lane roadways.
 - Back-to-back mileposts on one side of 2-lane roadways. (Right side of roadway in direction of increasing mileage.)

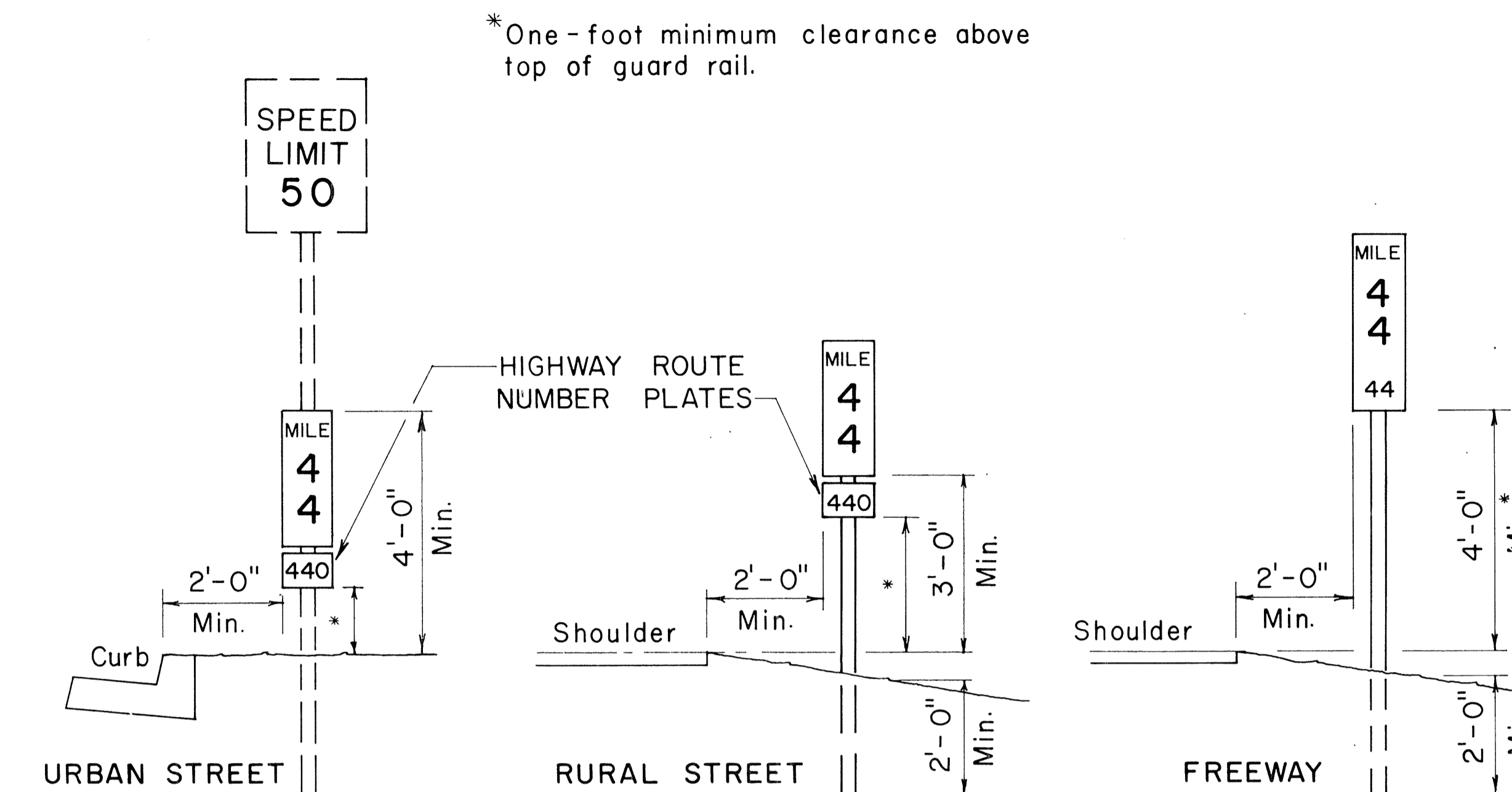


MILEPOST MARKER PLATE DETAILS

Scale: 3/16" = 1"

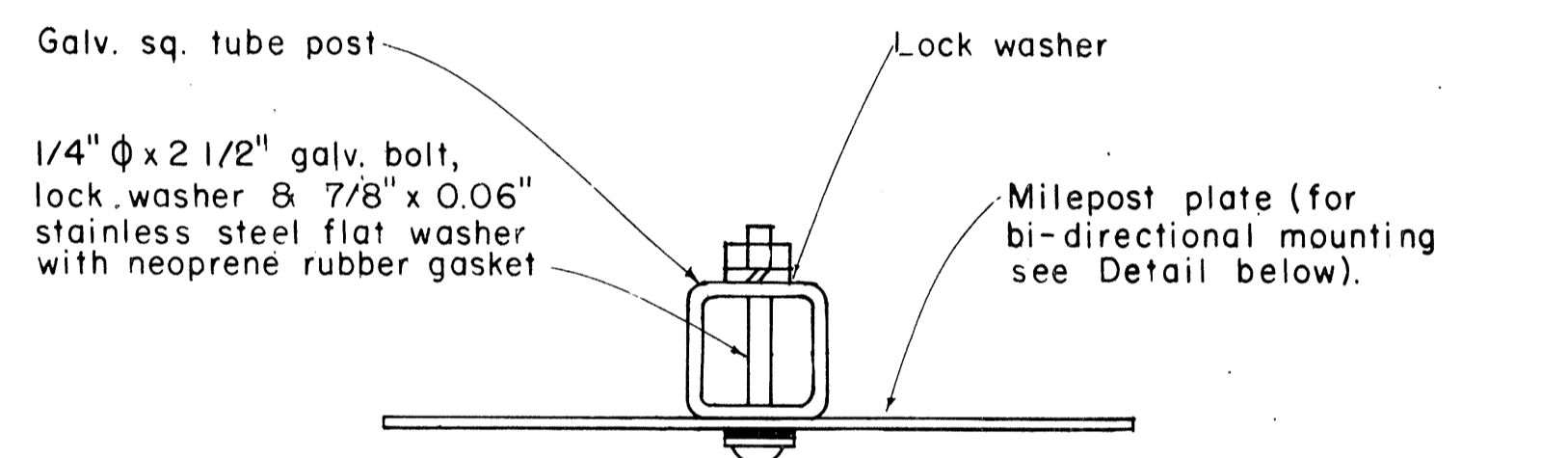
DIO-1	10" x 18"	DIO-2	10" x 27"	DIO-3	10" x 36"
DIO-4	12" x 24"	DIO-5	12" x 36"	DIO-6	12" x 48"

MILEPOST PLATE SCHEDULE (INCHES)															
NAME	SIZE	A	B	C	D	E	F	G	H	J	K	L	M	LETTER SERIES	NUMERAL SERIES
DIO-1	10 x 18	10	18	1/2	2	4	2	6		4	1 1/2	3 5/8	3 3/8	B	C
DIO-4	12 x 24	12	24	1/2	3	4	3	10		4	1 1/2	4 3/8	4 3/8	C	C
DIO-2	10 x 27	10	27	1/2	2	4	2	6	3	4	1 1/2	3 5/8	3 3/8	B	C
DIO-5	12 x 36	12	36	1/2	3	4	3	10	3	3	1 1/2	4 3/8	4 3/8	C	C
DIO-3	10 x 36	10	36	1/2	2	4	2	6	3	4	1 1/2	3 5/8	3 3/8	B	C
DIO-6	12 x 48	12	48	1/2	3	4	3	10	2 1/2	3	1 1/2	4 3/8	4 3/8	C	C

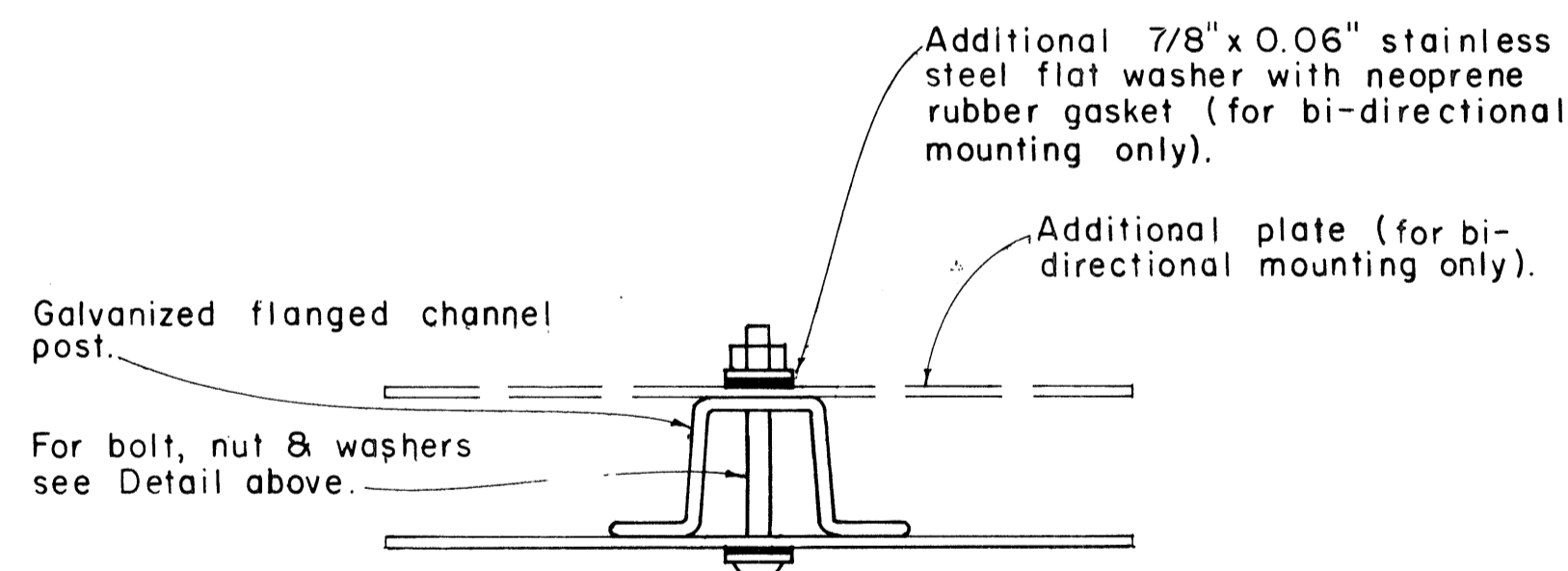


TYPICAL ROADSIDE INSTALLATION

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



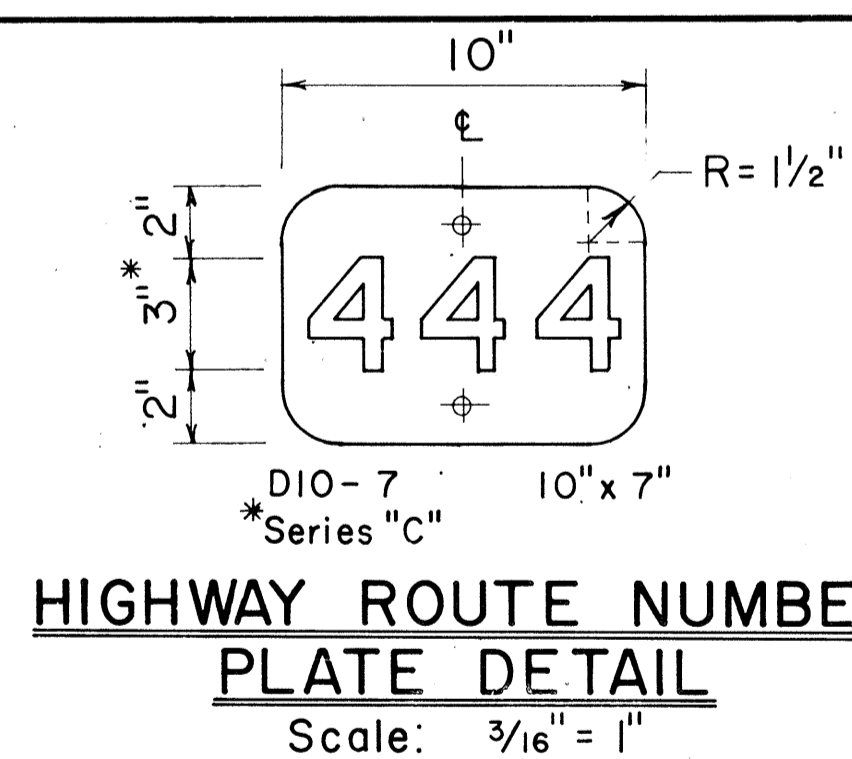
GALVANIZED SQUARE TUBE POST



GALVANIZED FLANGED CHANNEL POST

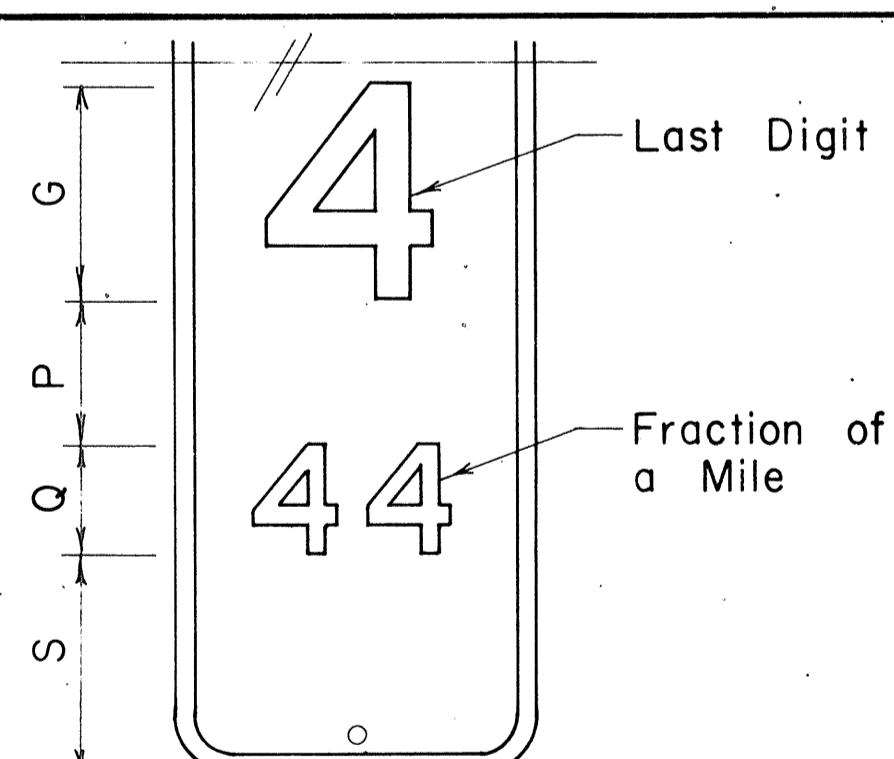
TYPICAL MOUNTING DETAILS

Scale: 1/2" = 1"



HIGHWAY ROUTE NUMBER PLATE DETAIL

Scale: 3/16" = 1"



MILEPOST MARKER FRACTION DETAIL

Scale: 3/16" = 1"

MILEPOST PLATE SCHEDULE WITH FRACTION OF A MILE						
NAME	SIZE	G	P	Q	S	NUMERAL SERIES
D10-1a	10" x 27"	6"	4"	3"	6"	C
D10-4a	12" x 36"	10"	4"	5"	7"	C
D10-2a	10" x 36"	6"	4"	3"	6"	C
D10-5a	12" x 48"	10"	4"	5"	6"	C
D10-3a	10" x 45"	6"	4"	3"	6"	C
D10-6a	12" x 60"	10"	4"	5"	6"	C

NO.	REVISION	APPROVED BY	DATE
1	Revised Mounting Details	H.K.	4/23/80

APPROVAL RECOMMENDED:
Euchi Tanaka 1/17/78
 TRAFFIC ENGINEER DATE

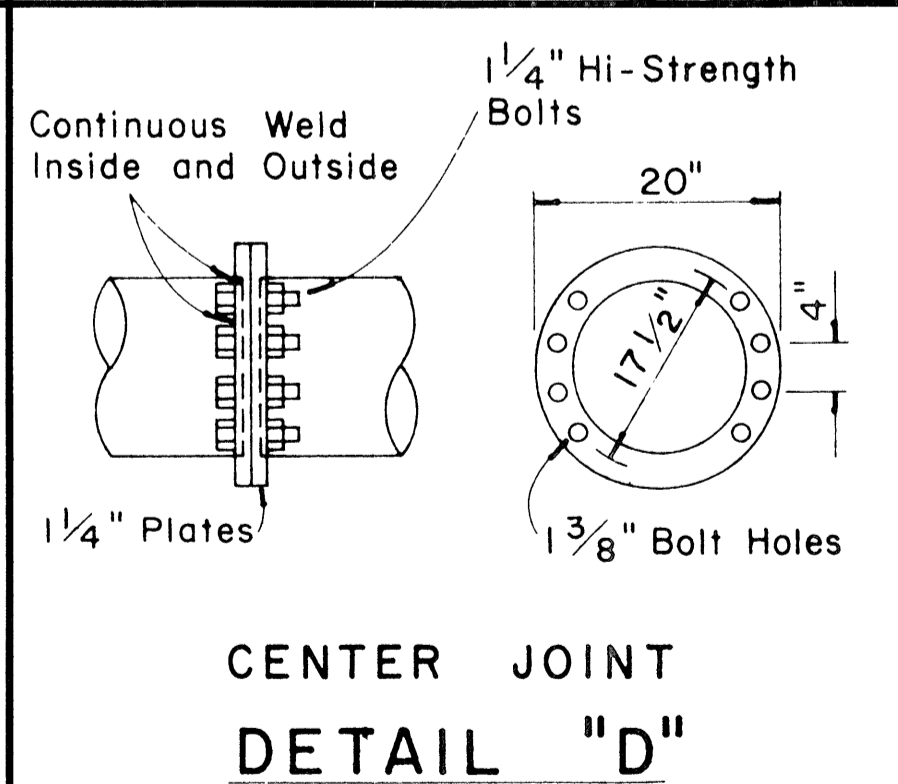
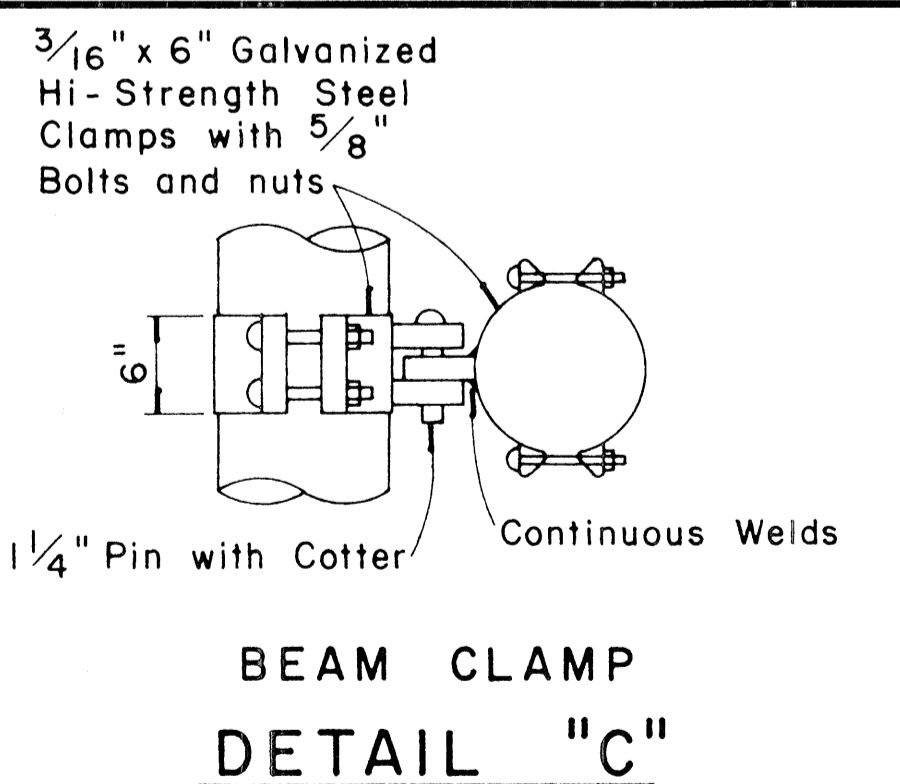
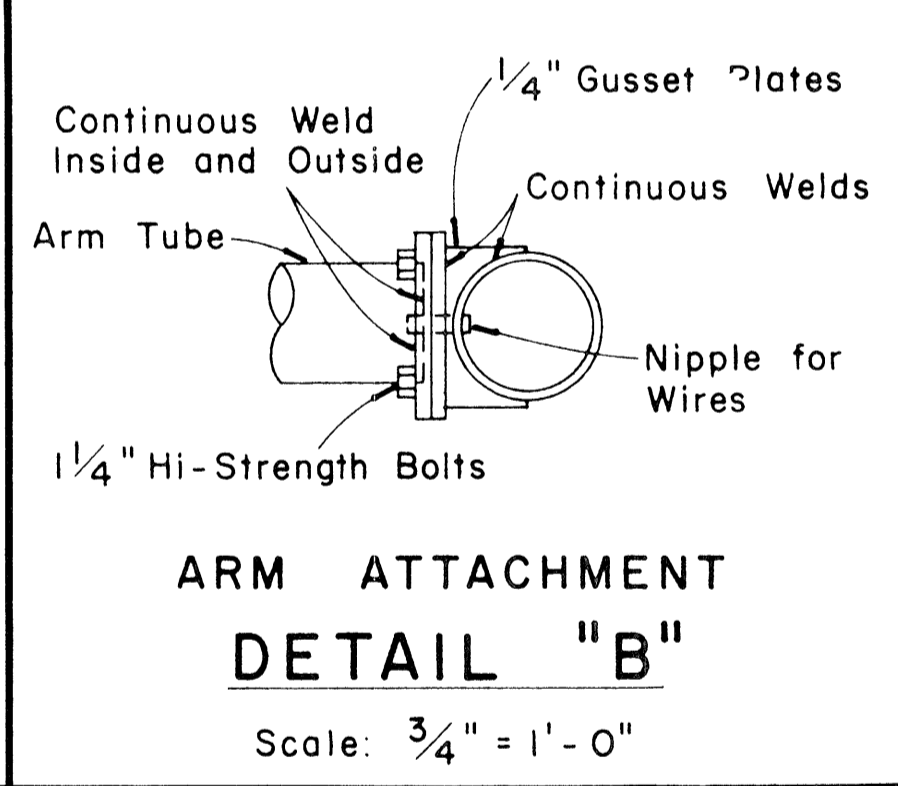
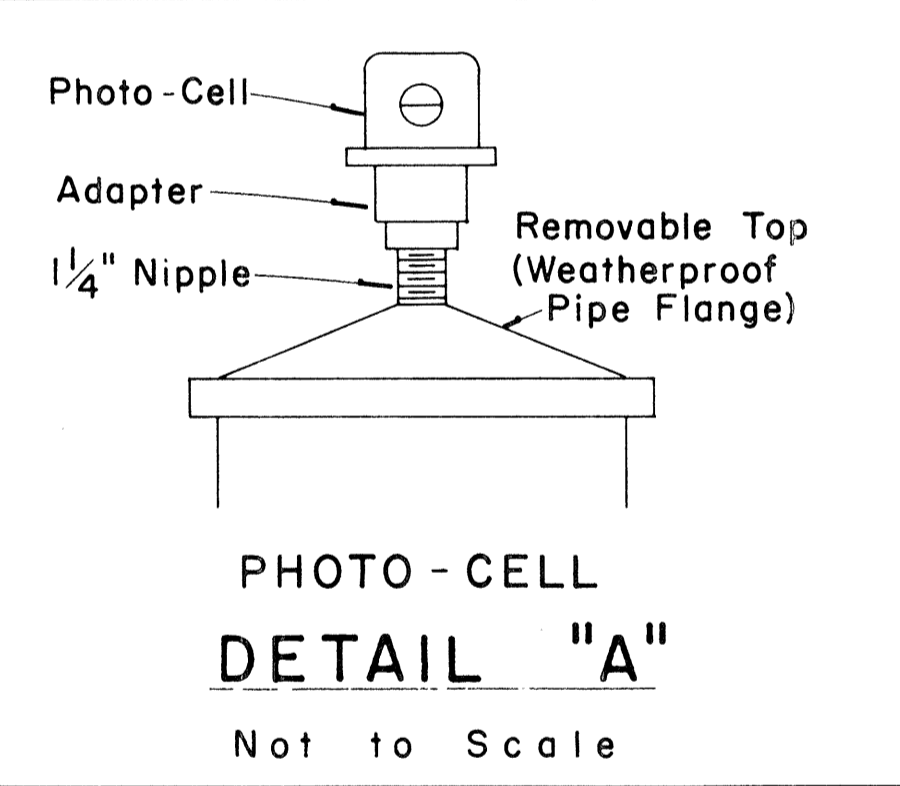
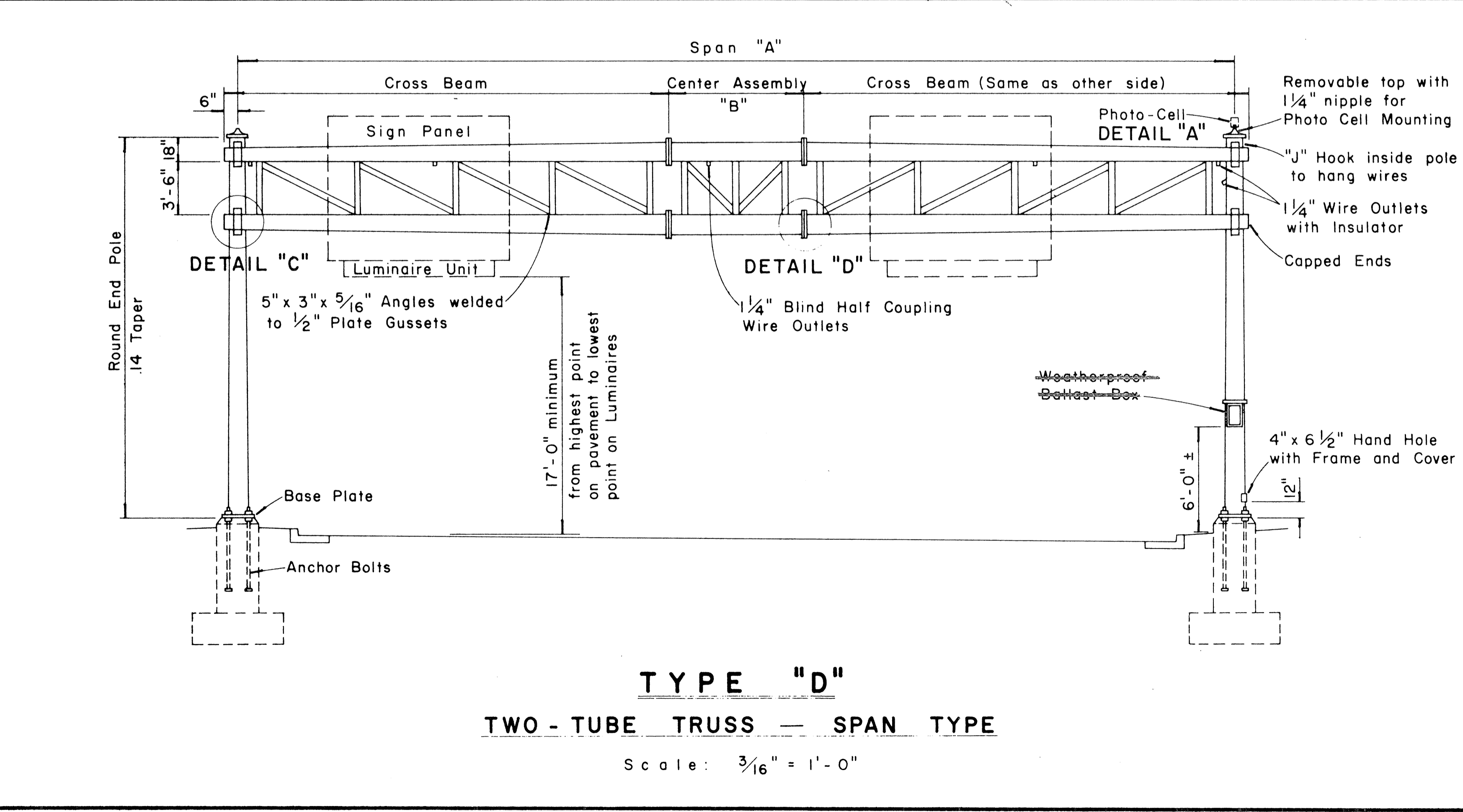
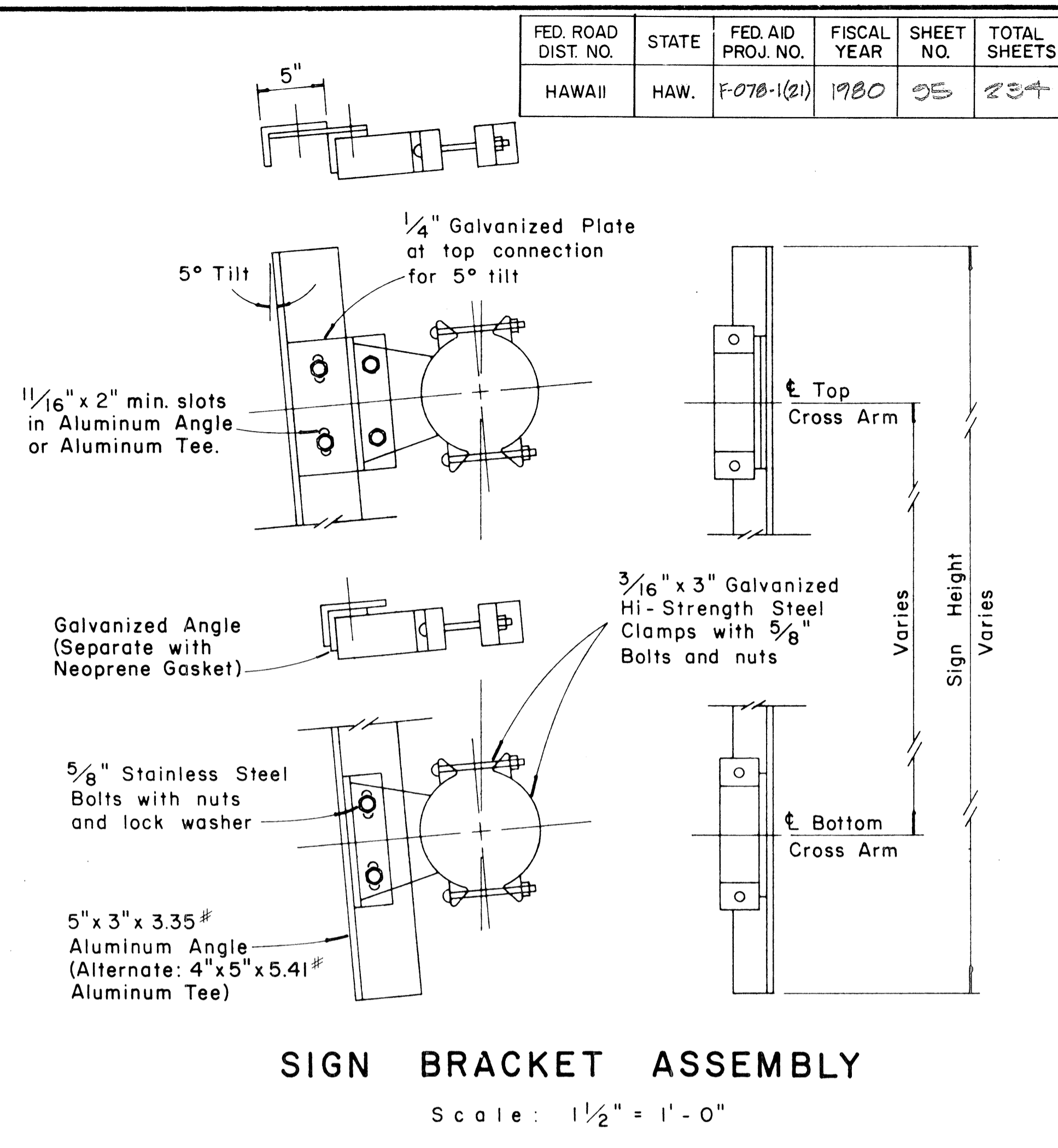
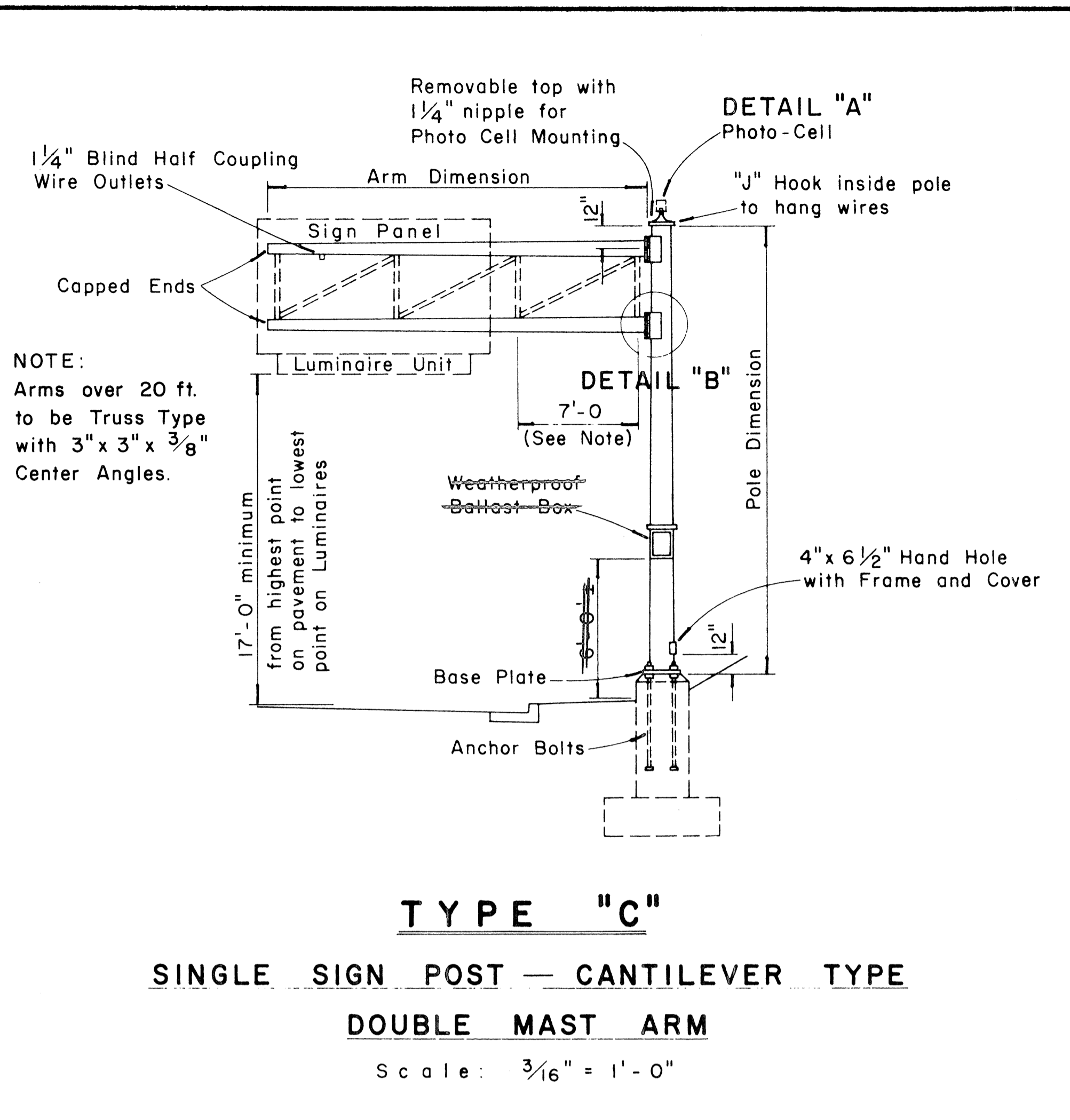
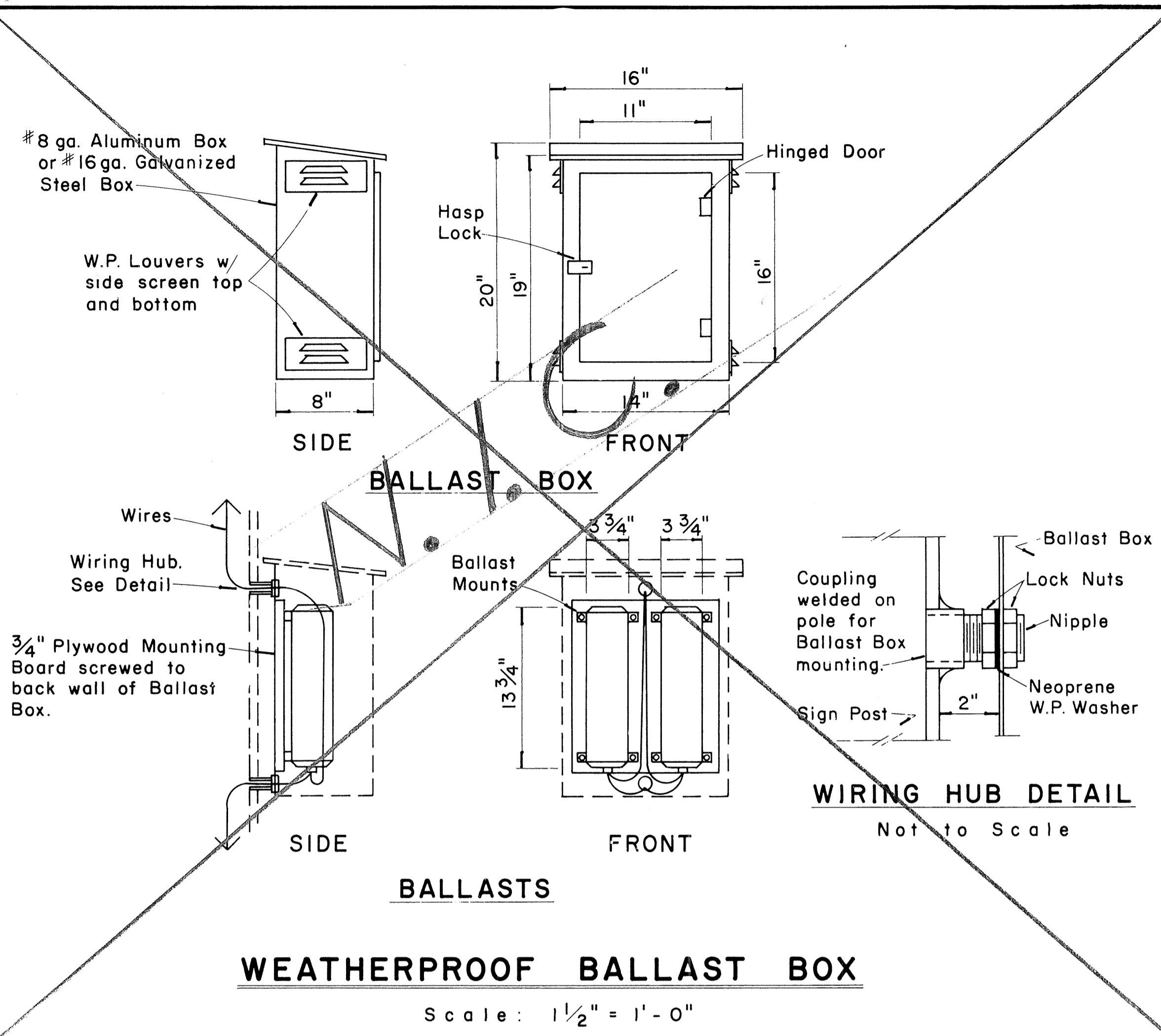
APPROVED:
Robert S. Sakai 1/12/78
 ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STANDARD DETAILS
MILEPOSTS

SCALE: As Shown DATE: December, 1977

ORIGINAL PLAN
 SURVEY PLOTTED BY: _____ DATE: _____
 DESIGNED BY: _____
 NOTE BOOK TRACKED BY: _____
 QUANTITIES BY: _____
 CHECKED BY: _____
 No. _____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-07B-1(2)	1980	95	234



APPROVAL RECOMMENDED:
Eishi Tanaka 12/29/69
 TRAFFIC ENGINEER DATE

APPROVED:
William S. Seid 12-30-69
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

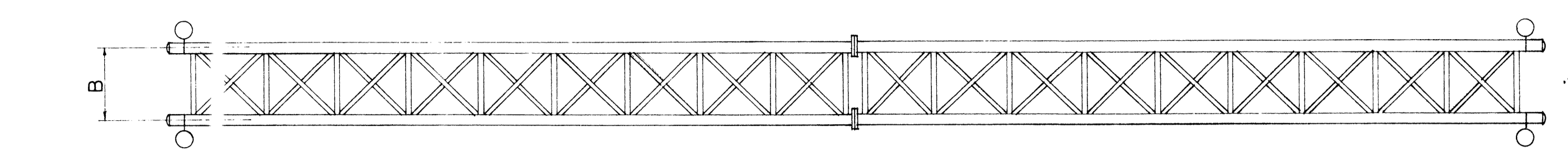
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
OVERHEAD SIGN SUPPORTS

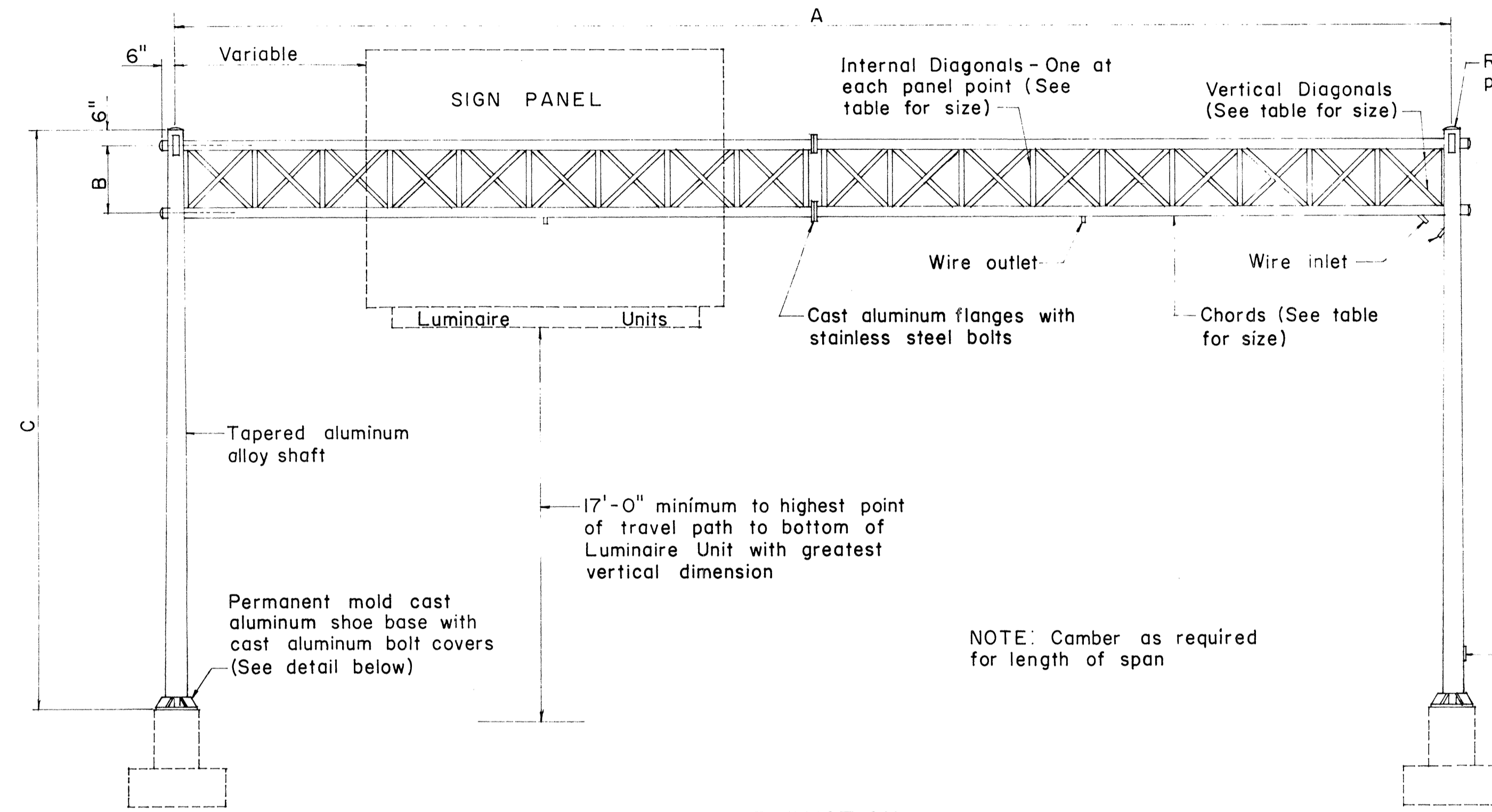
Scale As Shown
 SHEET No. 13 OF 24 SHEETS DT 200

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

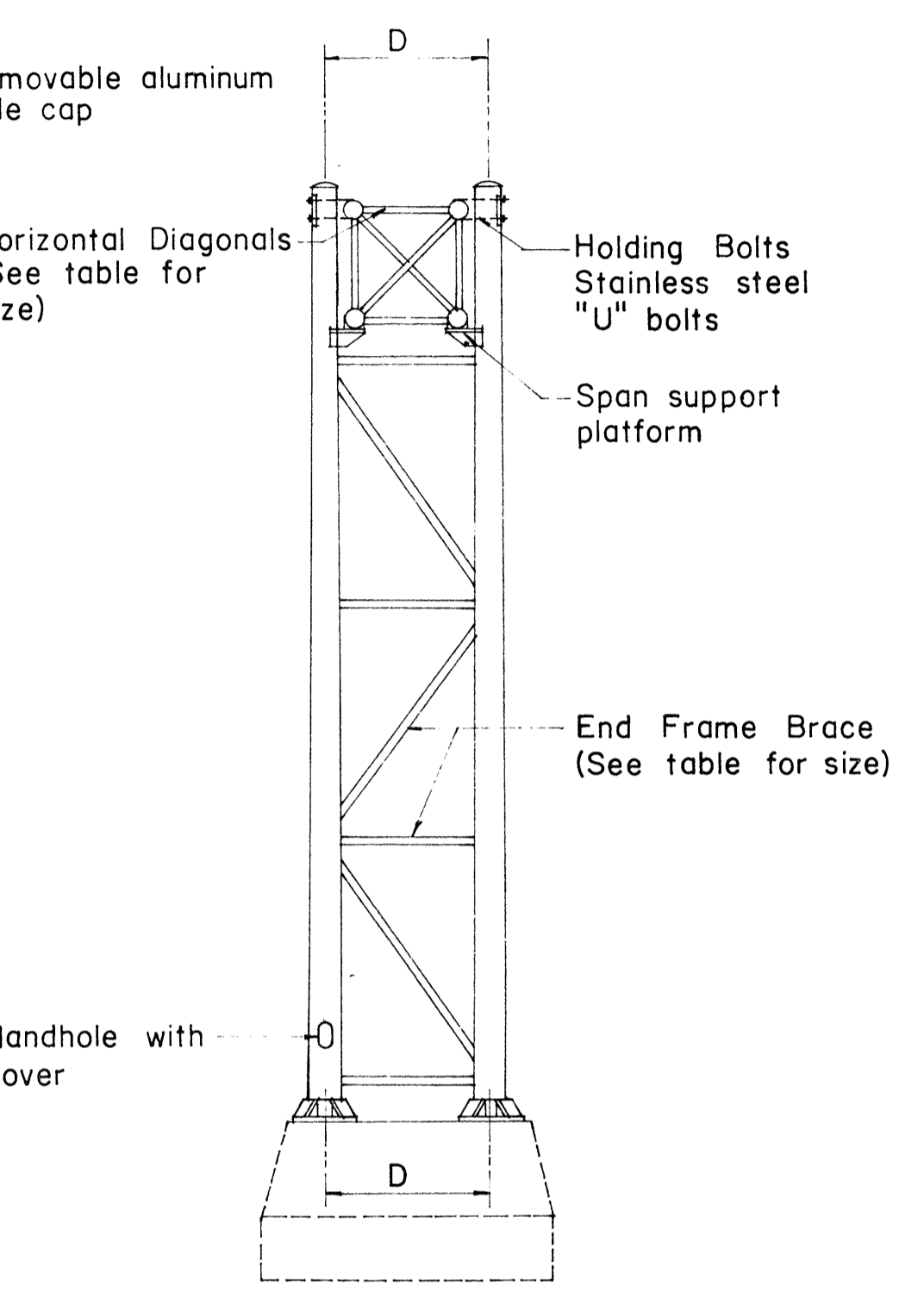
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	P-078-1(21)	1980	50	231



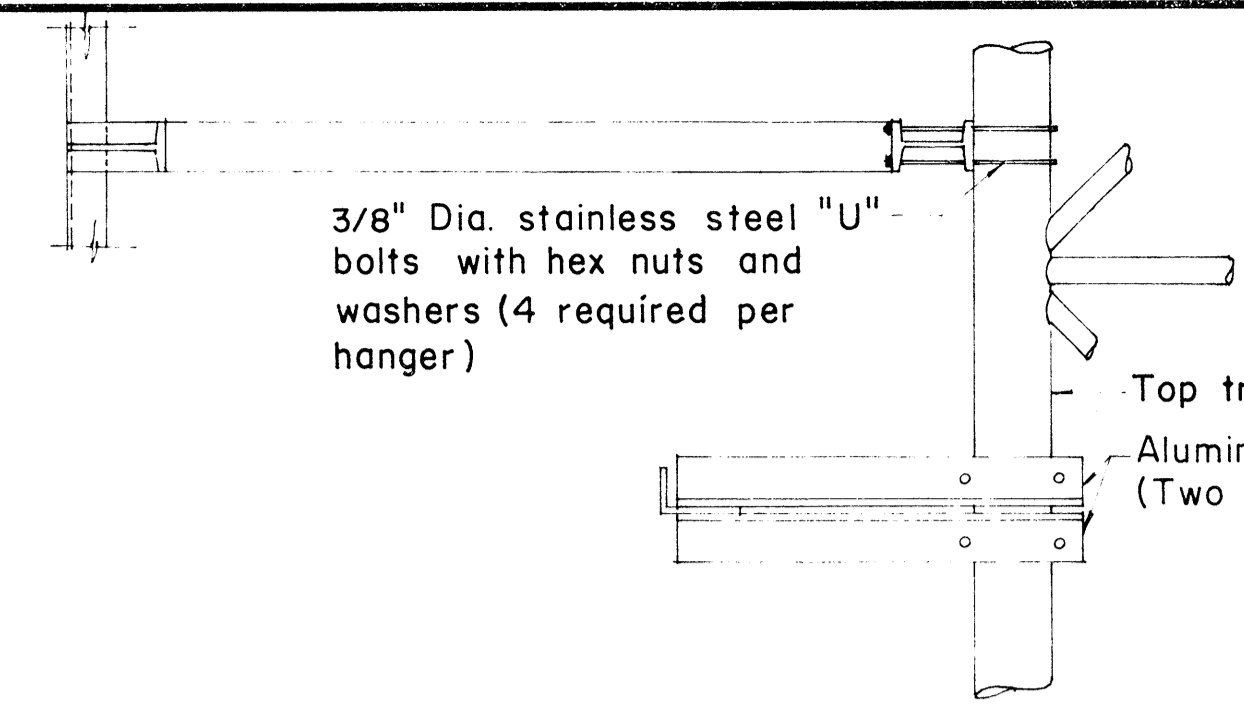
PLAN



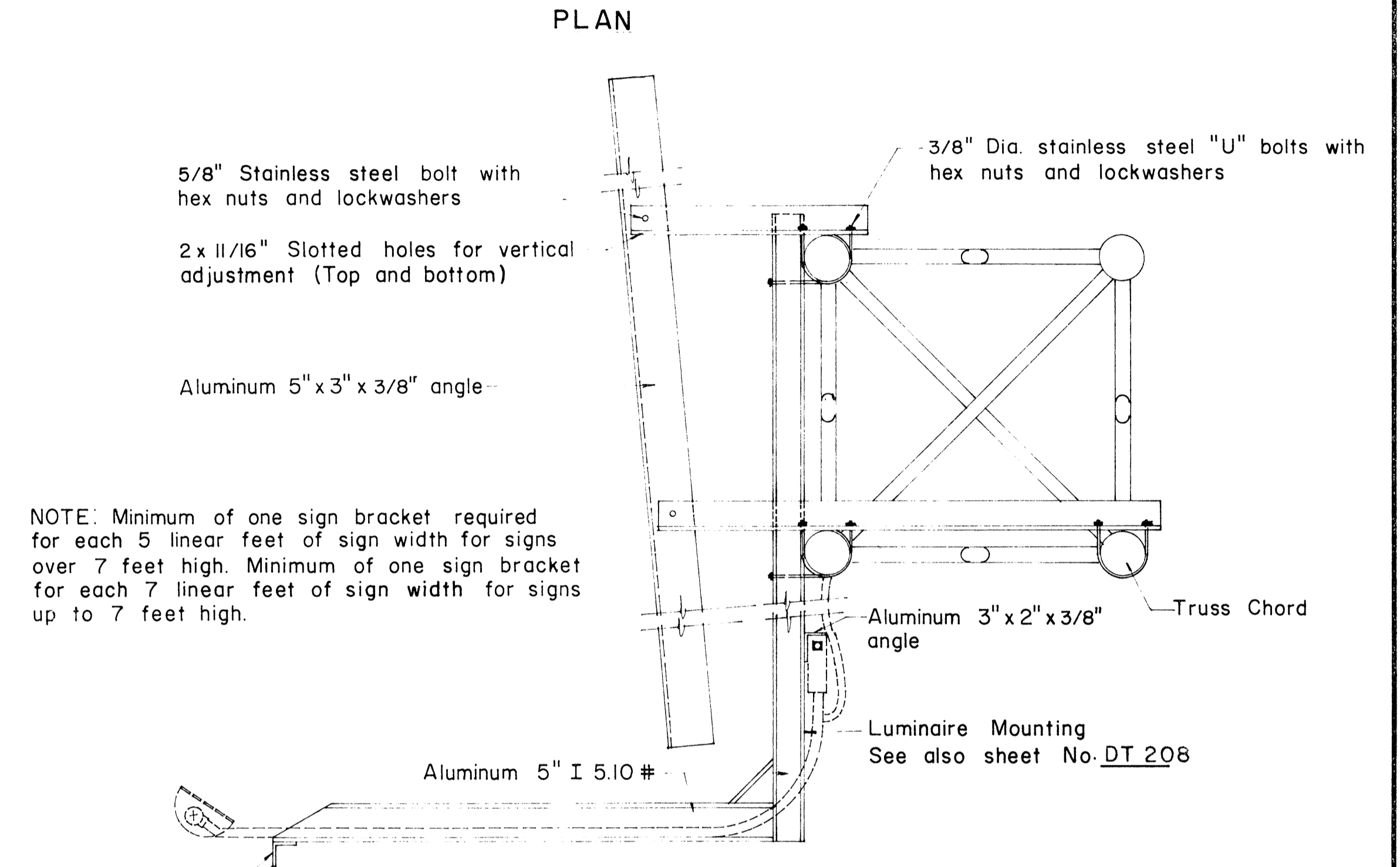
ELEVATION
TYPE "F"



END VIEW



PLAN

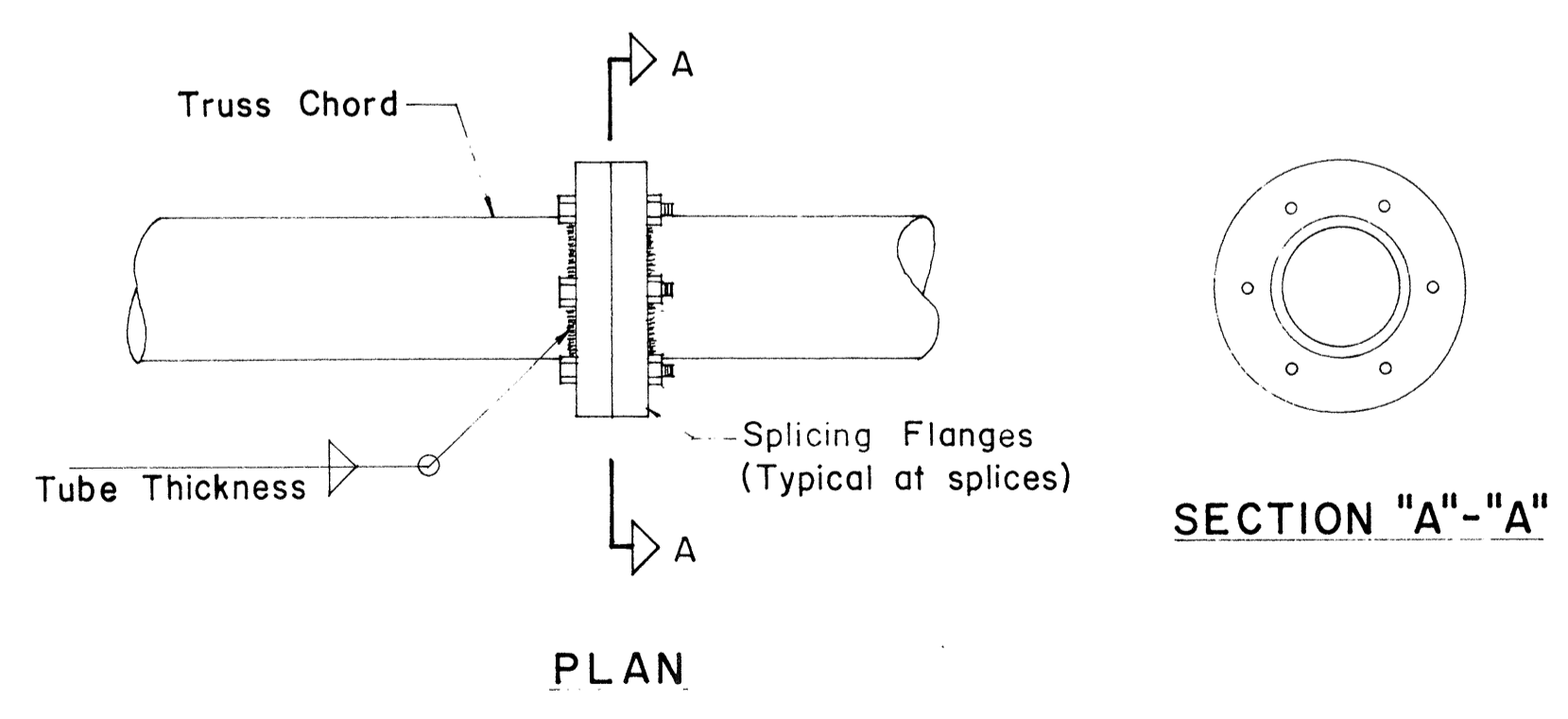


ELEVATION

SIGN BRACKET ASSEMBLY

NOTE: Minimum of one sign bracket required for each 5 linear feet of sign width for signs over 7 feet high. Minimum of one sign bracket for each 7 linear feet of sign width for signs up to 7 feet high.

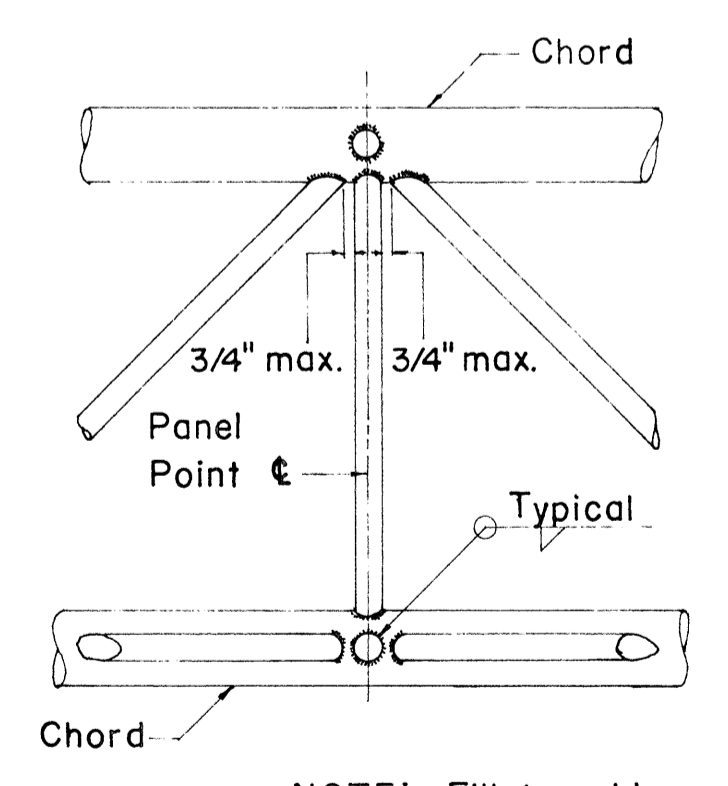
SIGN NO.	A	B	C	D	E	F	SPAN SECTIONS REQ'D.	CHORD SIZE	END FRAME SHAFT SIZE AND TAPER	VERTICAL DIAGONAL SIZE	HORIZONTAL DIAGONAL SIZE	INTERNAL DIAGONAL SIZE	END FRAME BRACE SIZE	BOLT CIRCLE DIA.	ANCHORAGE



PLAN

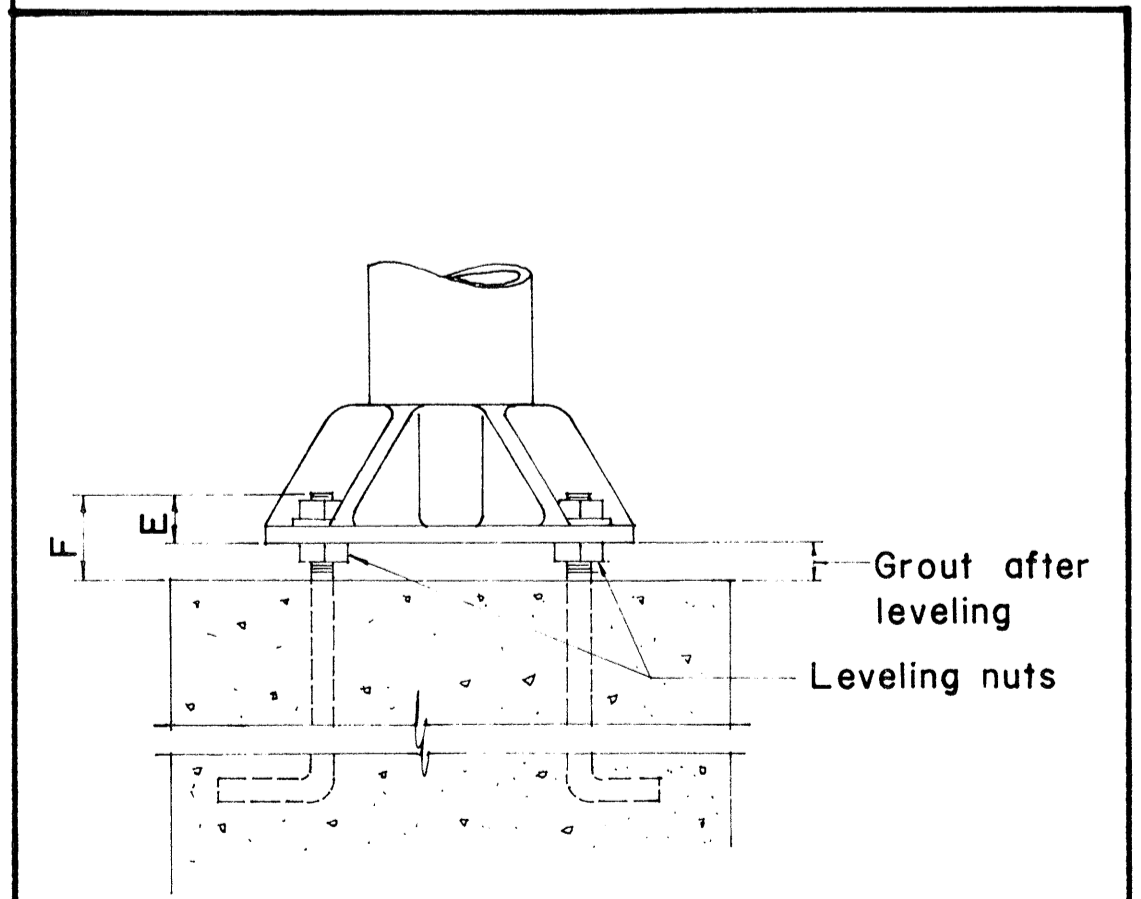
DETAIL OF CHORD SPLICES

SECTION "A"- "A"



TYPICAL JOINT DET.

NOTE: Fillet weld size to be tube thickness plus 1/16".



DETAIL OF BASE

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

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

NO.	REVISION	APPROVED BY	DATE

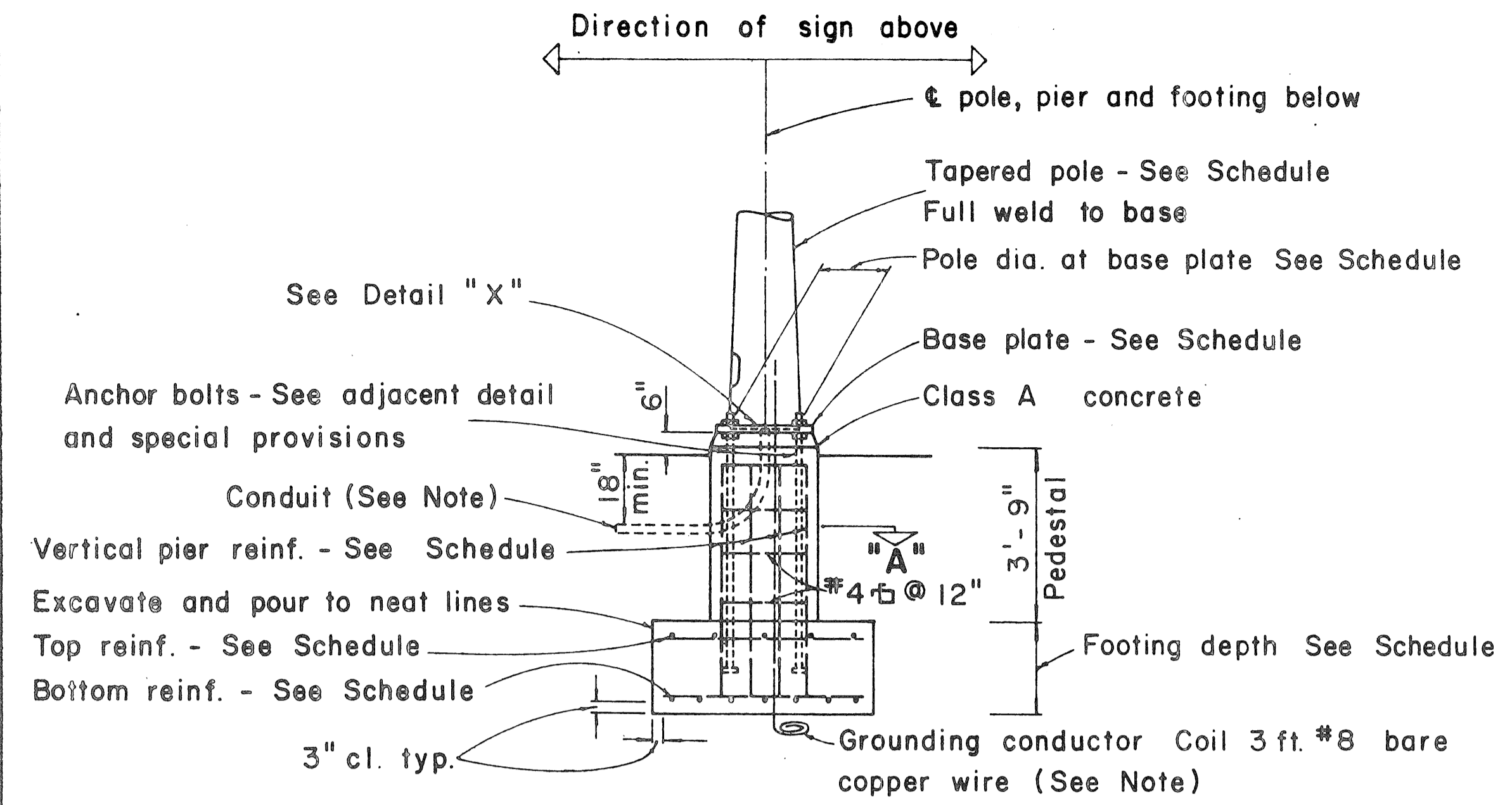
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

TYPE "F"
OVERHEAD SIGN SUPPORT
BOX TRUSS TYPE
ALUMINUM

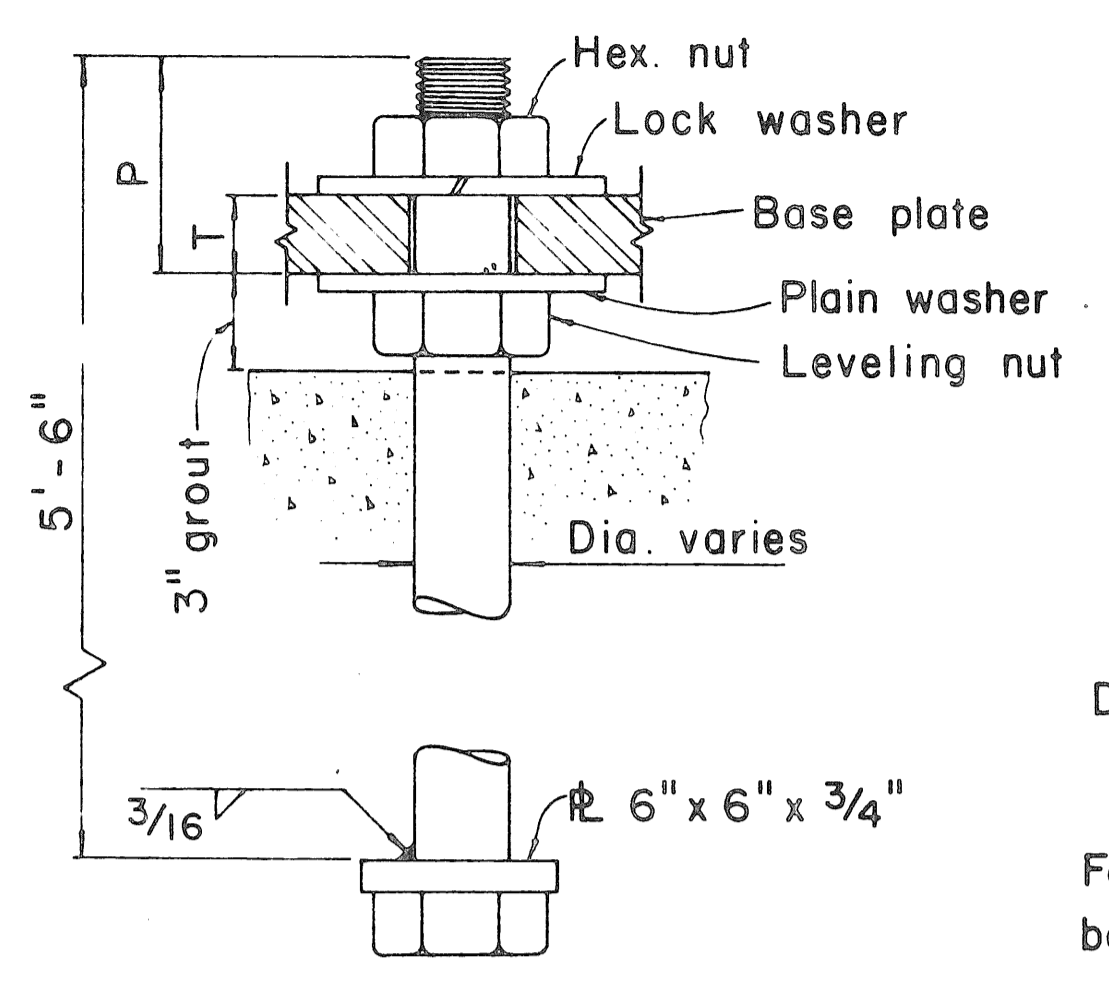
SHEET No. 1 OF 2 SHEETS DT 201

DATE: _____
 DESIGNED BY: _____
 CHECKED BY: _____
 DRAWN BY: _____
 TRACED BY: _____
 ORIGINAL PLAN: _____
 NOTE BOOK: _____
 No. _____

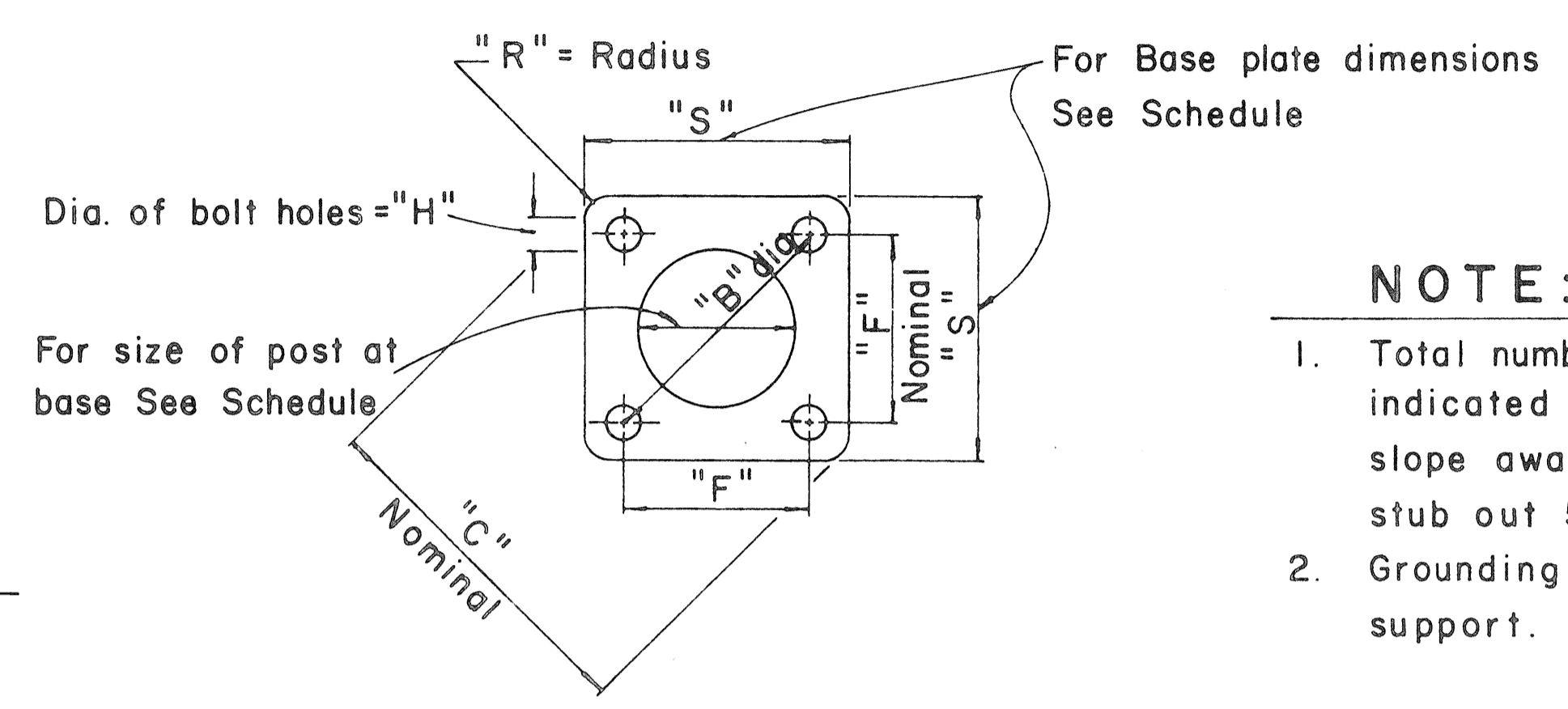
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-078-1(01)	1960	77	100



TYPICAL POLE FOUNDATION DETAIL

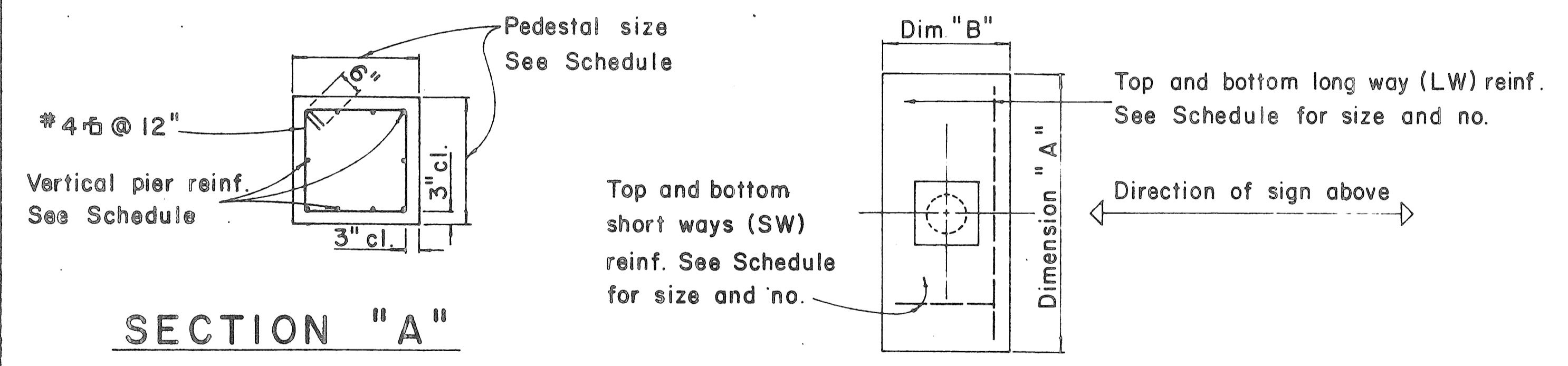


TYPICAL ANCHOR BOLT 4 REQ'D



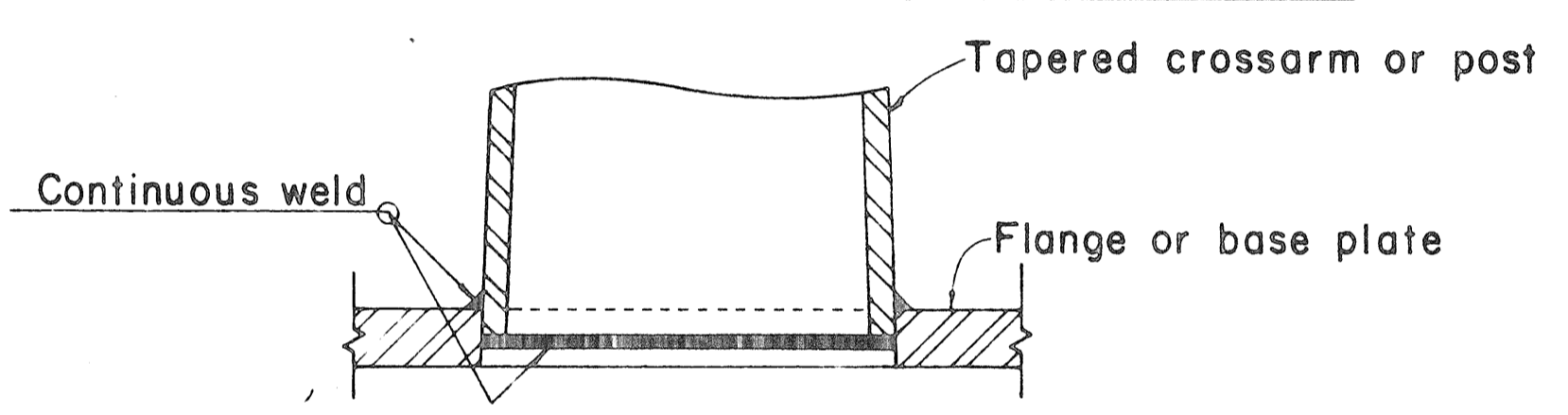
TYPICAL BASE PLATE

- NOTE:**
- Total number of conduits into pole foundation as indicated on Lighting plans. Conduits shall slope away from pole foundation. Conduit shall stub out 5'-0" min. for direct burial entry.
 - Grounding conductor shall be bonded to sign support.



SECTION "A"

TYPICAL FOOTING DETAIL



DETAIL "X"

FOUNDATION SCHEDULE									
Type	Dimension		Depth	Bot Reinf.		Top Reinf.		Pedestal	
	A	B		L. W.	S. W.	L. W.	S. W.	Size	Vert. Reinf.
I	7'-0"	3'-0"	2'-0"	3-#6	8-#4	#4 @ 12 each way		1'-11"	10-#5
II	9'-0"	4'-6"	2'-0"	6-#6	10-#4	Do.		2'-6"	10-#7
III	10'-0"	5'-0"	2'-0"	5-#8	11-#4	Do.		2'-6"	10-#8
IV	12'-0"	6'-0"	2'-0"	7-#9	13-#4	Do.		2'-9"	10-#10
V	14'-0"	7'-0"	2'-0"	8-#11	19-#4	Do.		2'-9"	10-#11

APPROVAL RECOMMENDED:
Etschi Tanaka
 TRAFFIC ENGINEER
 12/29/69
 DATE

APPROVED:
Duke J. ...
 ASSISTANT CHIEF, ENGINEERING
 12-30-69
 DATE

NO.	REVISION	APPROVED BY	DATE
1	Foundation Schedule	R.C.	8/14/60

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

DETAILS & SCHEDULES

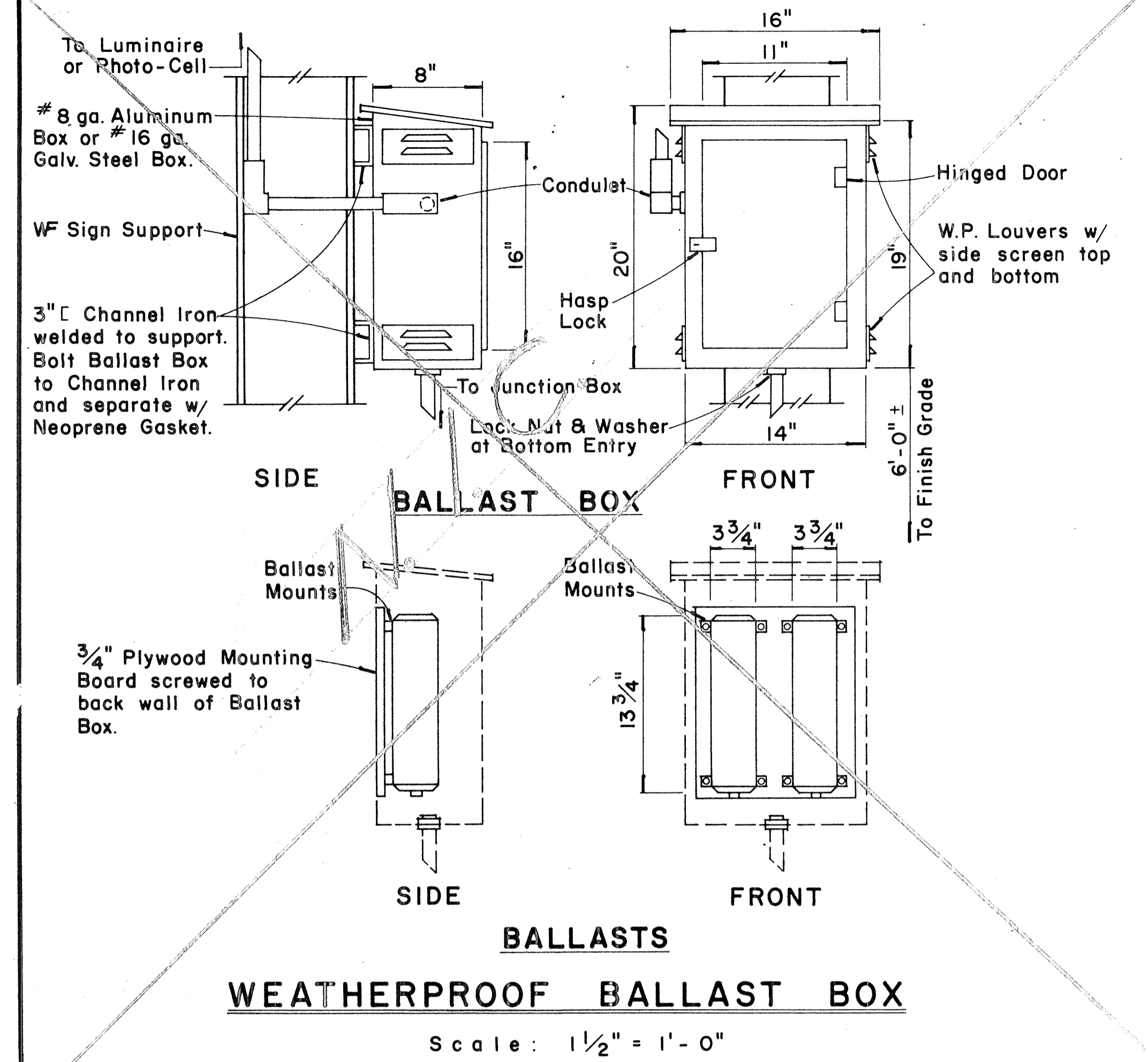
NOT TO SCALE

SHEET No. 15 OF SHEETS DT 202

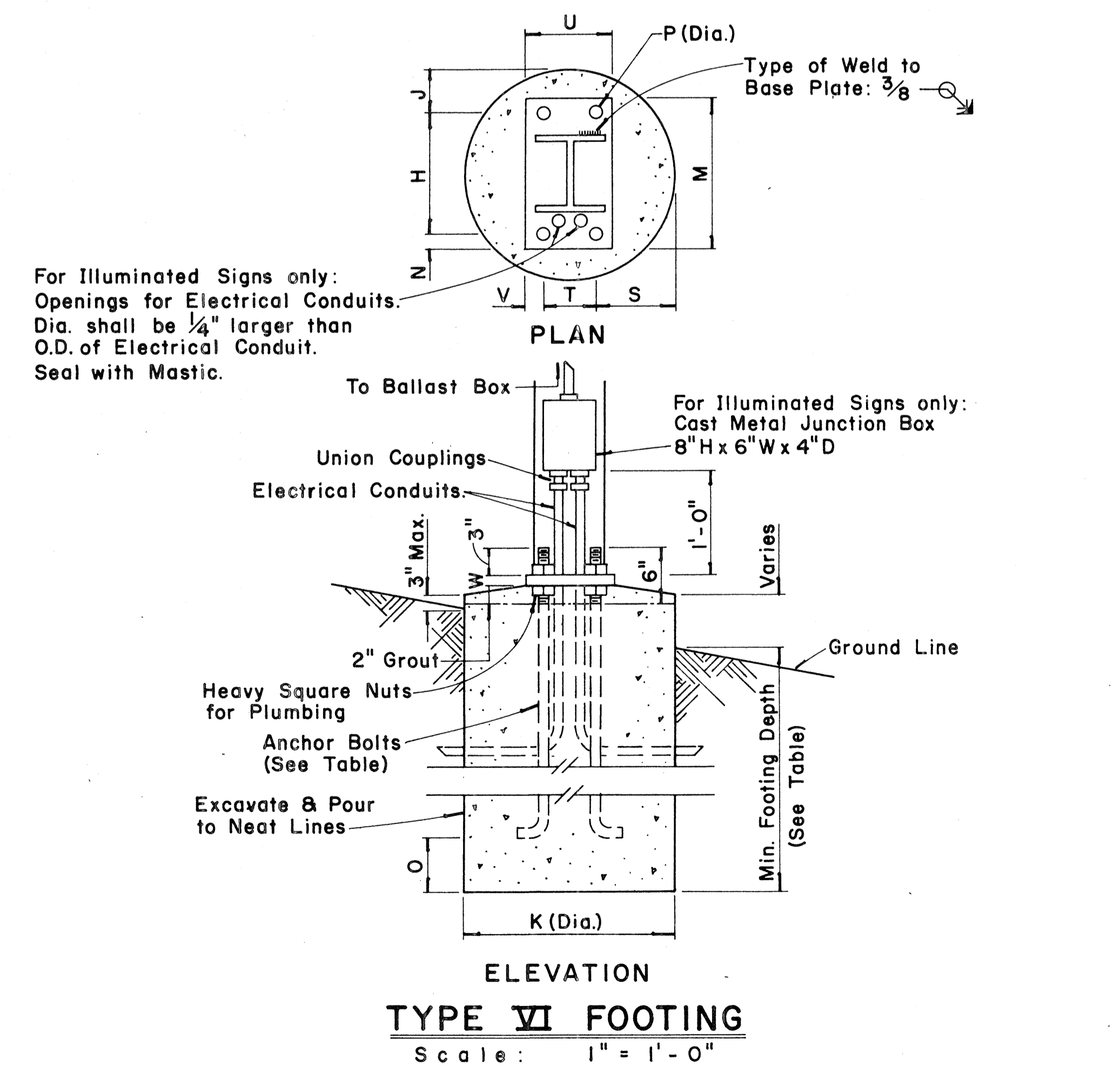
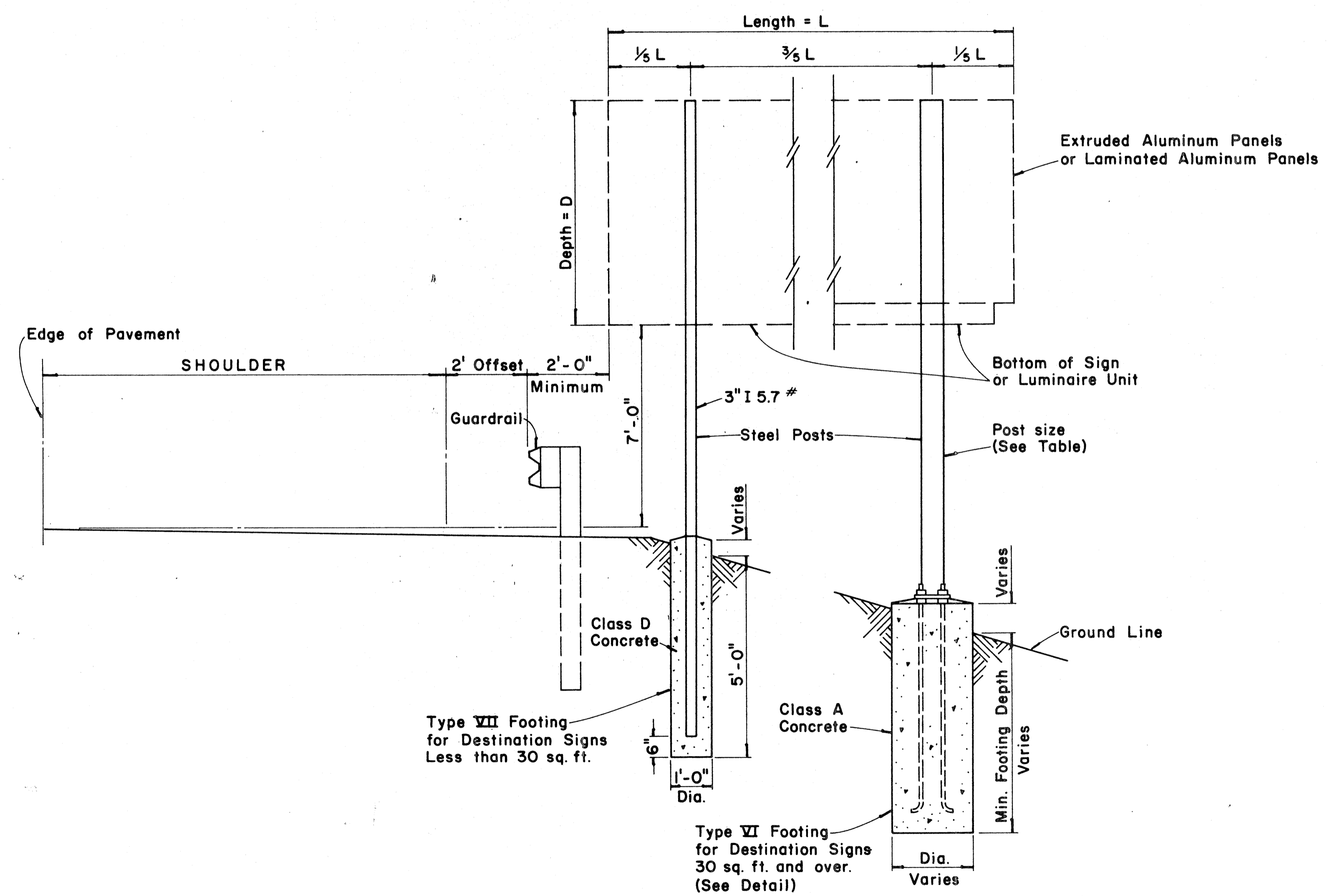
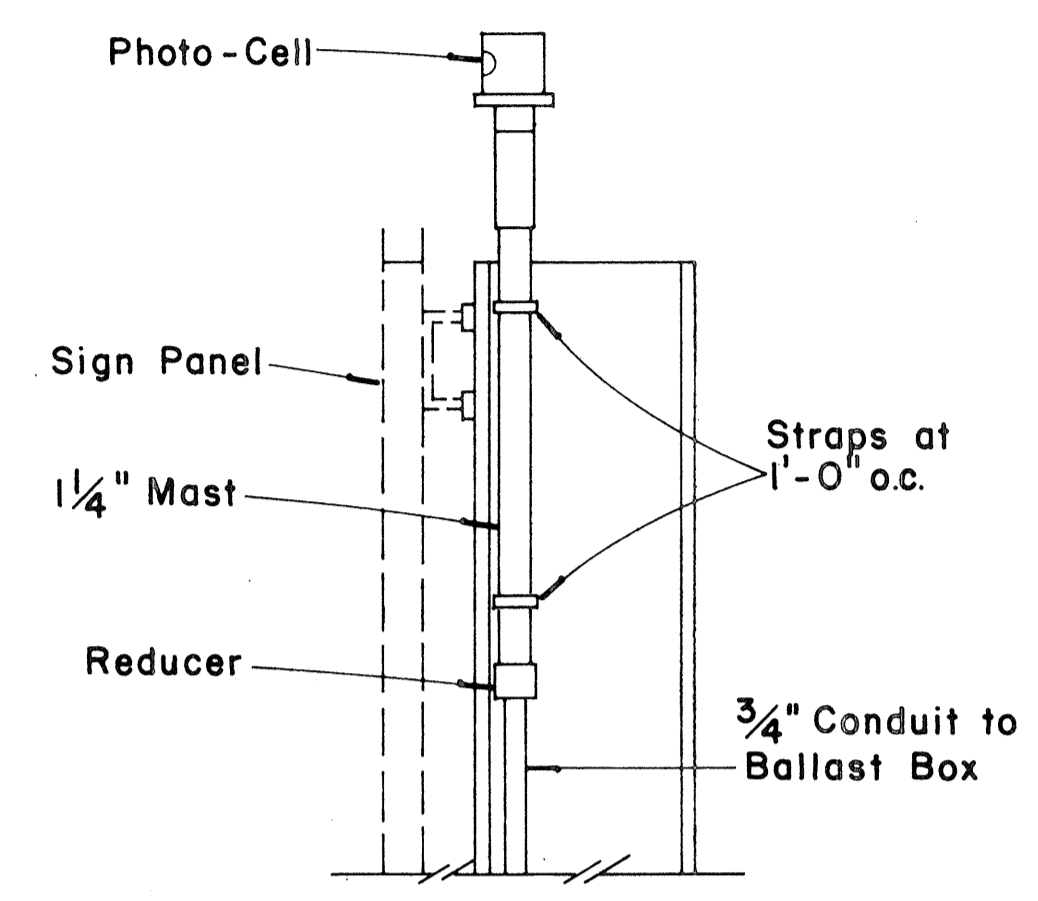
DATE: _____
 CHECKED BY: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 CONSULTED BY: _____
 GENERAL PLAN: _____
 NOTES BOOK: _____
 NO. _____

* 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.

DATA TABLE FOR TYPE VI FOOTING																	
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"	15 3/8"	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'															
12 WF 50	250 sq. ft.	23'															



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(21)	1980	33	234



APPROVAL RECOMMENDED:
Eishi Tanaka 12/29/62
 TRAFFIC ENGINEER DATE

APPROVED:
Julius J. Salas 12-30-69
 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. 16 OF 24 SHEETS DT 203

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

TYPICAL DESTINATION & GROUND MOUNTED EXPRESSWAY SIGN

Not to Scale

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	P-070-1(21)	1960	100	234

(OVERHEAD SIGNS)
SUPPORT SPACING TABLE

PANEL THICK.	LENGTH OF SIGN A	NO. OF SUPPORTS	OVERHANG SUPPORT SPACING	
			B	C or C ₁
1"	6'-0"	2	12"	48"
1"	6'-6"	2	15"	48"
1"	7'-0"	2	15"	54"
1"	7'-6"	2	18"	54"
1"	8'-0"	2	18"	60"
1"	8'-6"	2	20"	62"
1"	9'-0"	2	22"	64"
1"	9'-6"	2	23"	68"
1"	10'-0"	2	24"	72"
1"	10'-6"	2	24"	78"
1"	11'-0"	2	24"	84"
1"	11'-6"	2	27"	84"
1"	12'-0"	2	30"	84"
1"	12'-6"	2	30"	90"
1"	13'-0"	2	30"	96"
1"	13'-6"	2	30"	102"
1"	14'-0"	2	30"	108"
1"	14'-6"	2	36"	102"
1"	15'-0"	2	36"	108"
1"	15'-6"	3	24"	69"
1"	16'-0"	3	24"	72"
1"	16'-6"	3	24"	75"
1"	17'-0"	3	24"	78"
1"	17'-6"	3	24"	81"
1"	18'-0"	3	24"	84"
1"	18'-6"	3	27"	84"
1"	19'-0"	3	27"	87"
1"	19'-6"	3	27"	90"
1"	20'-0"	3	30"	90"
1"	20'-6"	3	30"	93"
1"	21'-0"	3	30"	96"
1"	21'-6"	3	33"	96"
1"	22'-0"	3	36"	96"
1"	22'-6"	3	36"	99"
1"	23'-0"	3	36"	102"
1"	23'-6"	3	36"	105"
1"	24'-0"	3	36"	108"

APPROVAL RECOMMENDED:
Eishi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

APPROVED:
[Signature] 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

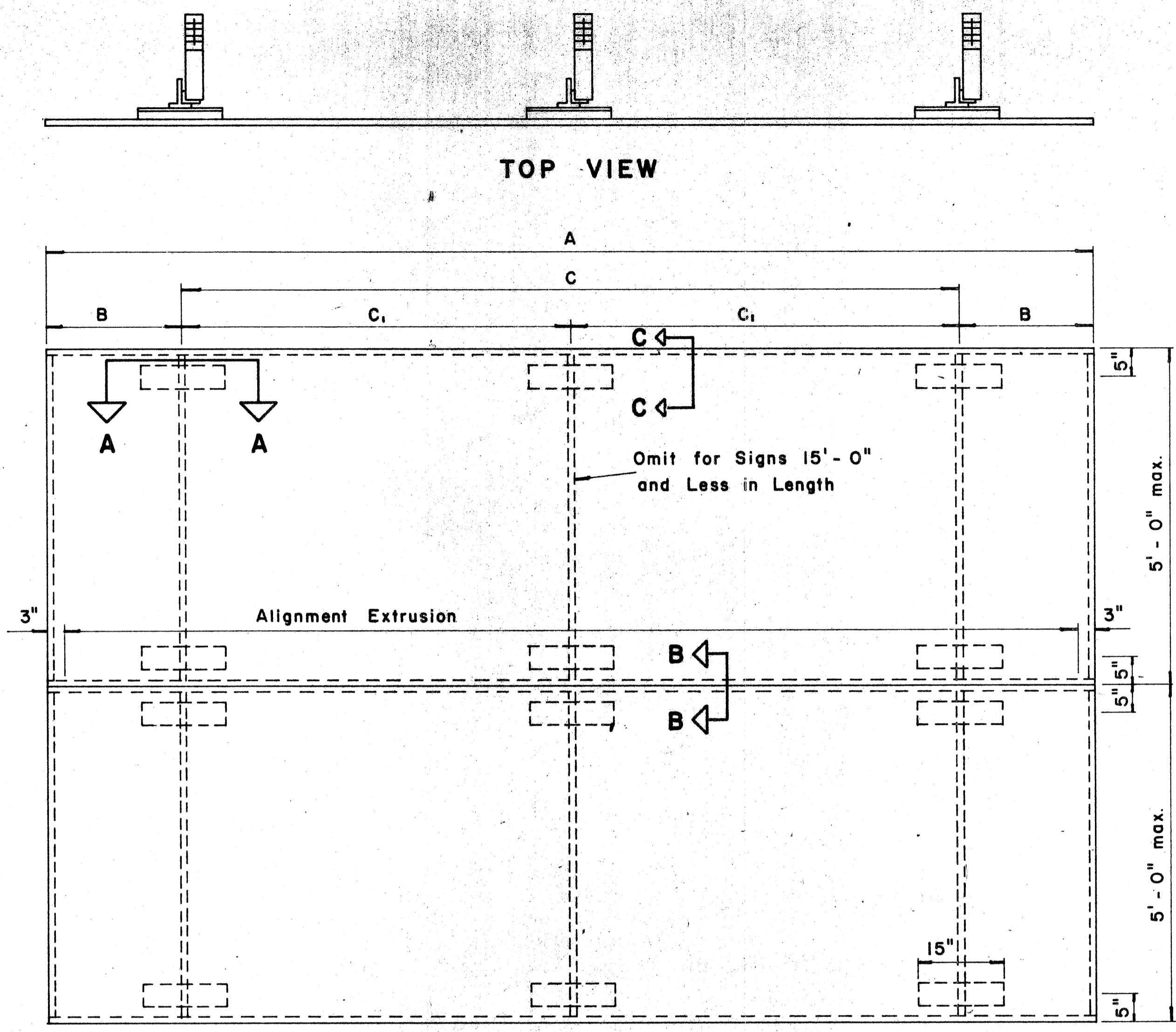
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

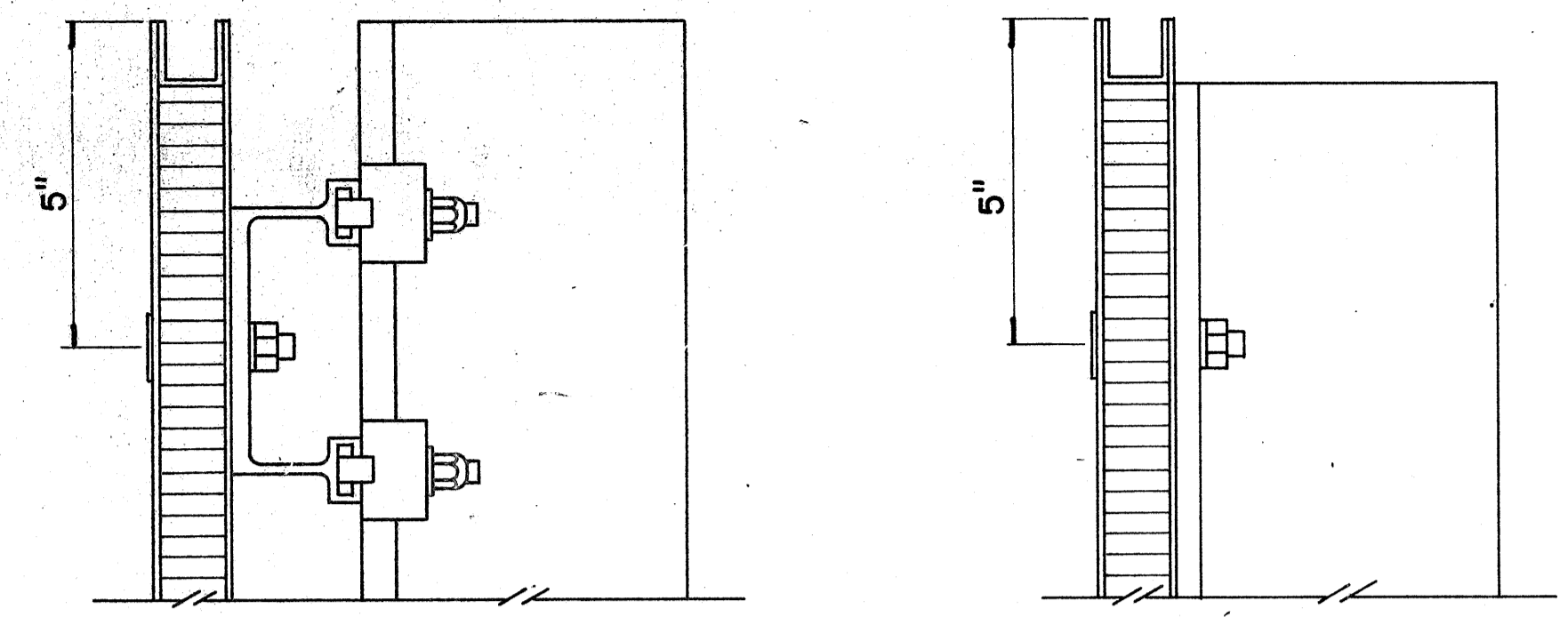
STANDARD DETAILS
LAMINATED ALUMINUM
SIGN PANELS
(OVERHEAD)

Scale: As Shown

SHEET No. 100 OF 205 SHEETS DT 205

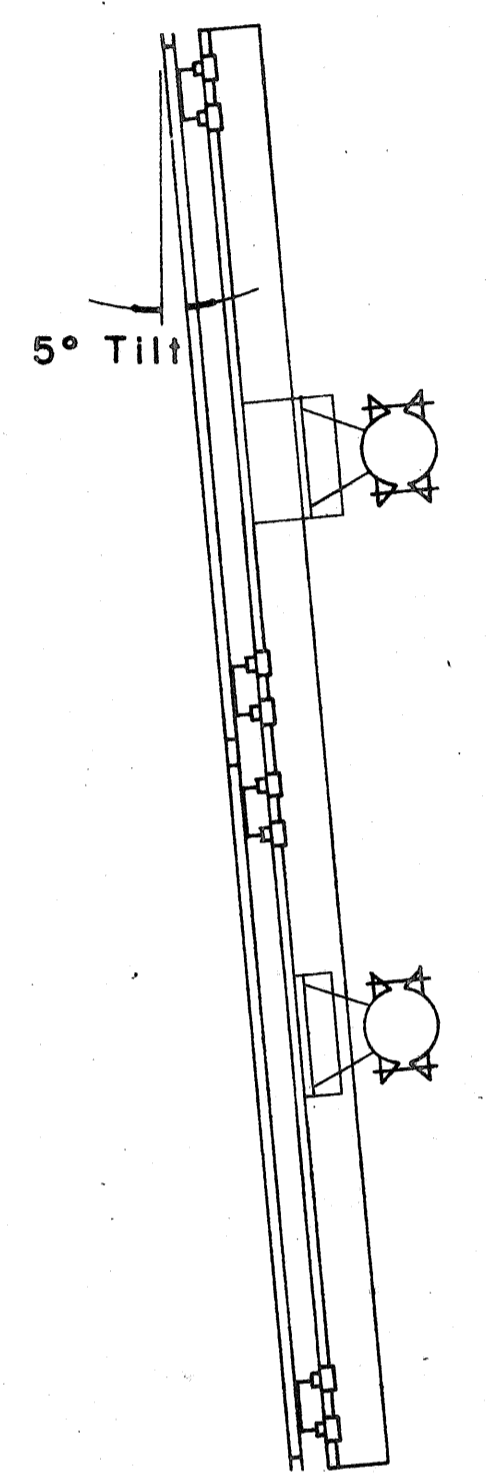


ELEVATION
TYPICAL SIGN ASSEMBLY
Scale: $\frac{3}{4}$ " = 1'-0"

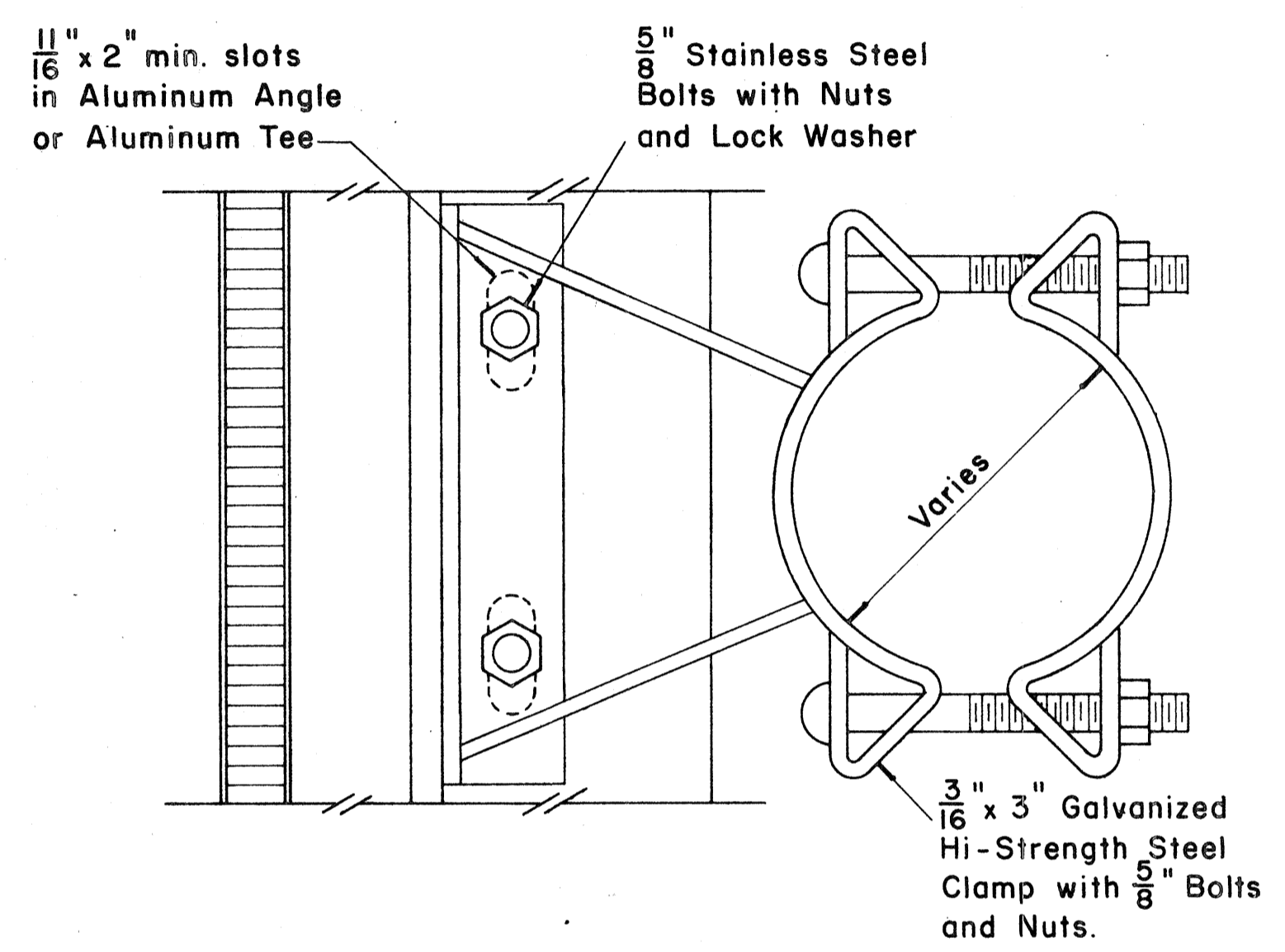


SECTION "C-C"
Scale: $\frac{3}{8}$ " = 1"

SECTION "C-C"
(Alternate)
Scale: $\frac{3}{8}$ " = 1"

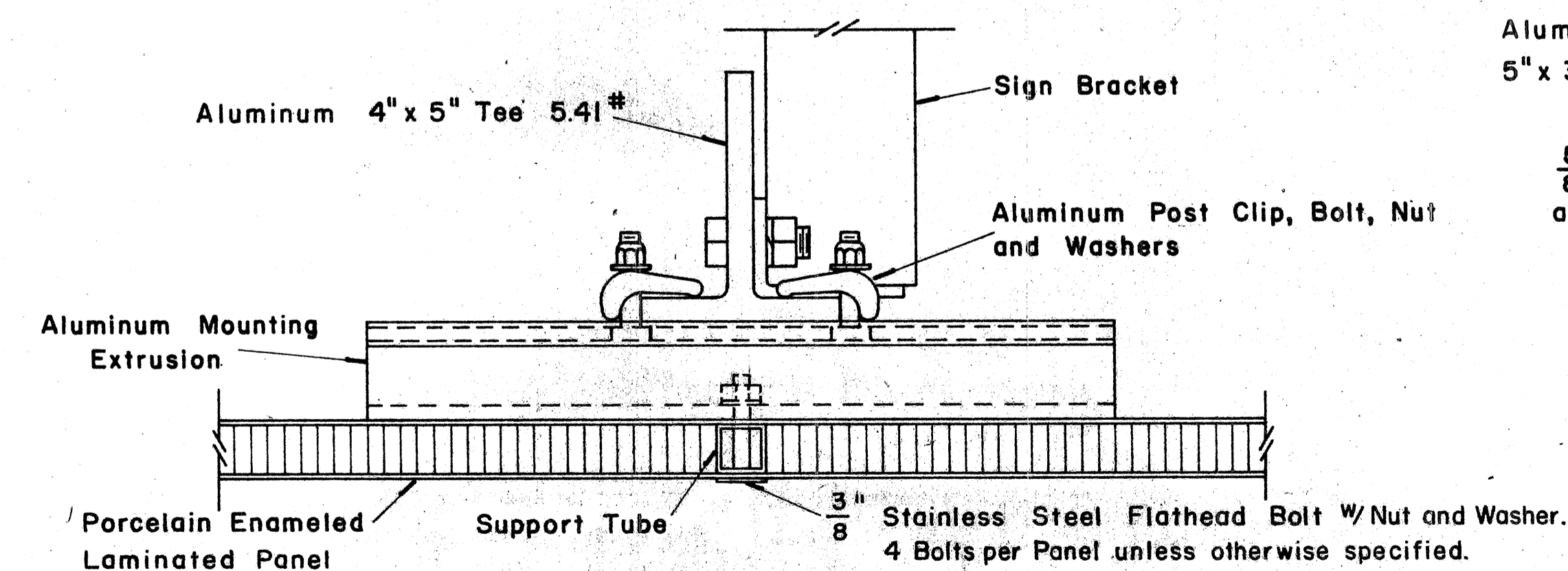


SIDE VIEW

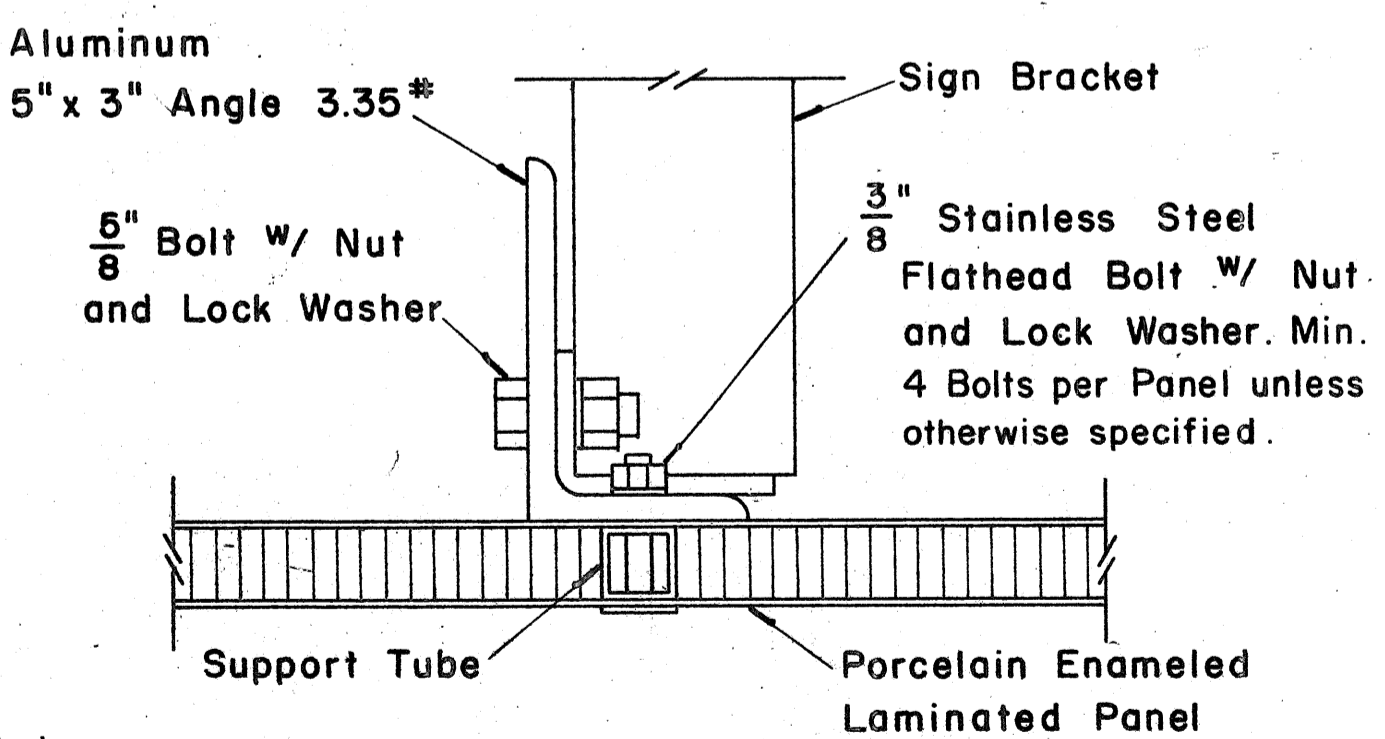


SIGN BRACKET ASSEMBLY
Scale: $\frac{3}{8}$ " = 1"

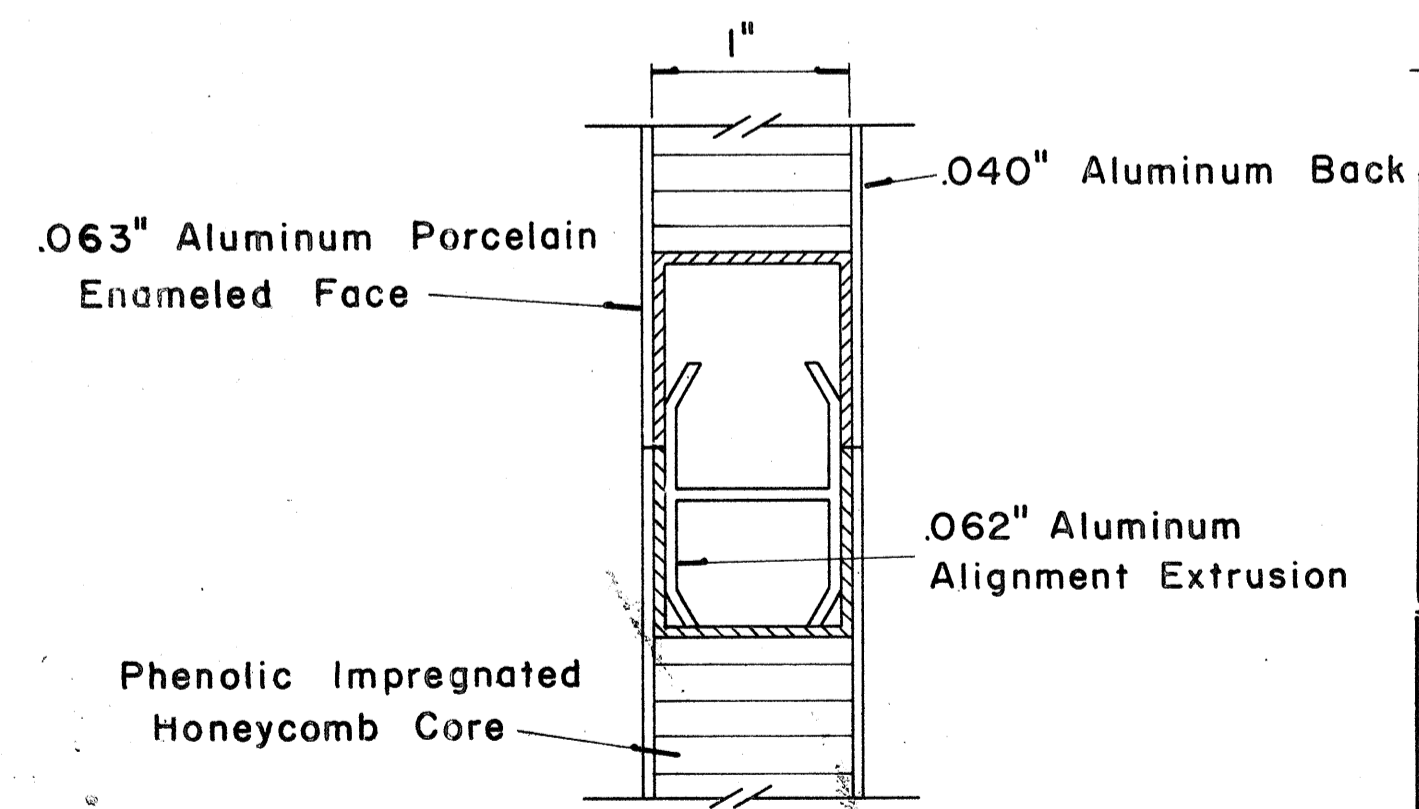
NOTE: For additional details of Sign Bracket Assembly, see Standard Detail Sheet "Overhead Sign Supports."



SECTION "A-A"
Scale: $\frac{3}{8}$ " = 1"



SECTION "A-A"
(Alternate)
Scale: $\frac{3}{8}$ " = 1"



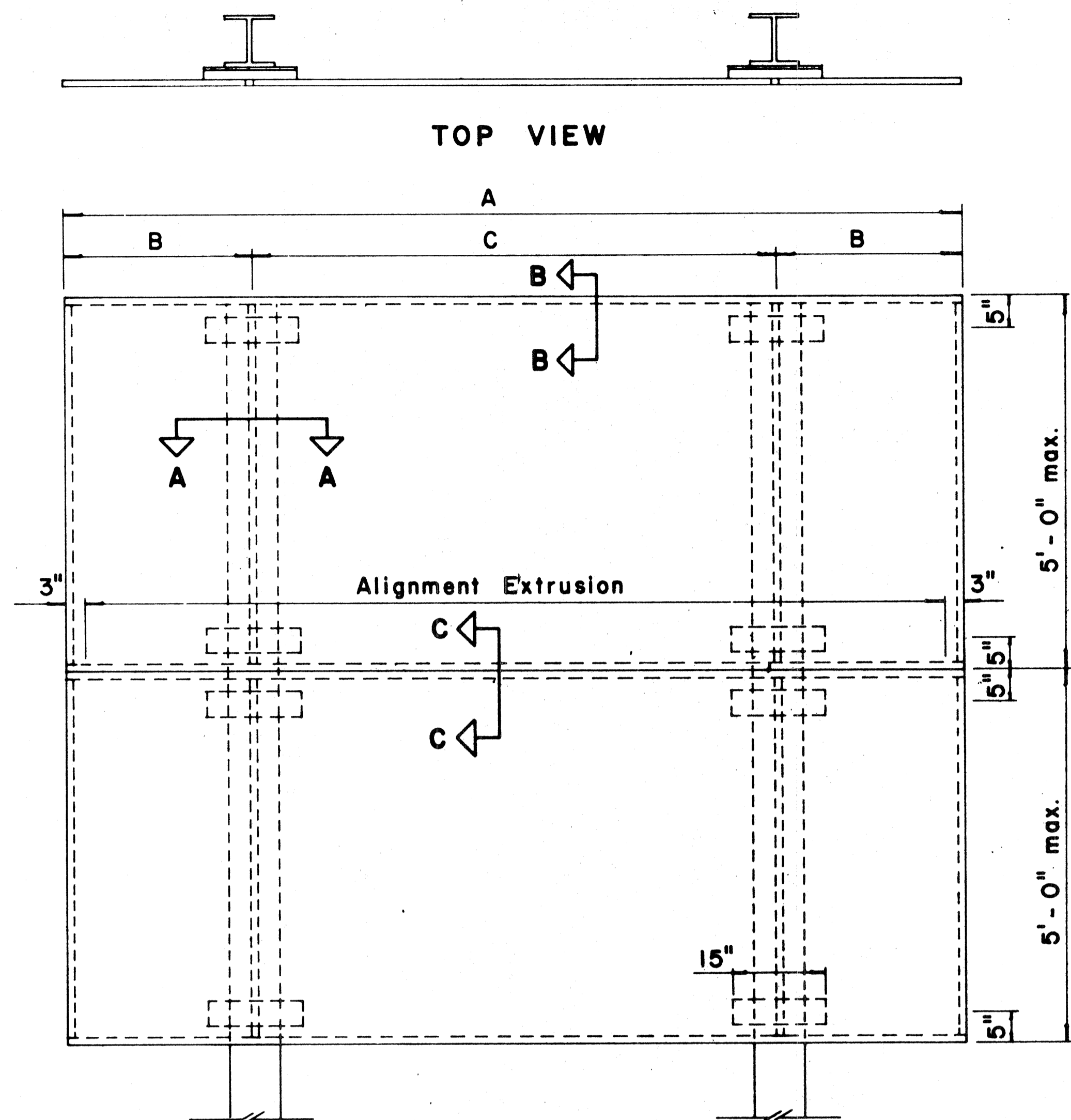
CLOSURE DETAIL
SECTION "B-B"
FULL SCALE

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
DESIGNED BY: _____
CHECKED BY: _____
NOTE BOOK No. _____

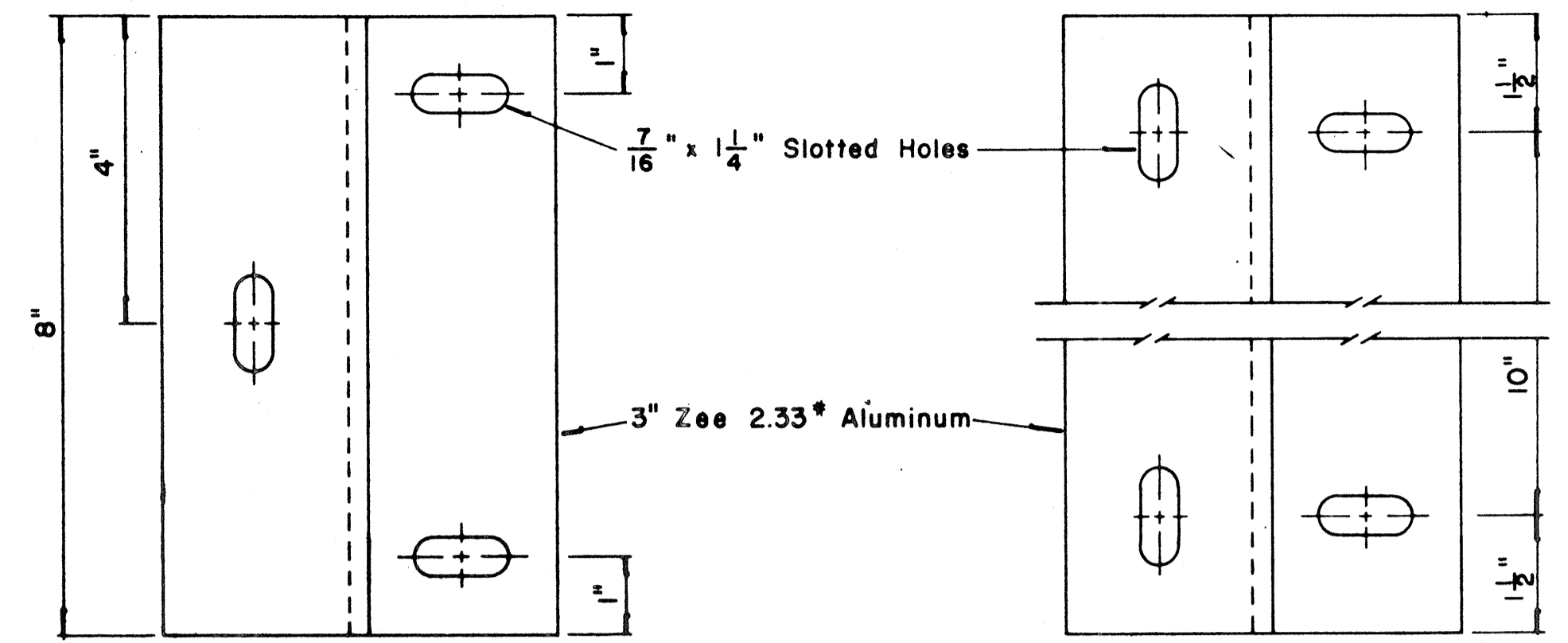
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-07B-1(2)	1980	101	234

(GROUND MOUNTED SIGNS)
SUPPORT SPACING TABLE

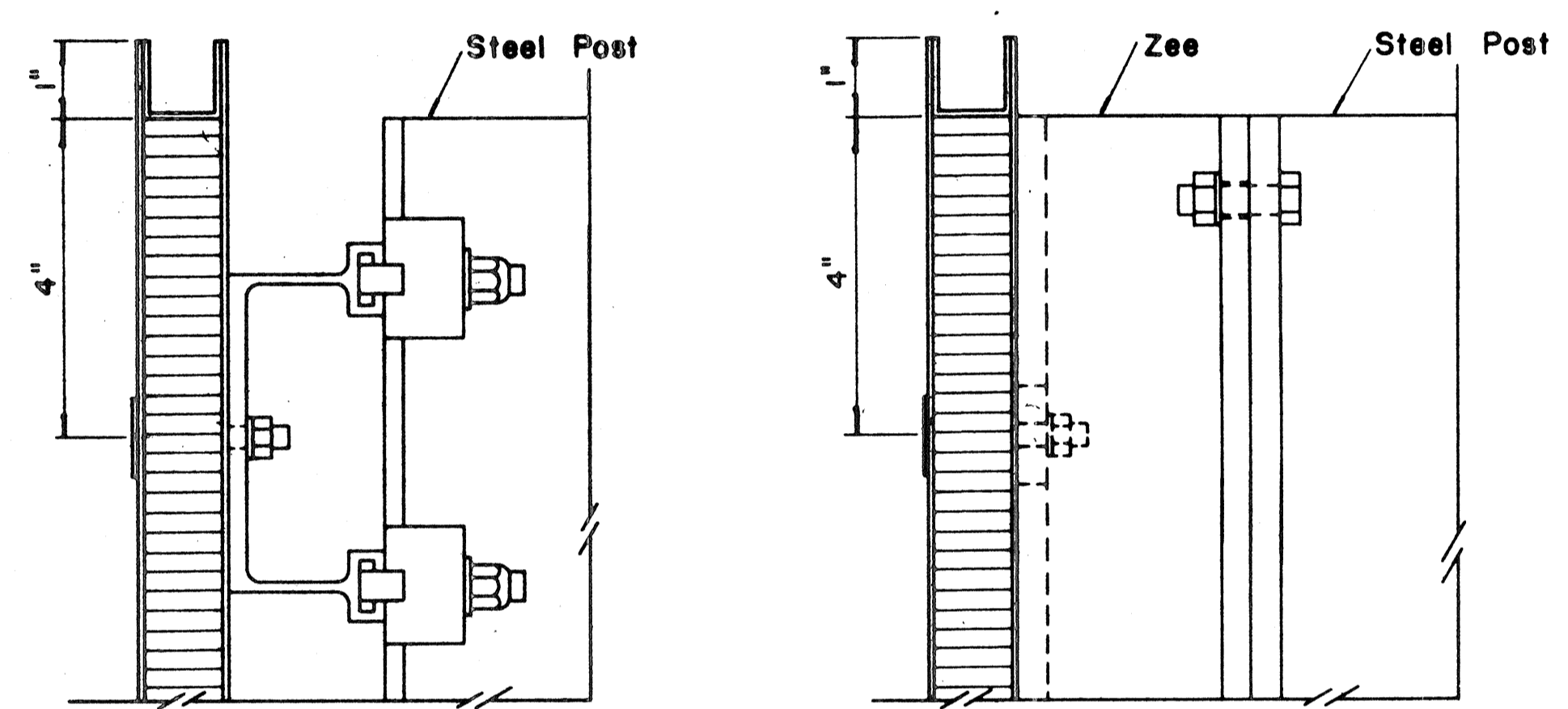
PANEL THICK.	LENGTH OF SIGN A	NO. OF SUPPORTS	OVERHANG		SUPPORT SPACING
			B	C	
1"	6'-0"	2	12"	48"	
1"	6'-6"	2	15"	48"	
1"	7'-0"	2	15"	54"	
1"	7'-6"	2	18"	54"	
1"	8'-0"	2	18"	60"	
1"	8'-6"	2	20"	62"	
1"	9'-0"	2	22"	64"	
1"	9'-6"	2	23"	68"	
1"	10'-0"	2	24"	72"	
1"	10'-6"	2	24"	78"	
1"	11'-0"	2	24"	84"	
1"	11'-6"	2	27"	84"	
1"	12'-0"	2	30"	84"	
1"	12'-6"	2	30"	90"	
1"	13'-0"	2	30"	96"	
1"	13'-6"	2	30"	102"	
1"	14'-0"	2	30"	108"	
1"	14'-6"	2	36"	102"	
1"	15'-0"	2	36"	108"	
2.5"	15'-6"	2	36"	114"	
2.5"	16'-0"	2	39"	114"	
2.5"	16'-6"	2	39"	120"	
2.5"	17'-0"	2	39"	126"	
2.5"	17'-6"	2	42"	126"	
2.5"	18'-0"	2	42"	132"	
2.5"	18'-6"	2	45"	132"	
2.5"	19'-0"	2	45"	138"	
2.5"	19'-6"	2	45"	144"	
2.5"	20'-0"	2	48"	144"	
2.5"	20'-6"	2	48"	150"	
2.5"	21'-0"	2	51"	150"	
2.5"	21'-6"	2	51"	156"	
2.5"	22'-0"	2	51"	162"	
2.5"	22'-6"	2	54"	162"	
2.5"	23'-0"	2	54"	168"	
2.5"	23'-6"	2	54"	174"	
2.5"	24'-0"	2	57"	174"	



TYPICAL SIGN ASSEMBLY
Scale: $\frac{3}{4}$ " = 1'-0"

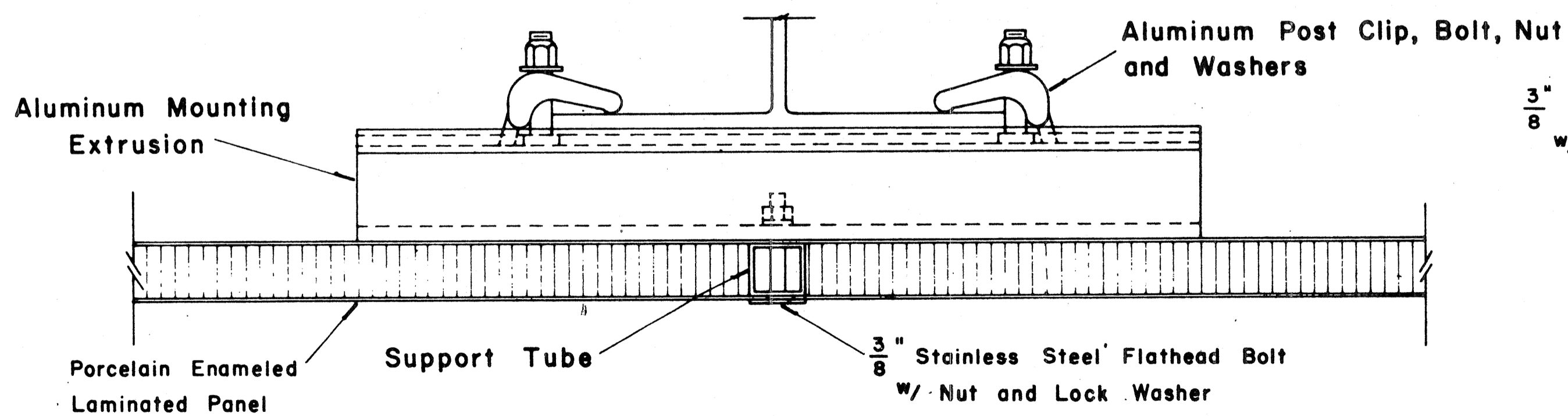


ZEE MOUNTING DETAILS
Scale: $\frac{1}{2}$ " = 1"

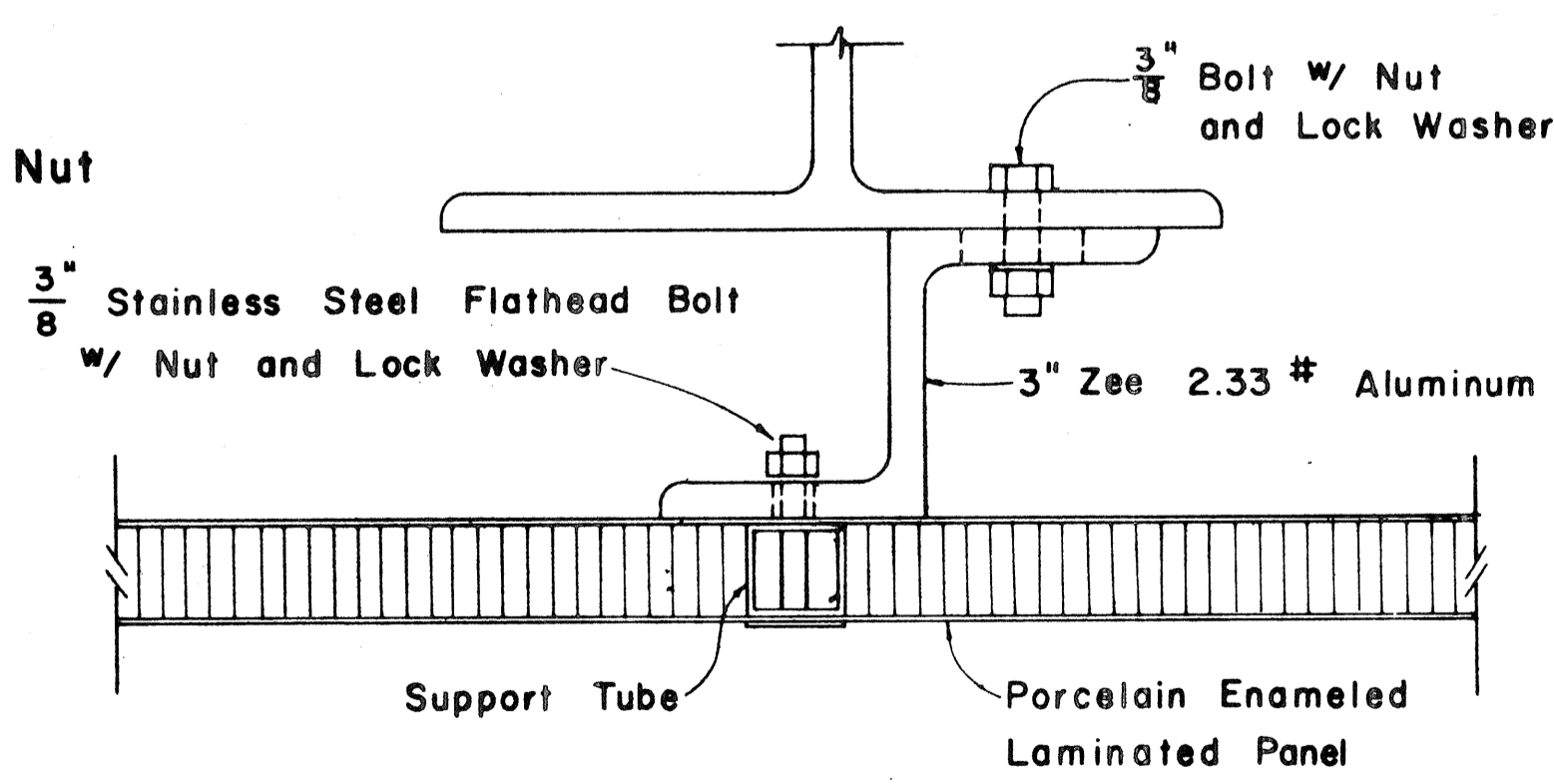


SECTION "B-B"
Scale: $\frac{1}{2}$ " = 1"

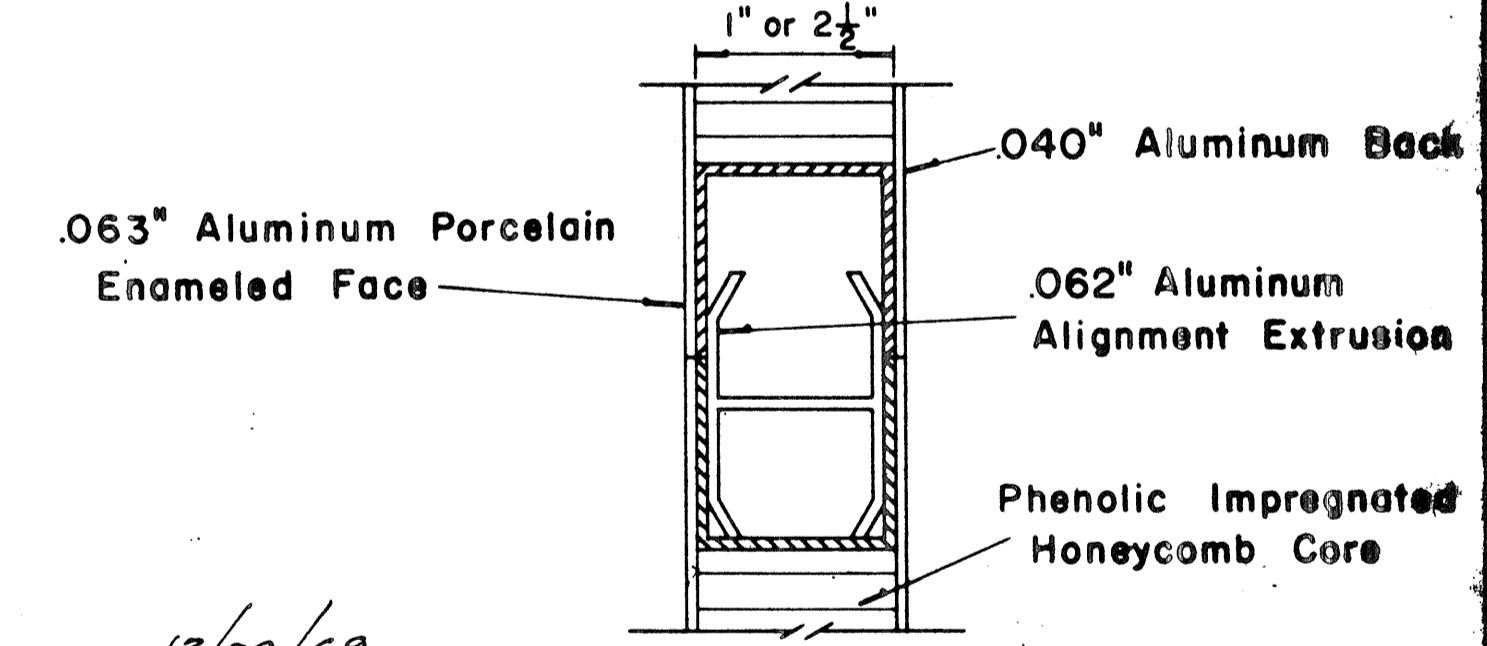
SECTION "B-B" (Alternate)
Scale: $\frac{1}{2}$ " = 1"



SECTION "A-A"
Scale: $\frac{1}{2}$ " = 1"



SECTION "A-A" (Alternate)
Scale: $\frac{1}{2}$ " = 1"



CLOSURE DETAIL
SECTION "C-C"
FULL SCALE

APPROVAL RECOMMENDED:
Etschi Tanaka 12/29/69
TRAFFIC ENGINEER DATE

APPROVED:
John J. [Signature] 12-30-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

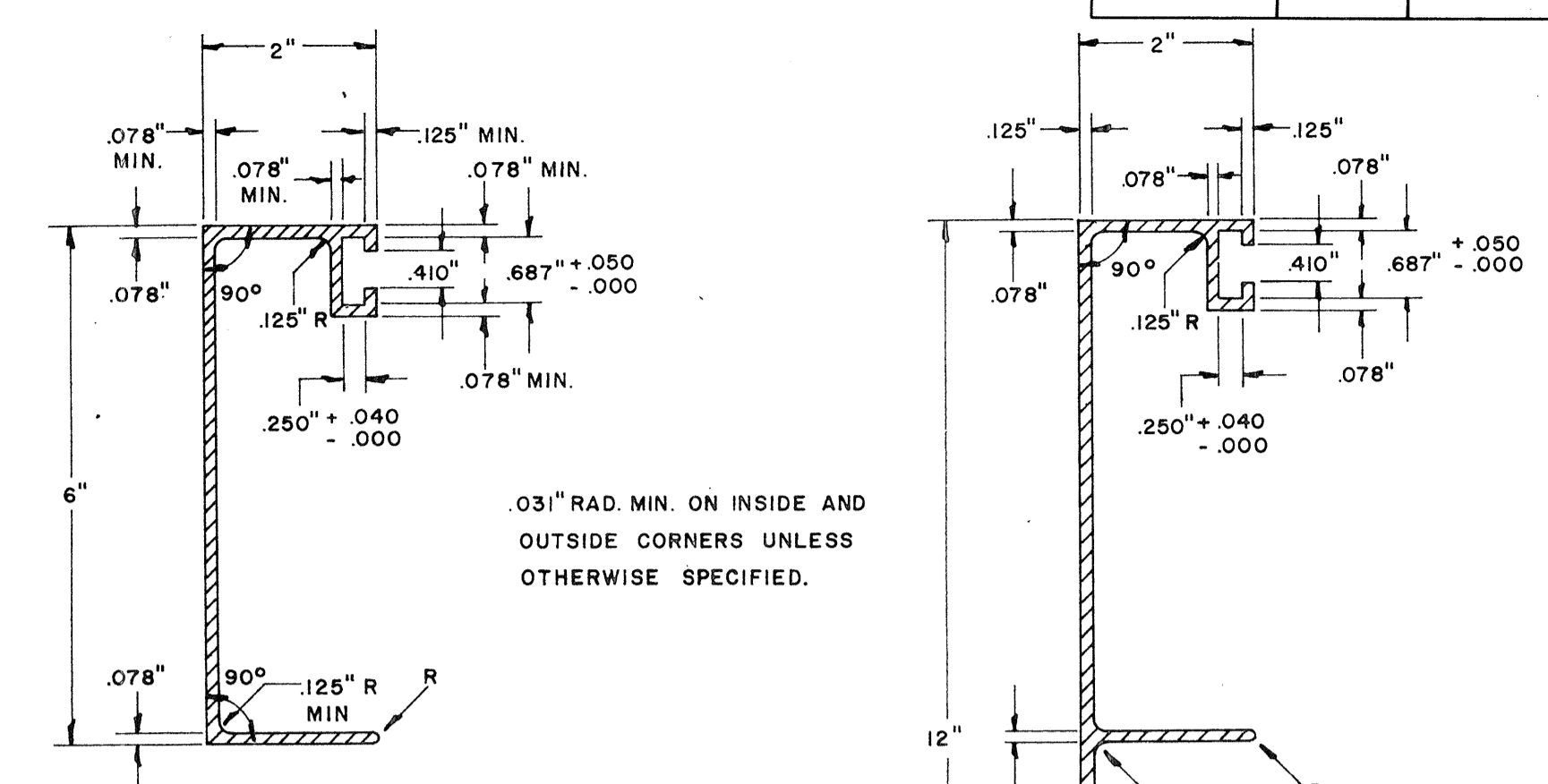
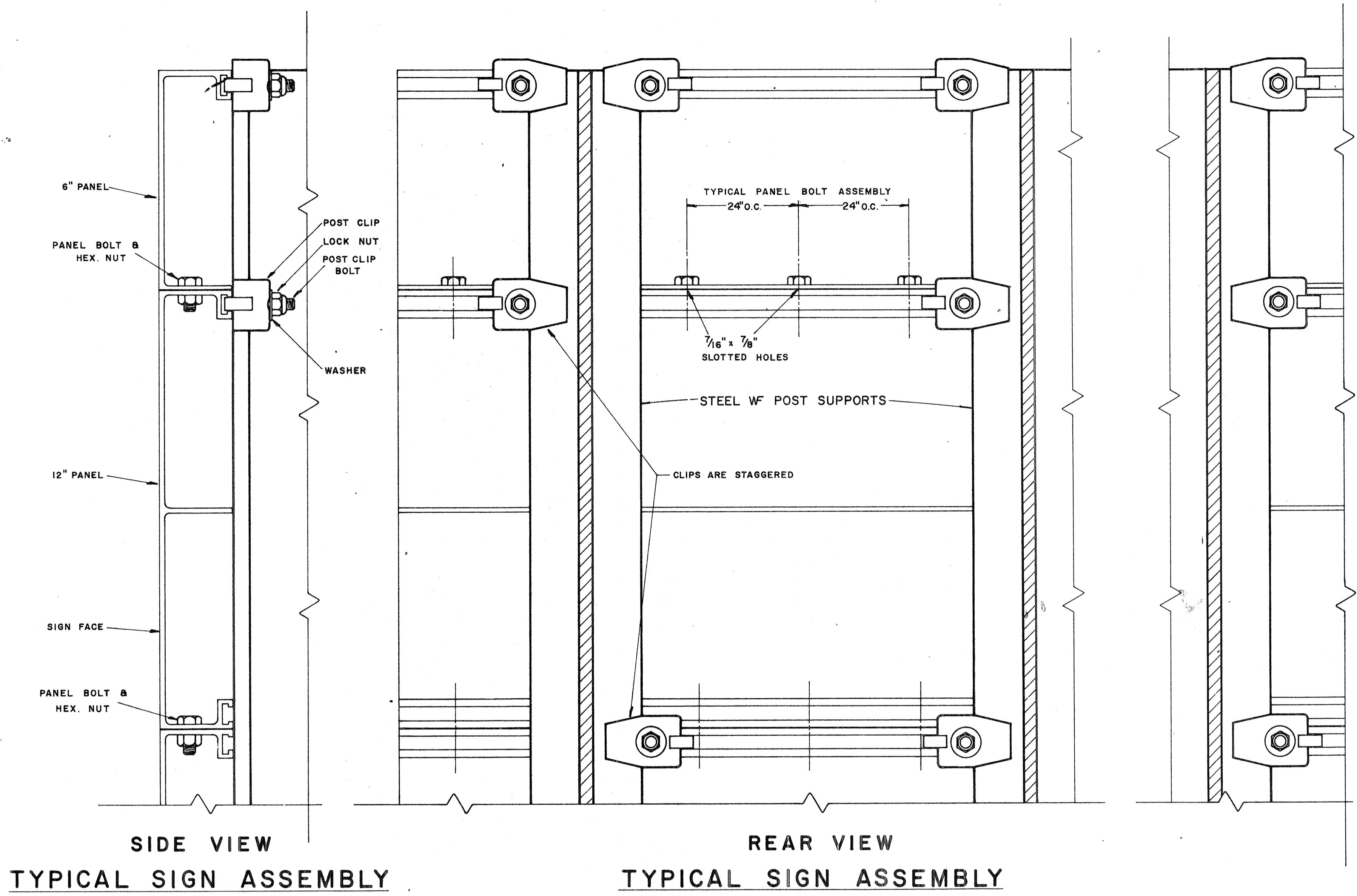
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
LAMINATED ALUMINUM
SIGN PANELS
(GROUND MOUNTED)
Scale: As Shown

SHEET No. 10 OF 24 SHEETS DT 206

SURVEY PLOTTED BY _____ DATE _____
 ORIGINAL PLAN _____
 DESIGNED BY _____
 NOTE BOOK _____
 QUANTITIES BY _____
 CHECKED BY _____

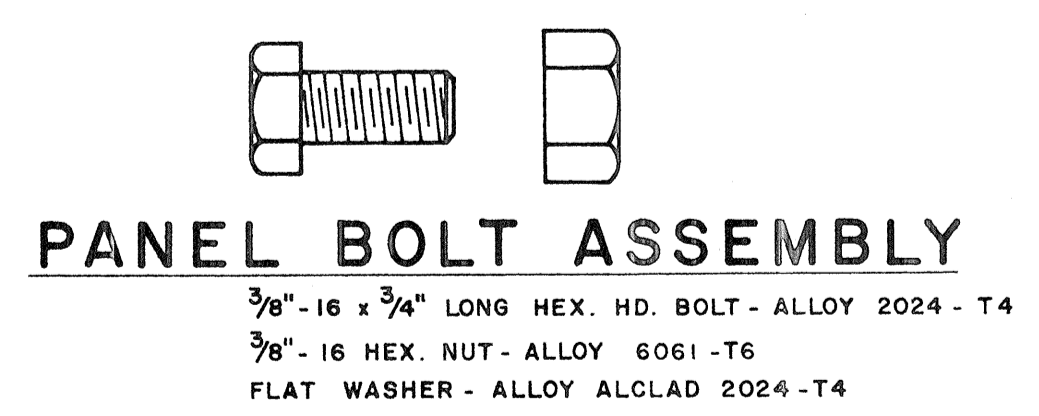
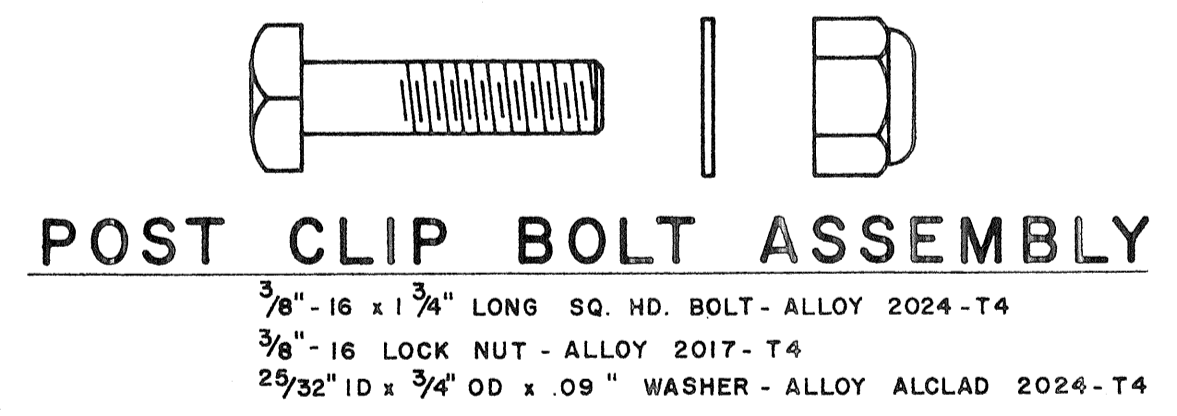
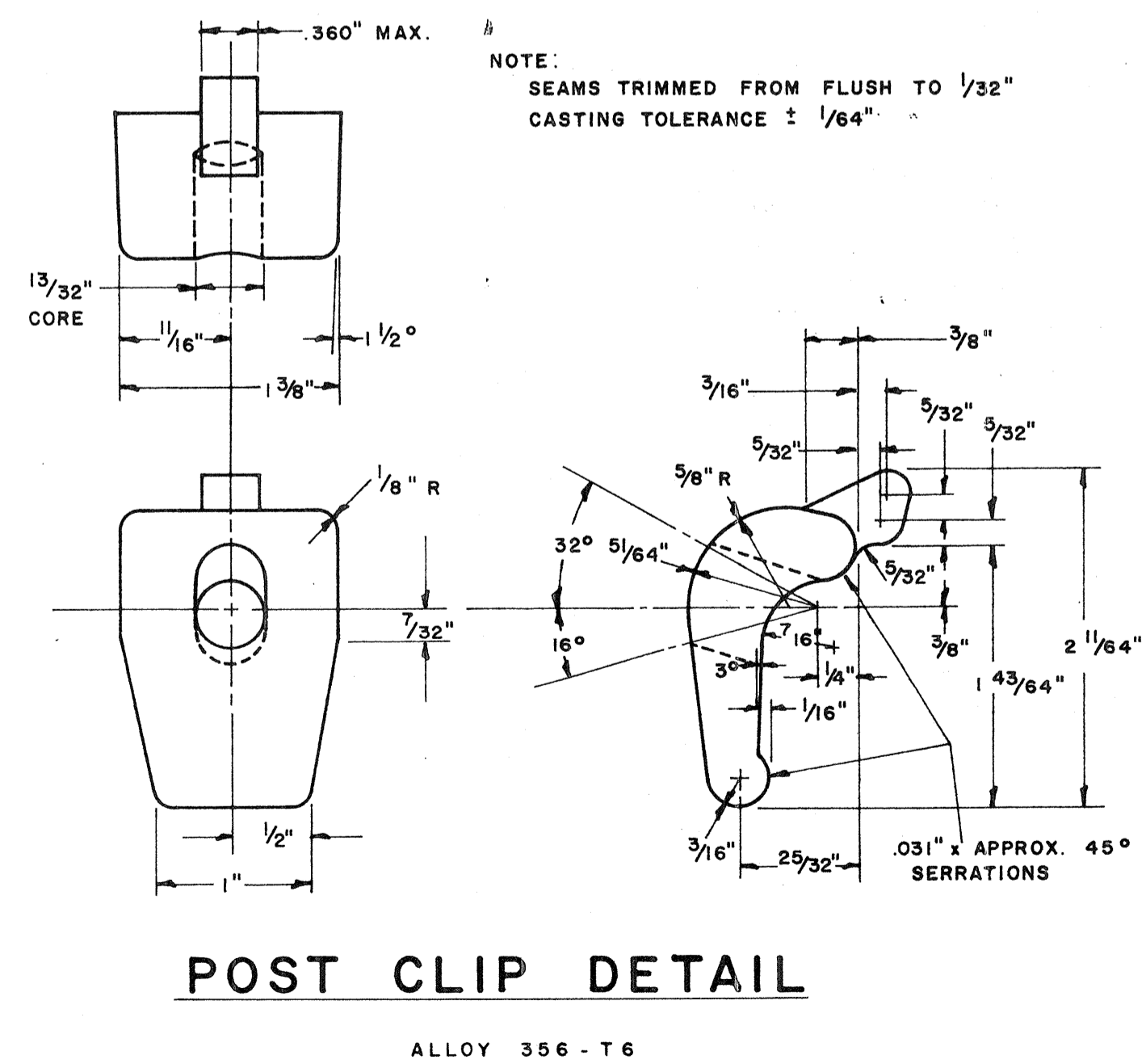
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	P-078-(21)	1980	102	234



SOLID EXTRUDED SIGN PANEL DETAILS

TYPICAL SIGN ASSEMBLY

TYPICAL SIGN ASSEMBLY



NOTE:
 Extruded Aluminum Panels to be used for
 Destination Signs with Reflective Sheeting Background

APPROVAL RECOMMENDED:
Eishi Tanaka 12/29/62
 TRAFFIC ENGINEER DATE

APPROVED:
[Signature] 12-20-59
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS

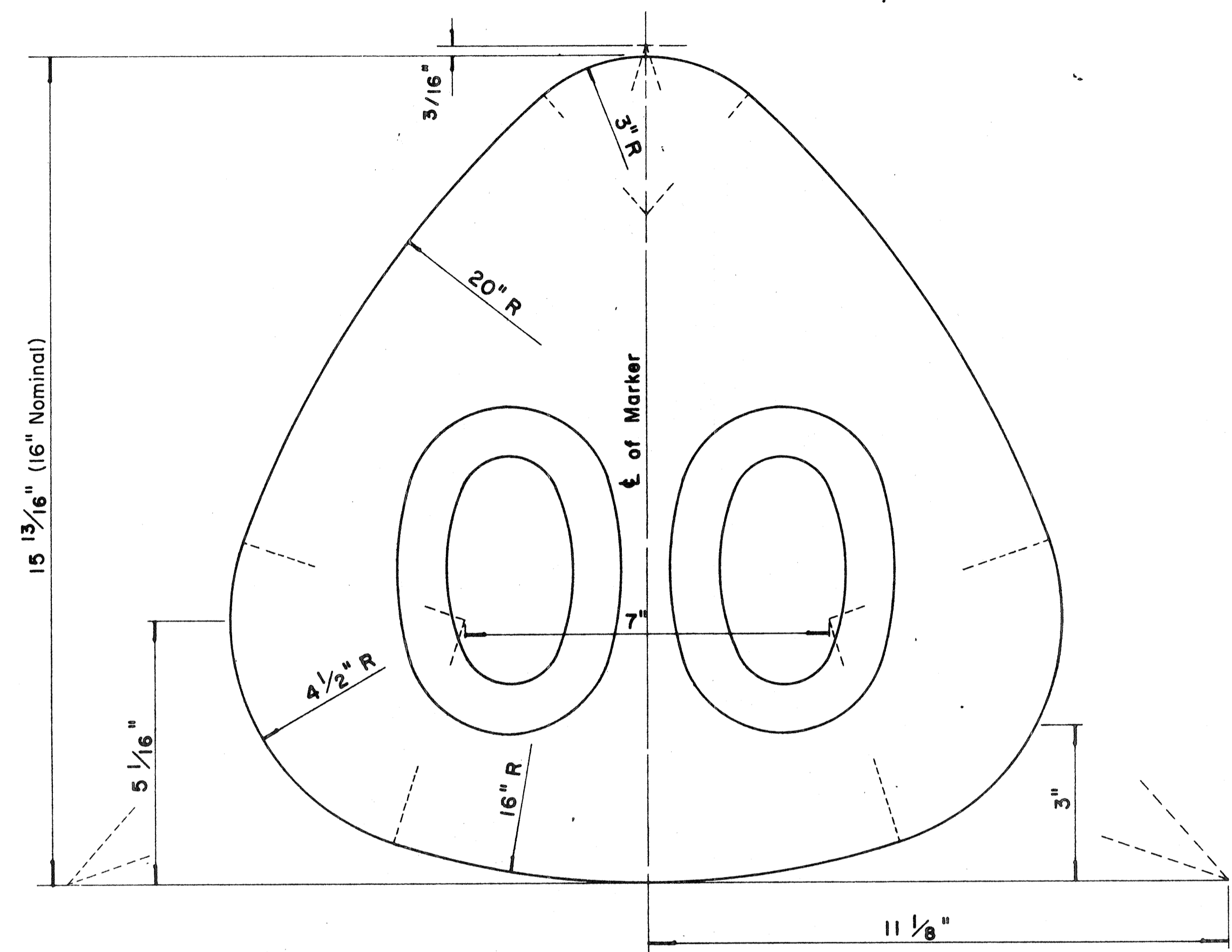
SOLID ALUMINUM
 EXTRUDED SIGN PANEL
 AND
 ACCESSORY DETAILS

SCALE:

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(21)	1980	103	234

MARKER SIZE	MULTIPLY DIMENSIONS BY	NUMERAL SIZE
		2 Digit - Series D 3 Digit - Series C
21"	1.3	8"
32"	2.0	12"
42"	2.63	16"



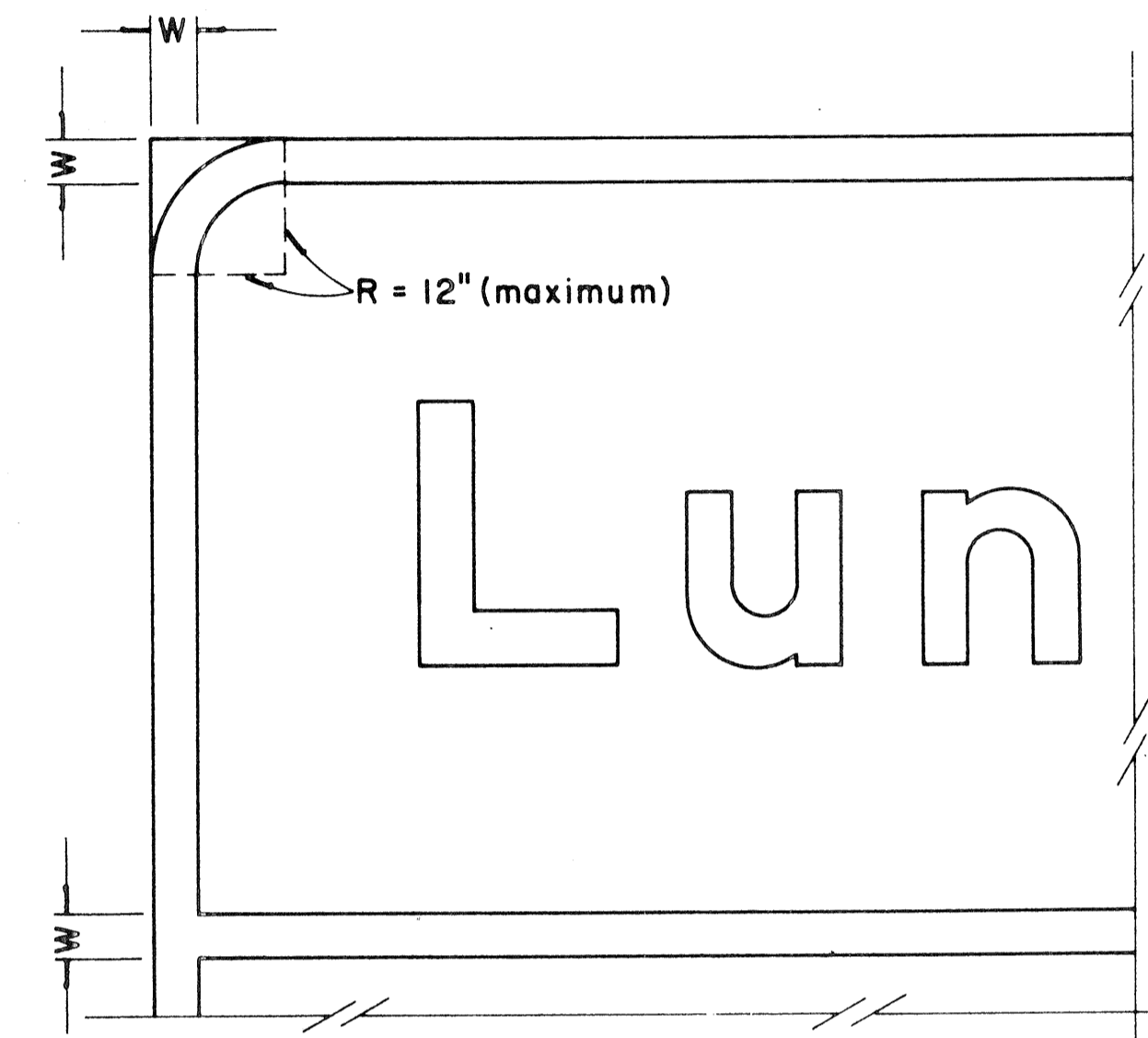
**STATE ROUTE MARKER
FOR GUIDE SIGNS**

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.

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 white reflectorized cut-outs.
3. All Guide signs shall have borders.

APPROVAL RECOMMENDED:

Etsuko Tanaka 4/11/72
TRAFFIC ENGINEER DATE

APPROVED:

Richard Z. Galinski 4/12/72
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 209 Approved 12-30-69	H.T.	4/12/72
2	Revised Notes and Schedules	H.T.	7-14-70

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

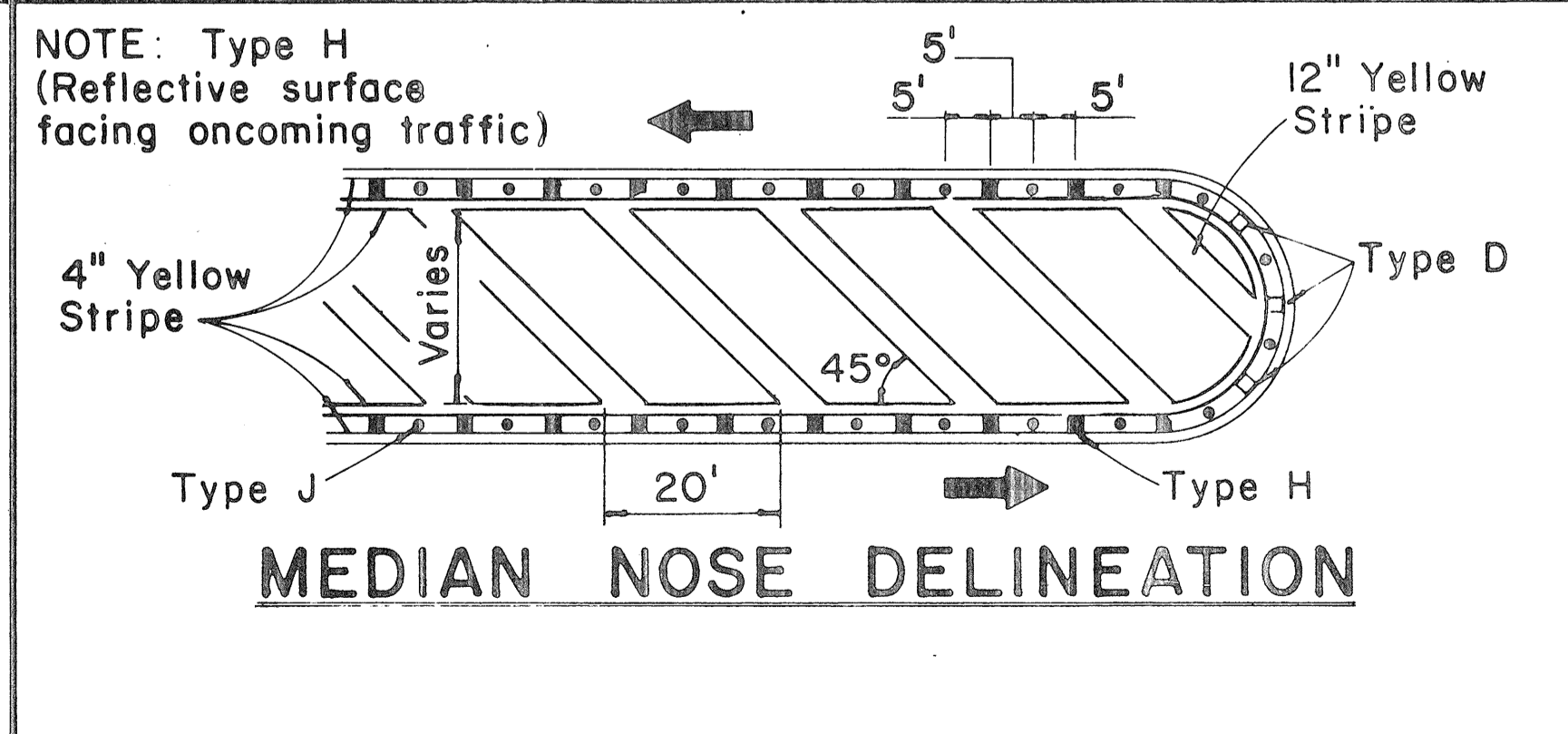
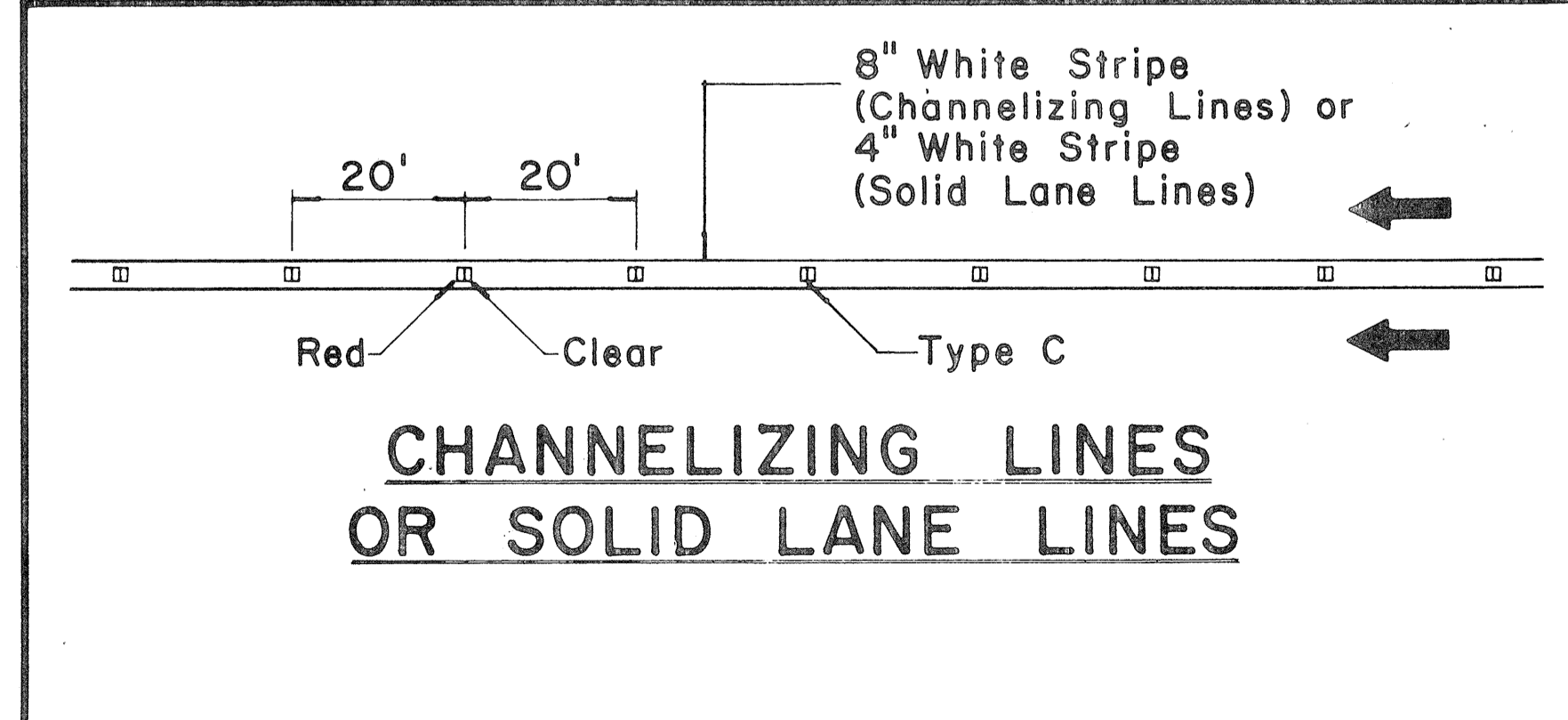
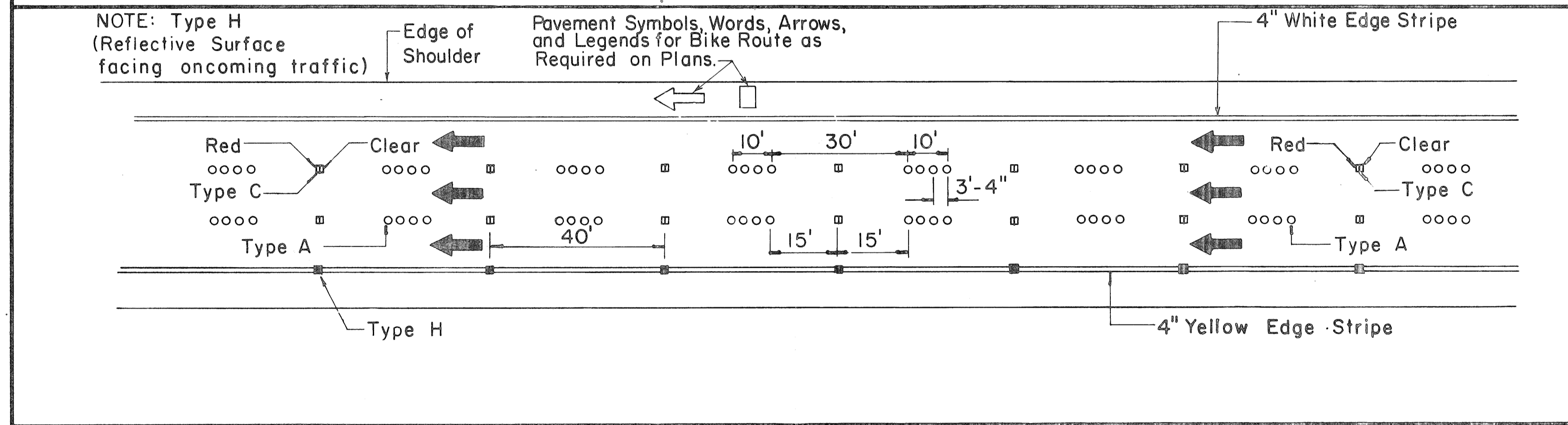
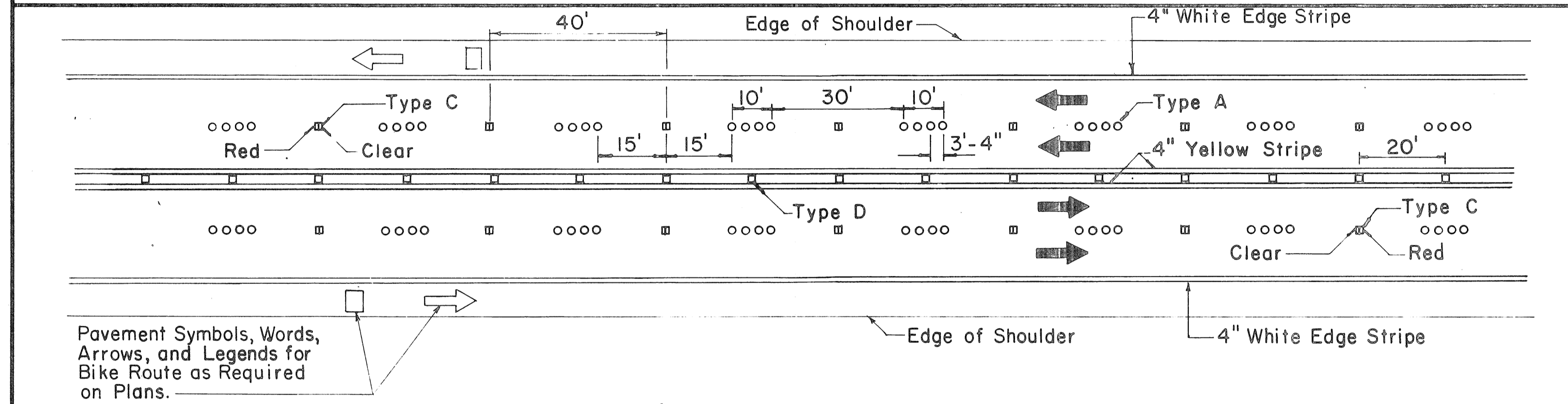
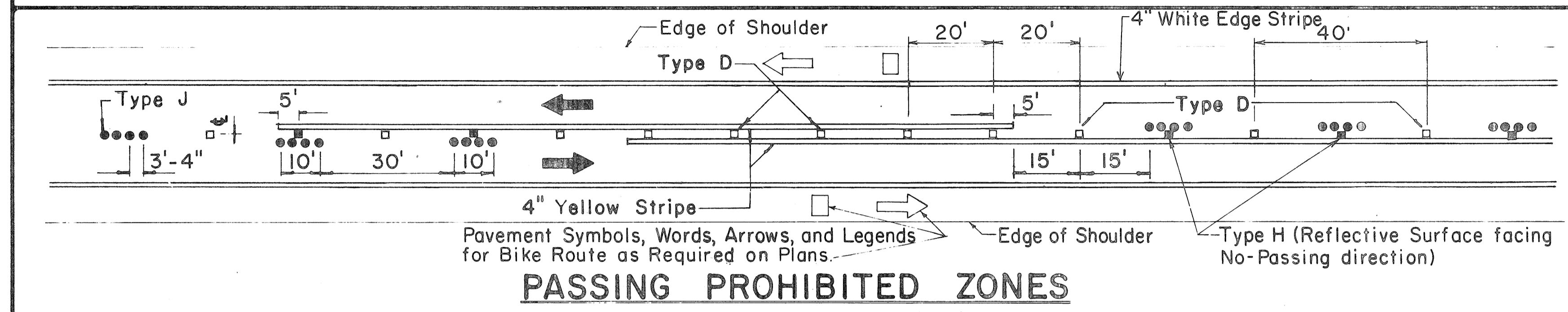
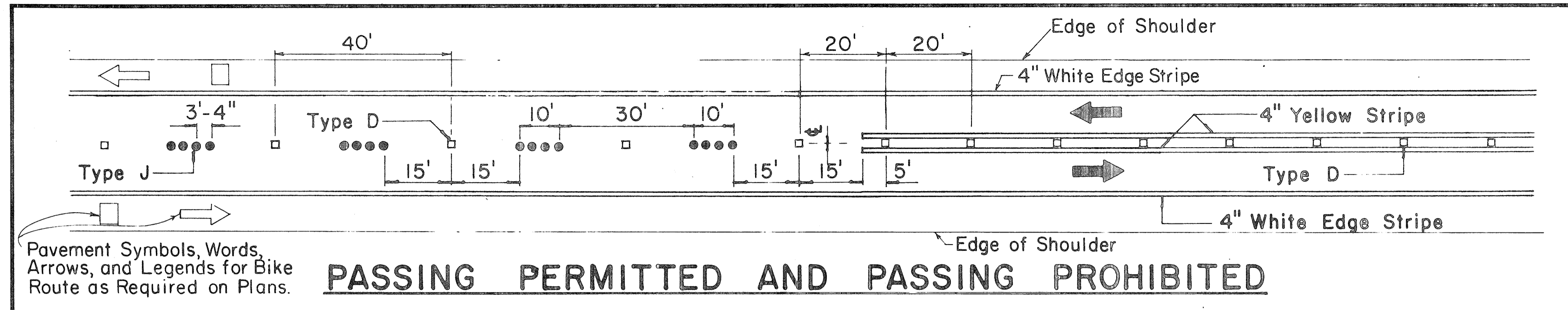
**STATE ROUTE MARKER
AND BORDER DETAIL
FOR GUIDE SIGNS**

Scale: As Shown

SHEET No. 21 OF 44 SHEETS DT 209

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NO. _____	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	0070-101	1980	104	234

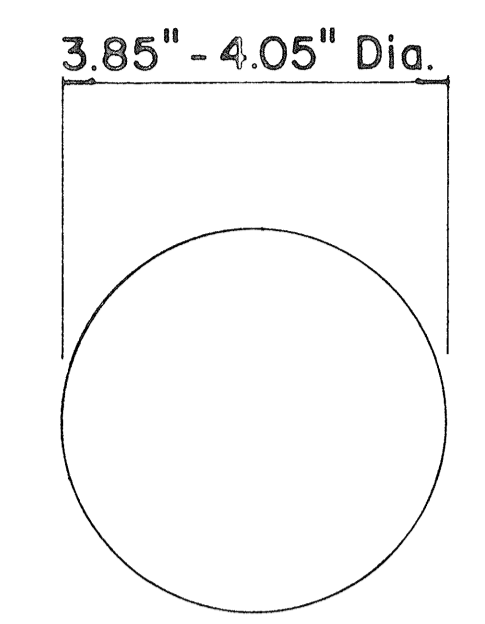


TWO - LANE

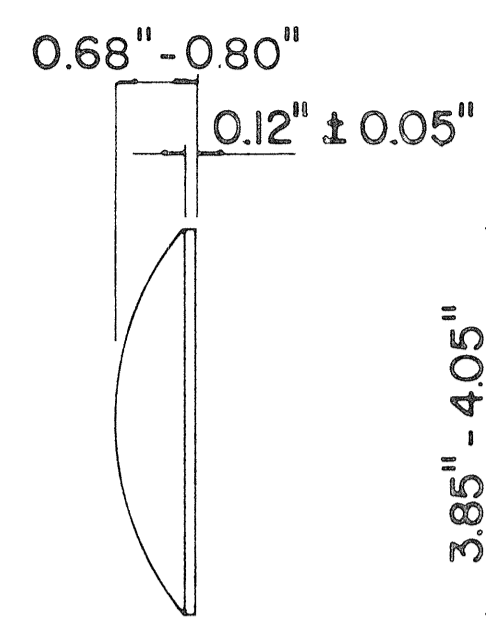
MULTI - LANE

DIVIDED HIGHWAY AND FREEWAY

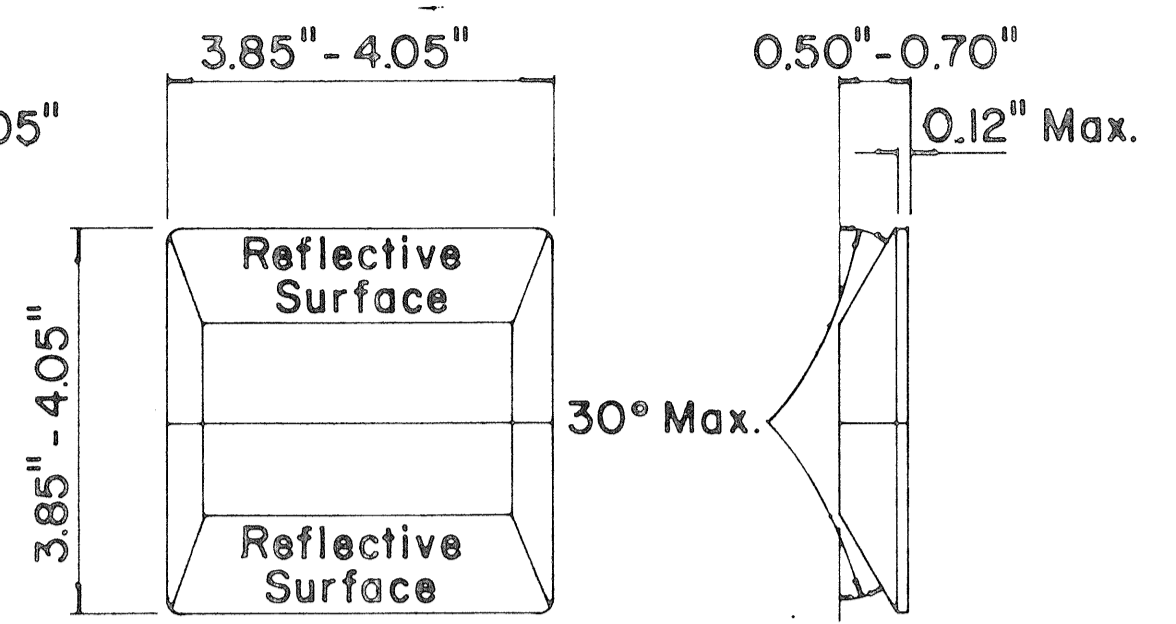
MISCELLANEOUS



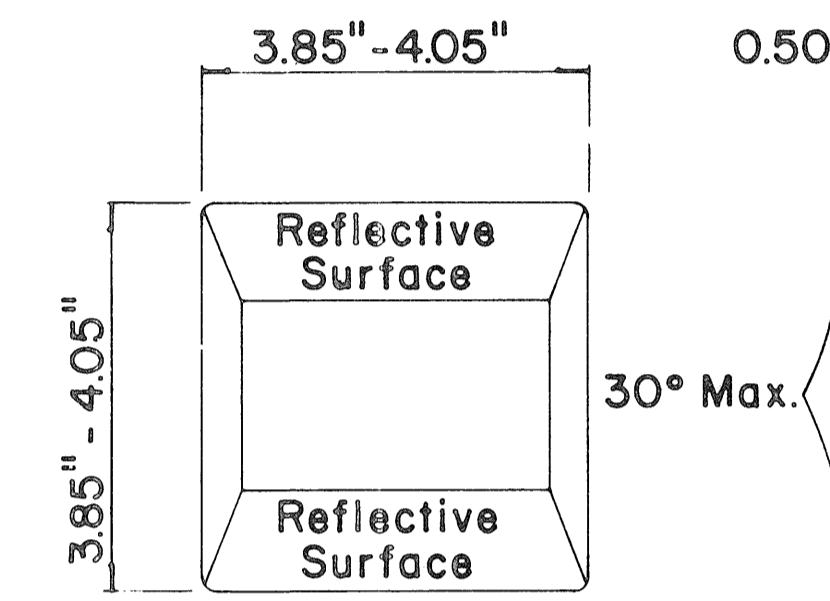
TYPE A
NON-REFLECTIVE WHITE MARKER



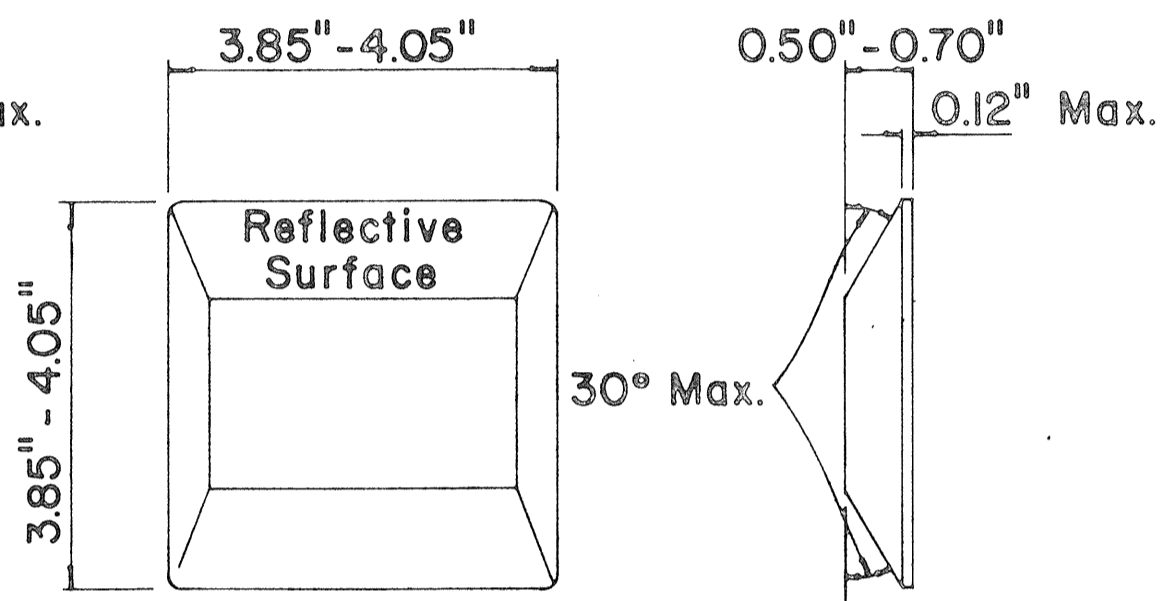
TYPE J
NON-REFLECTIVE YELLOW MARKER



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:
Eiichi Tanaka 7/21/78
TRAFFIC ENGINEER DATE

APPROVED:
Harbour S. Zakechis 7/24/78
ASSISTANT CHIEF, ENGINEERING DATE

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

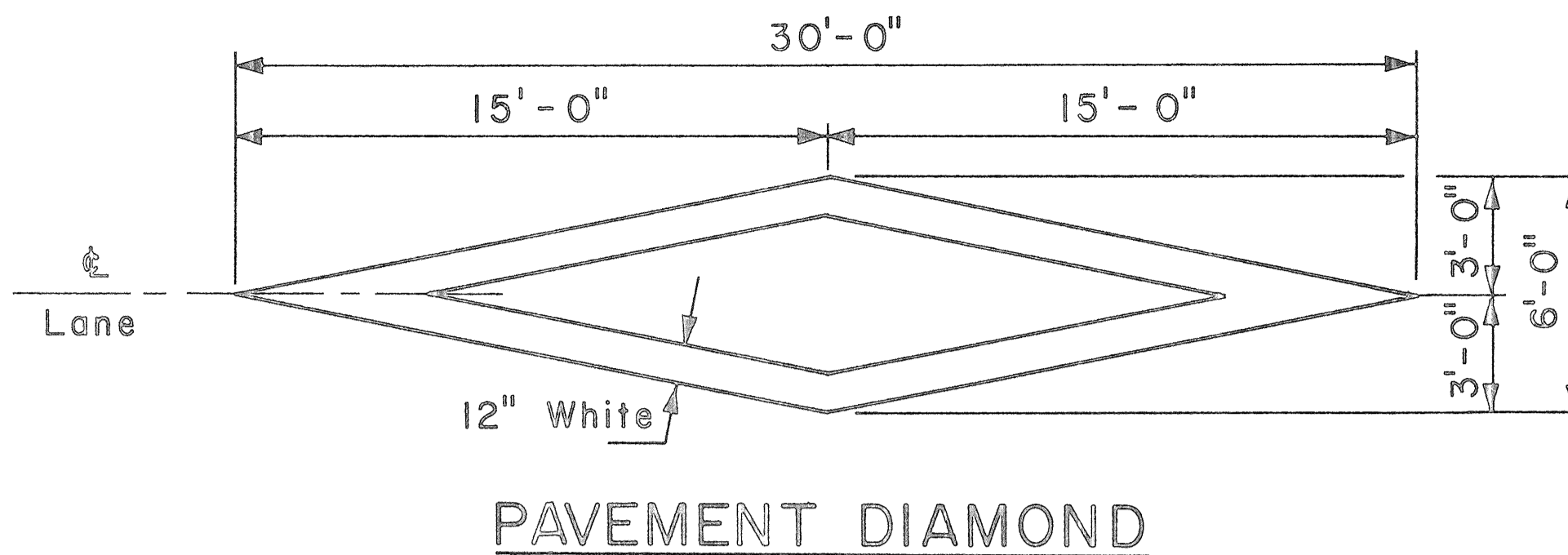
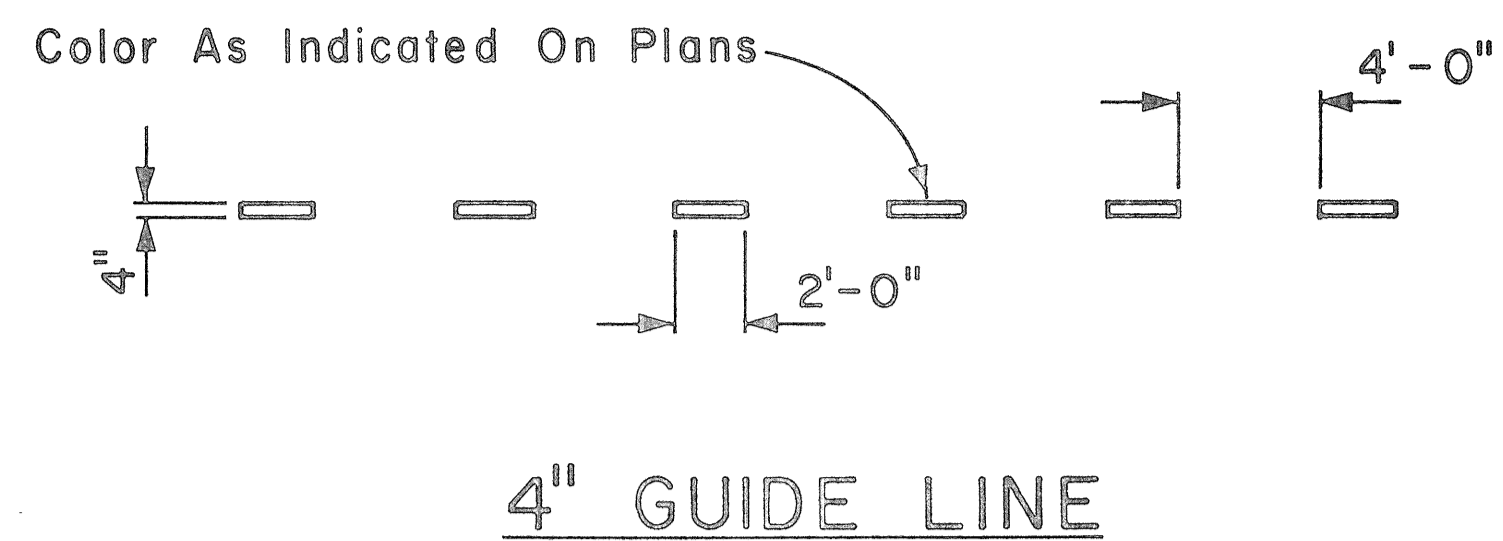
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
RAISED PAVEMENT MARKERS
AND STRIPING

Not to Scale July 1978
SHEET No. 104 OF 234 SHEETS DT 300

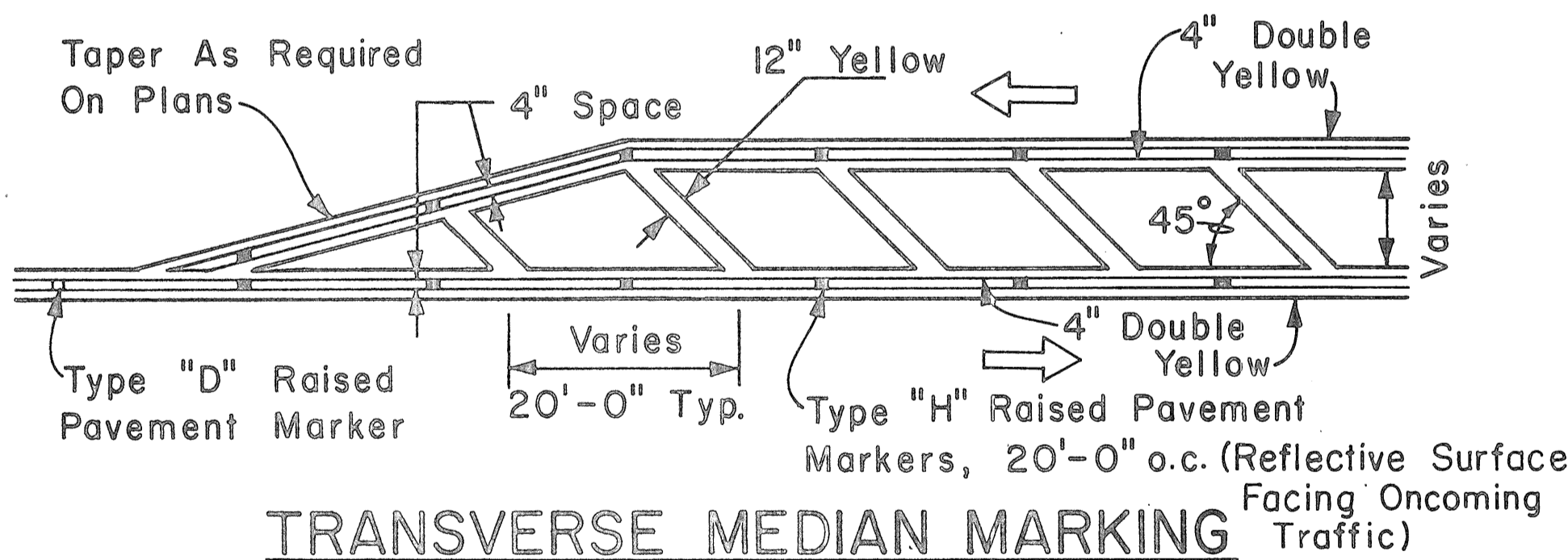
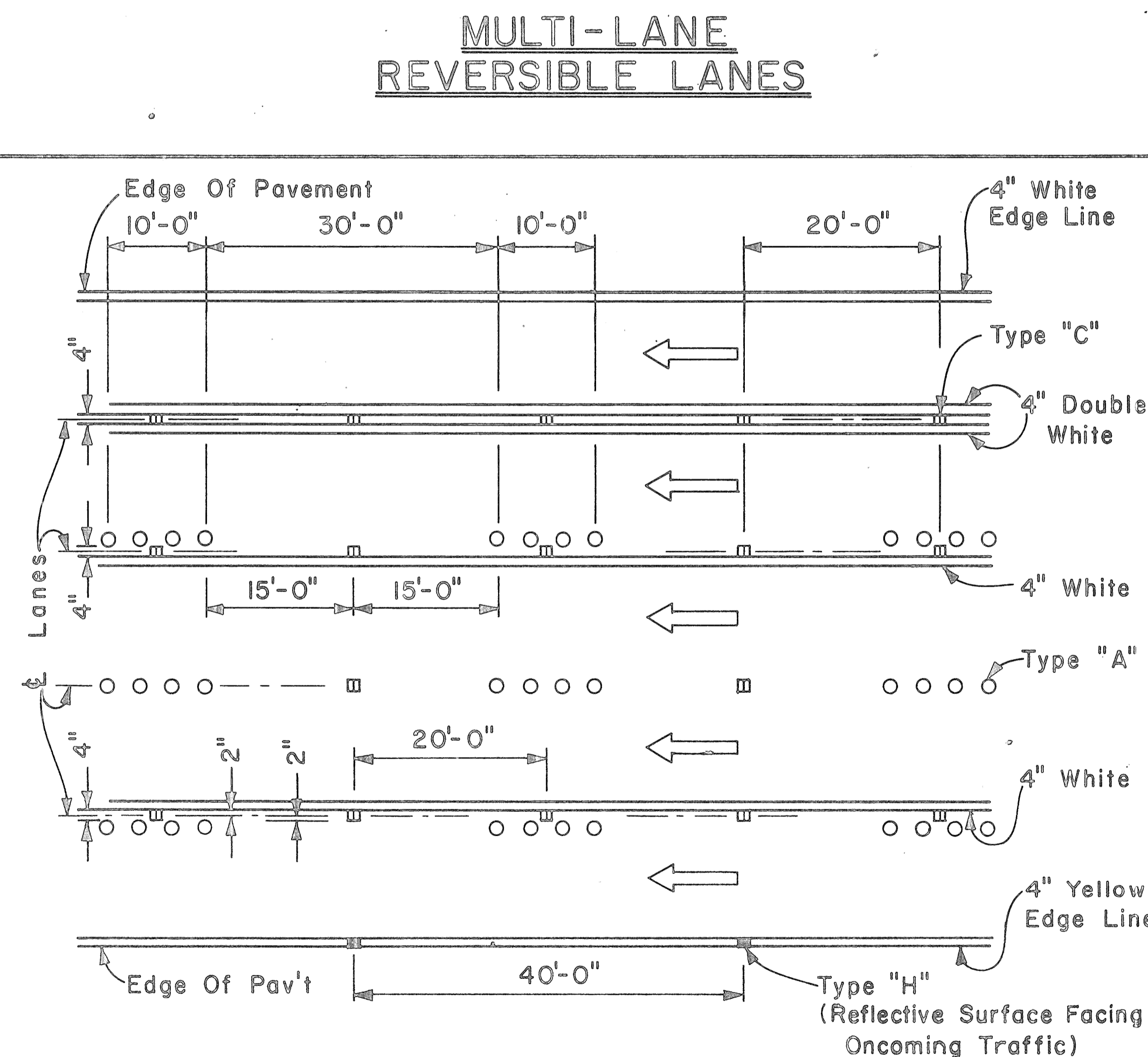
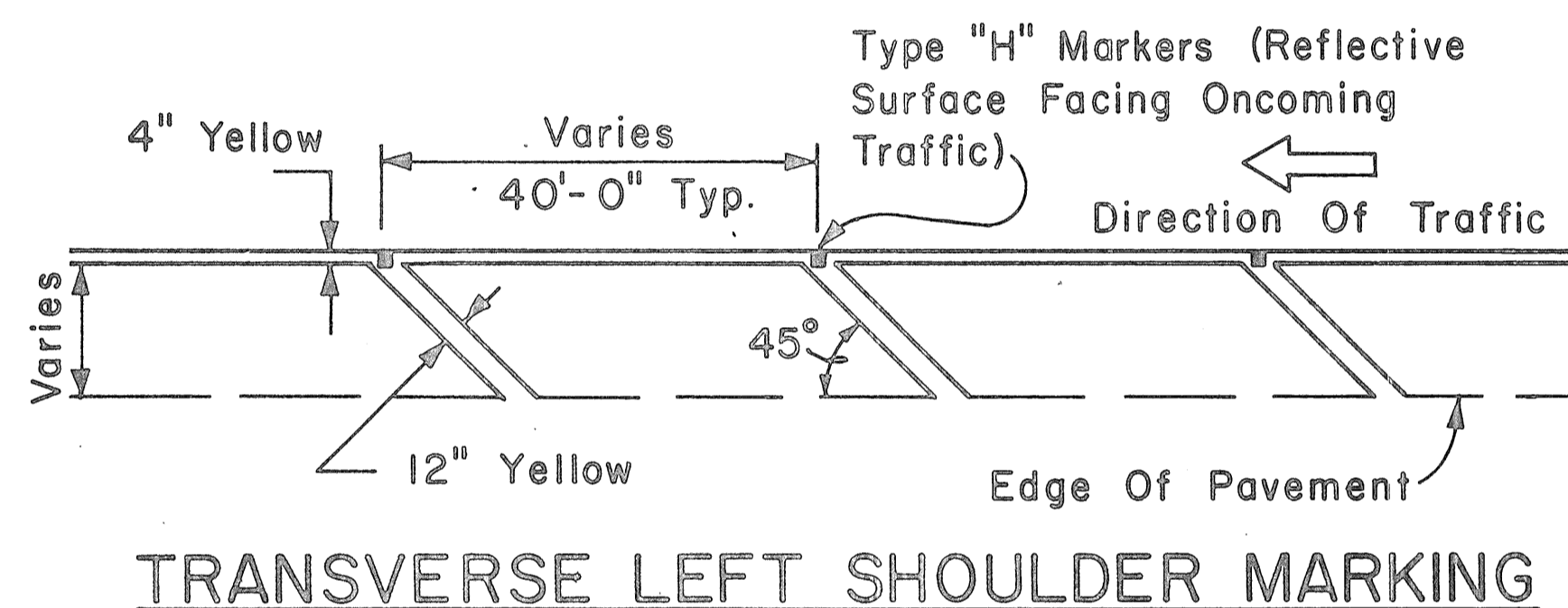
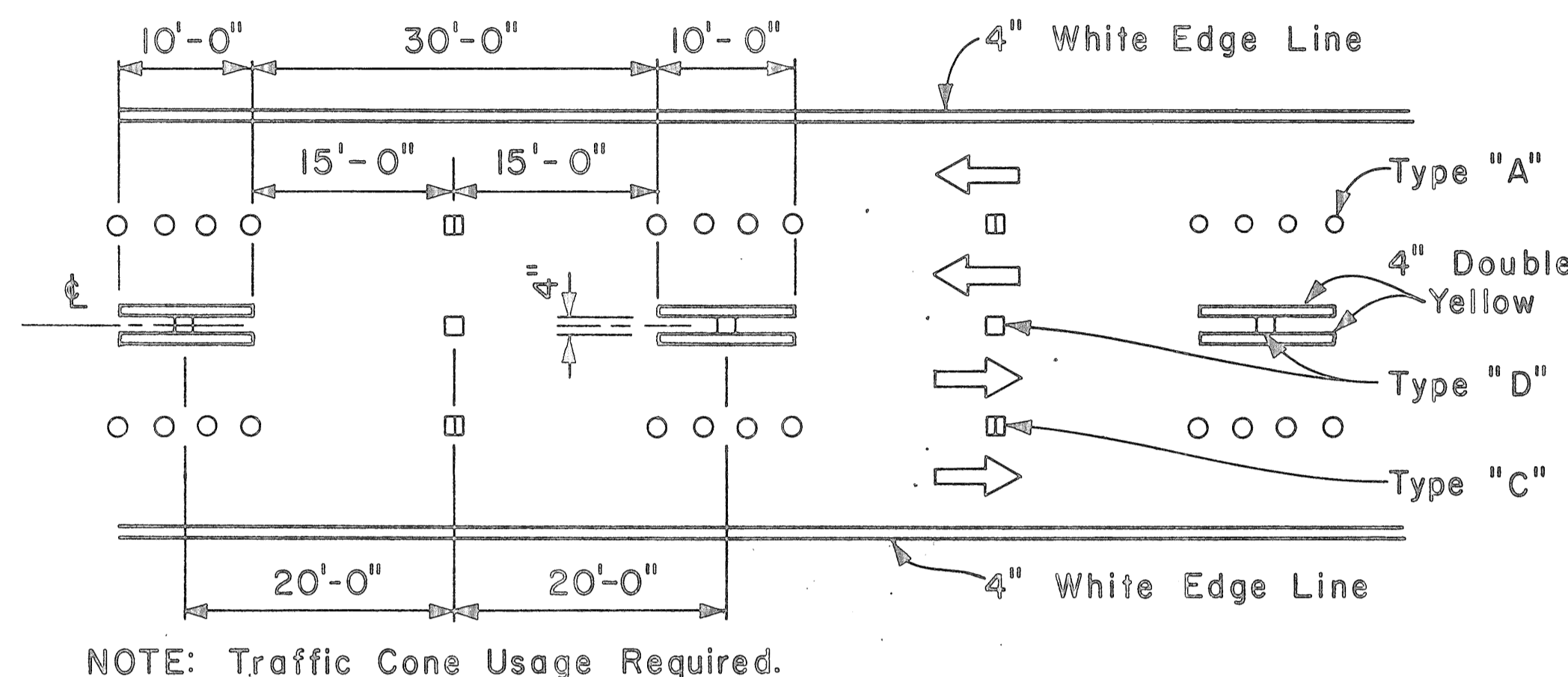
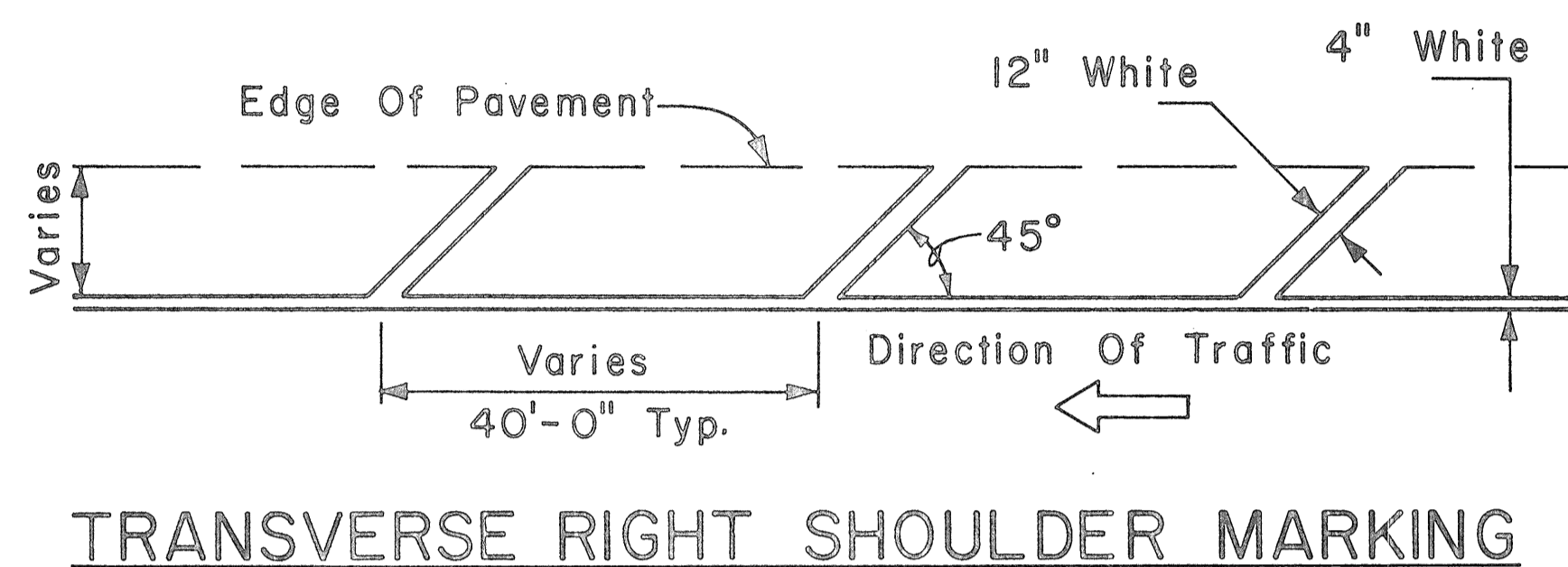
DATE	_____
SURVEY PLOTTED BY	_____
DESIGNED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
No.	_____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	8-078-1(21)	1980	105	234



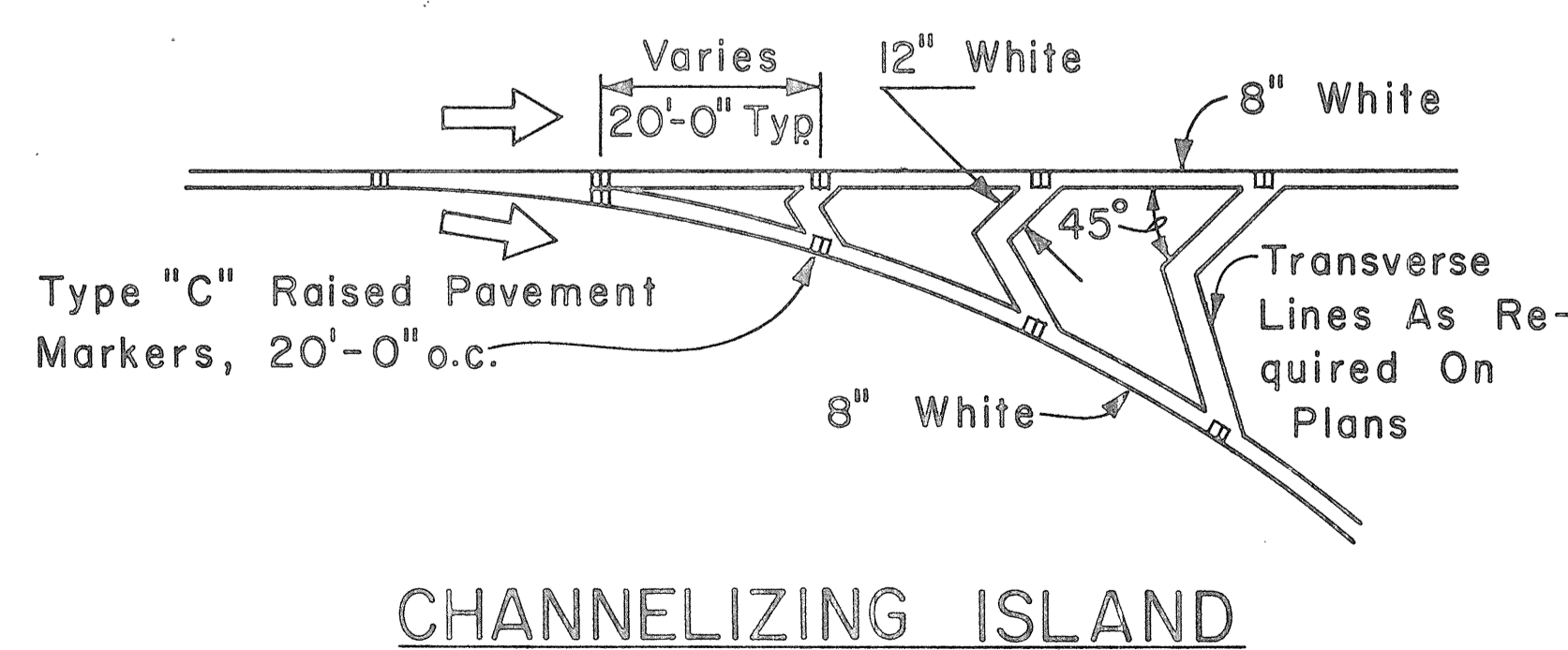
GENERAL NOTES:

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.



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

APPROVED:
Arthur S. Sakai 5/3/78
 ASSISTANT CHIEF, ENGINEERING DATE



NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS

MISCELLANEOUS
 PAVEMENT MARKINGS

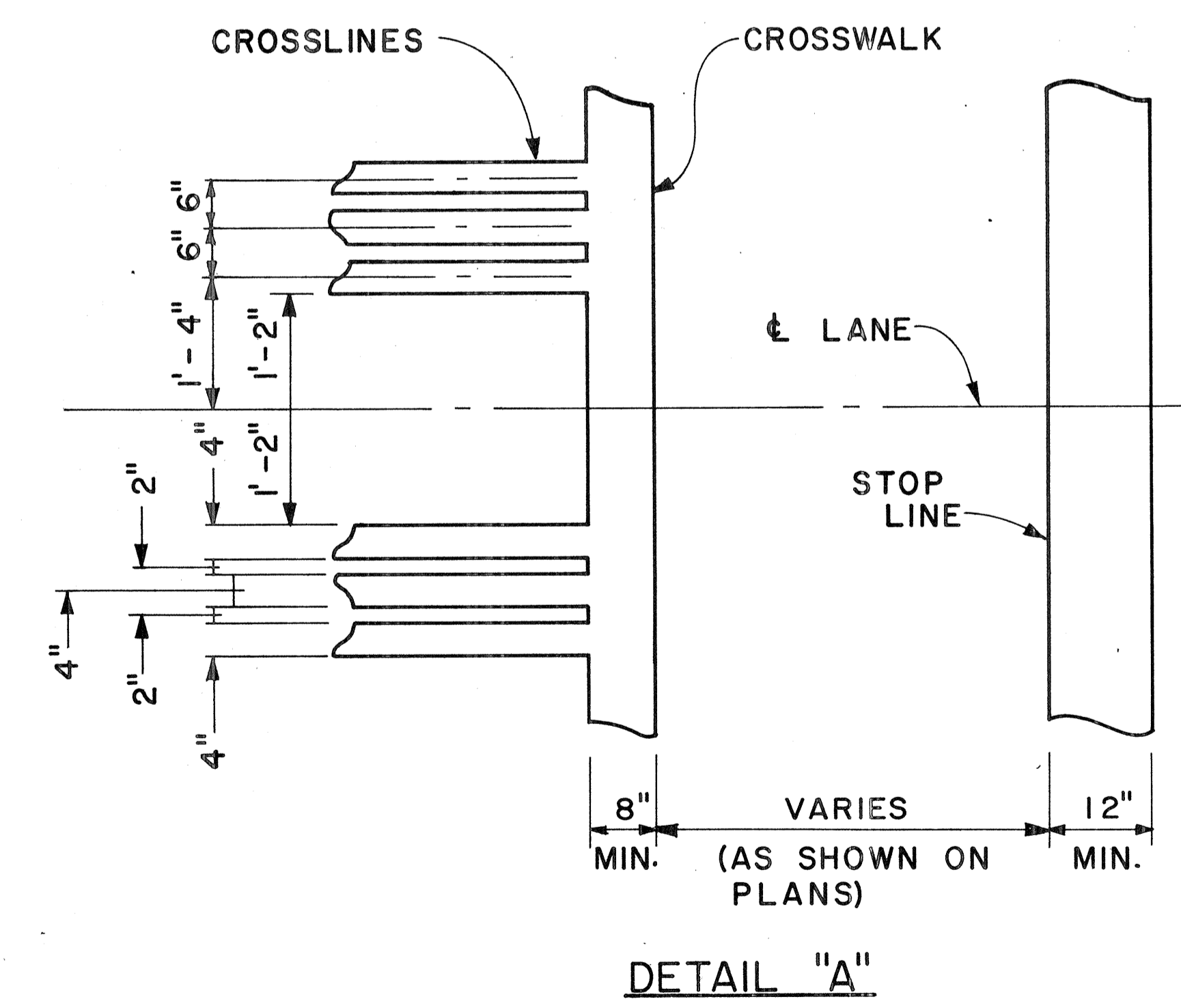
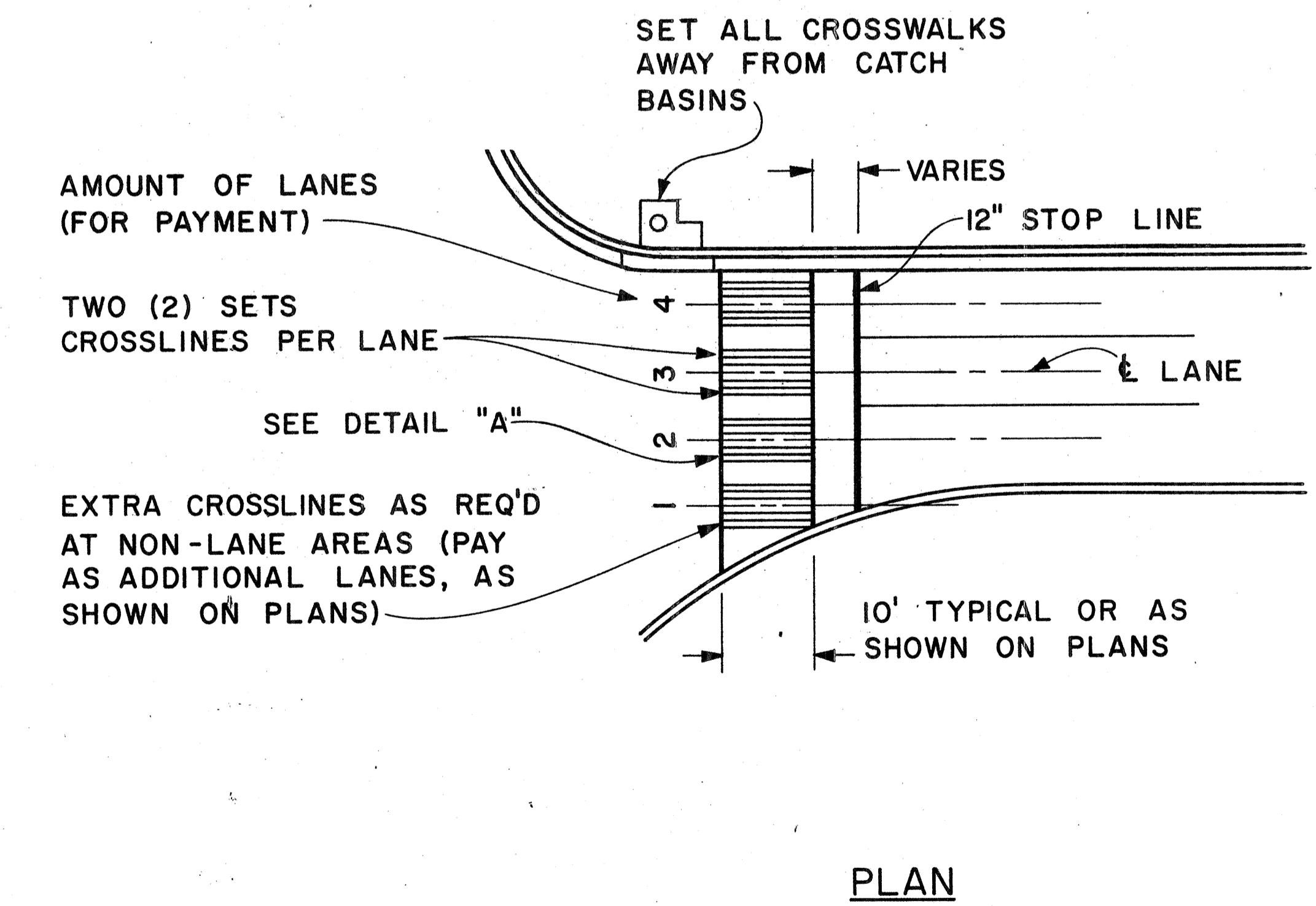
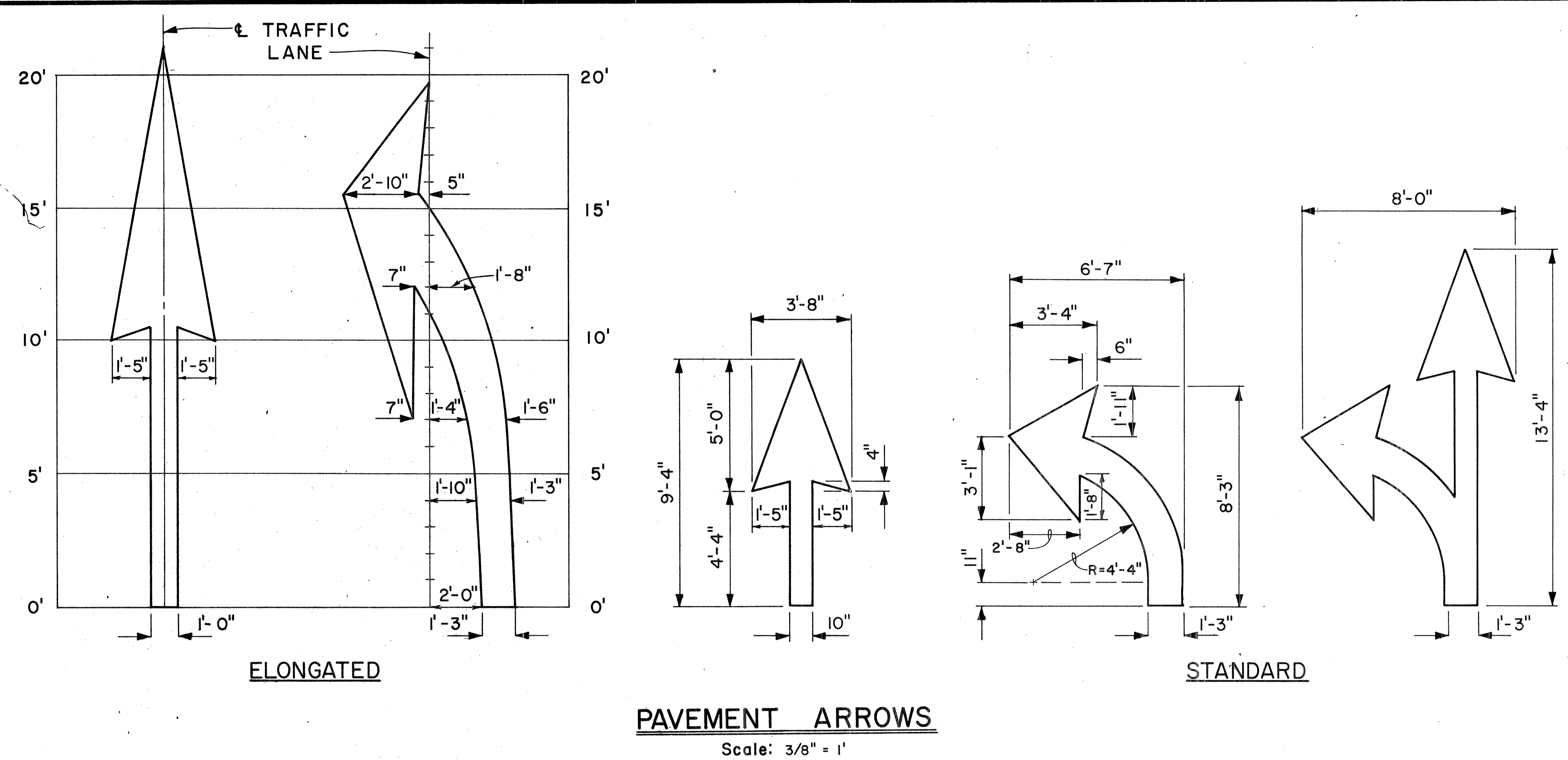
Scale: Not to Scale Date: April, 1978
 SHEET NO. 105 OF 23 SHEETS DT 302

DATE: _____
 SURVEY PLOTTED BY: _____
 ORIGINAL PLAN: _____
 DRAWN BY: _____
 TRACED BY: _____
 QUANTITIES BY: _____
 NOTE BOOK: _____
 CHECKED BY: _____
 No. _____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-078-1(21)	1980	106	234

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.



CROSSWALK & STOP LINE
Scale: Not to Scale

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

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

APPROVED:
Harold S. Zaleski 5/13/78
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

MISCELLANEOUS
PAVEMENT MARKINGS

Scale: As Shown Date: March, 1978
SHEET NO. 106 OF 24 SHEETS DT 306