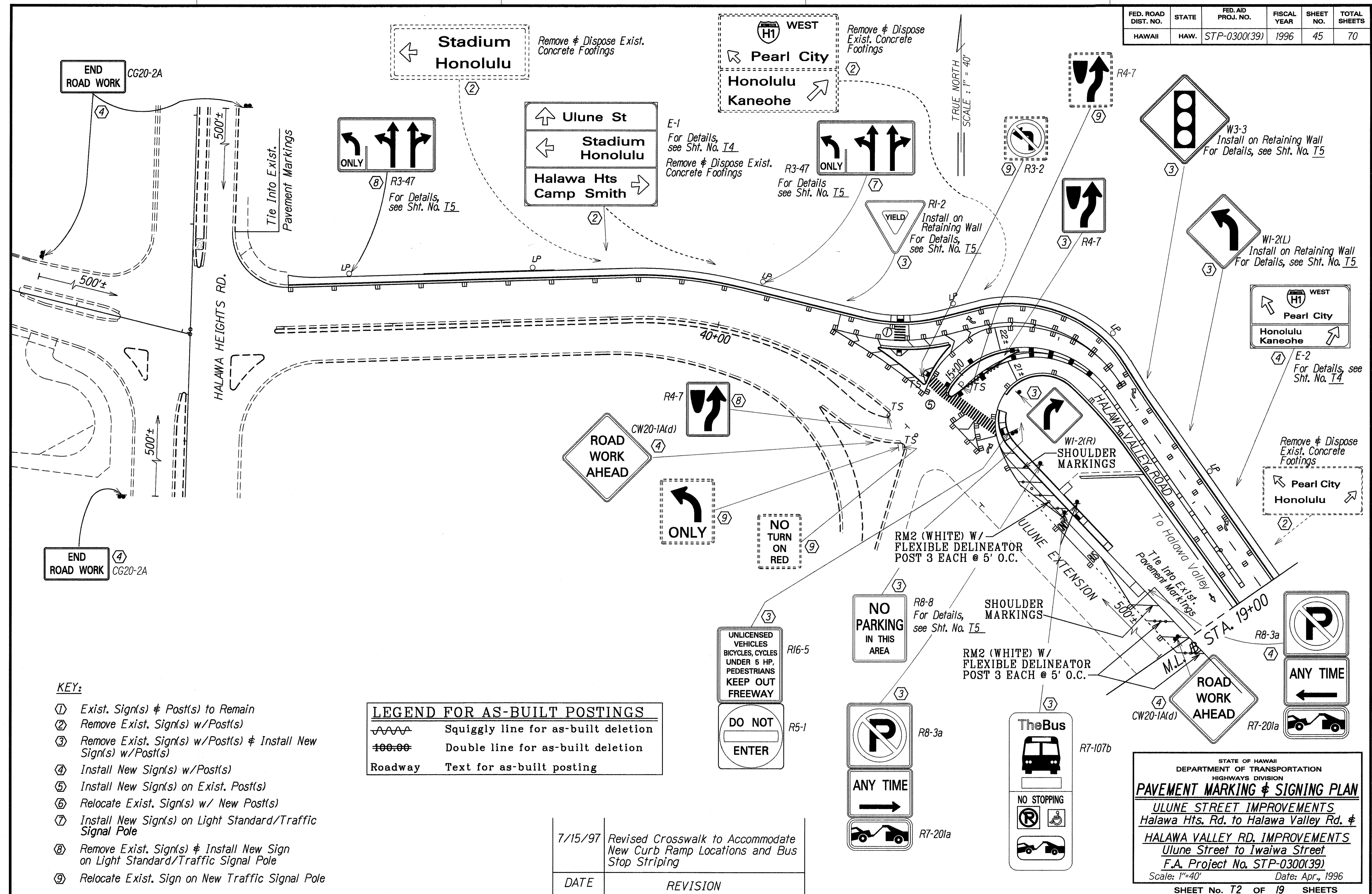


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(39)	1996	45	70



- KEY:**
- ① Exist. Sign(s) & Post(s) to Remain
 - ② Remove Exist. Sign(s) w/Post(s)
 - ③ Remove Exist. Sign(s) w/Post(s) & Install New Sign(s) w/Post(s)
 - ④ Install New Sign(s) w/Post(s)
 - ⑤ Install New Sign(s) on Exist. Post(s)
 - ⑥ Relocate Exist. Sign(s) w/ New Post(s)
 - ⑦ Install New Sign(s) on Light Standard/Traffic Signal Pole
 - ⑧ Remove Exist. Sign(s) & Install New Sign on Light Standard/Traffic Signal Pole
 - ⑨ Relocate Exist. Sign on New Traffic Signal Pole

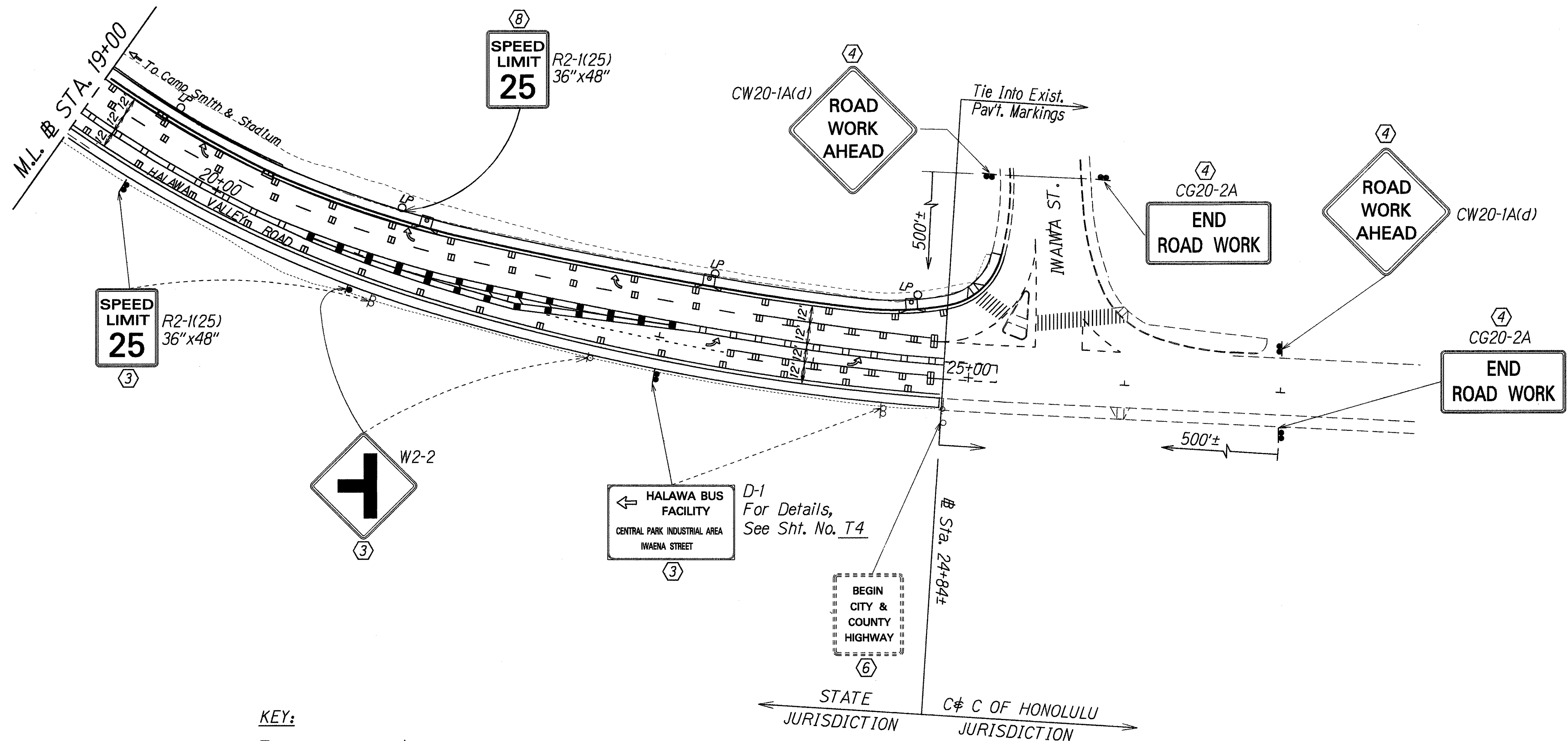
LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

DATE	REVISION
7/15/97	Revised Crosswalk to Accommodate New Curb Ramp Locations and Bus Stop Striping

SURVEY PLOTTED BY: DATE: 11/03/95
 DRAWN BY: MJB
 CHECKED BY: C. ABB
 ORIGINAL PLAN: 11/03/95
 NO. OF SHEETS: 70
 SHEET NO.: 45
 PROJECT NO.: STP-0300(39)

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
PAVEMENT MARKING & SIGNING PLAN
 ULUNE STREET IMPROVEMENTS
 Halawa Hts. Rd. to Halawa Valley Rd. &
 HALAWA VALLEY RD. IMPROVEMENTS
 Ulune Street to Iwaiwa Street
 F.A. Project No. STP-0300(39)
 Scale: 1"=40' Date: Apr., 1996
 SHEET No. T2 OF 19 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(39)	1996	46	70



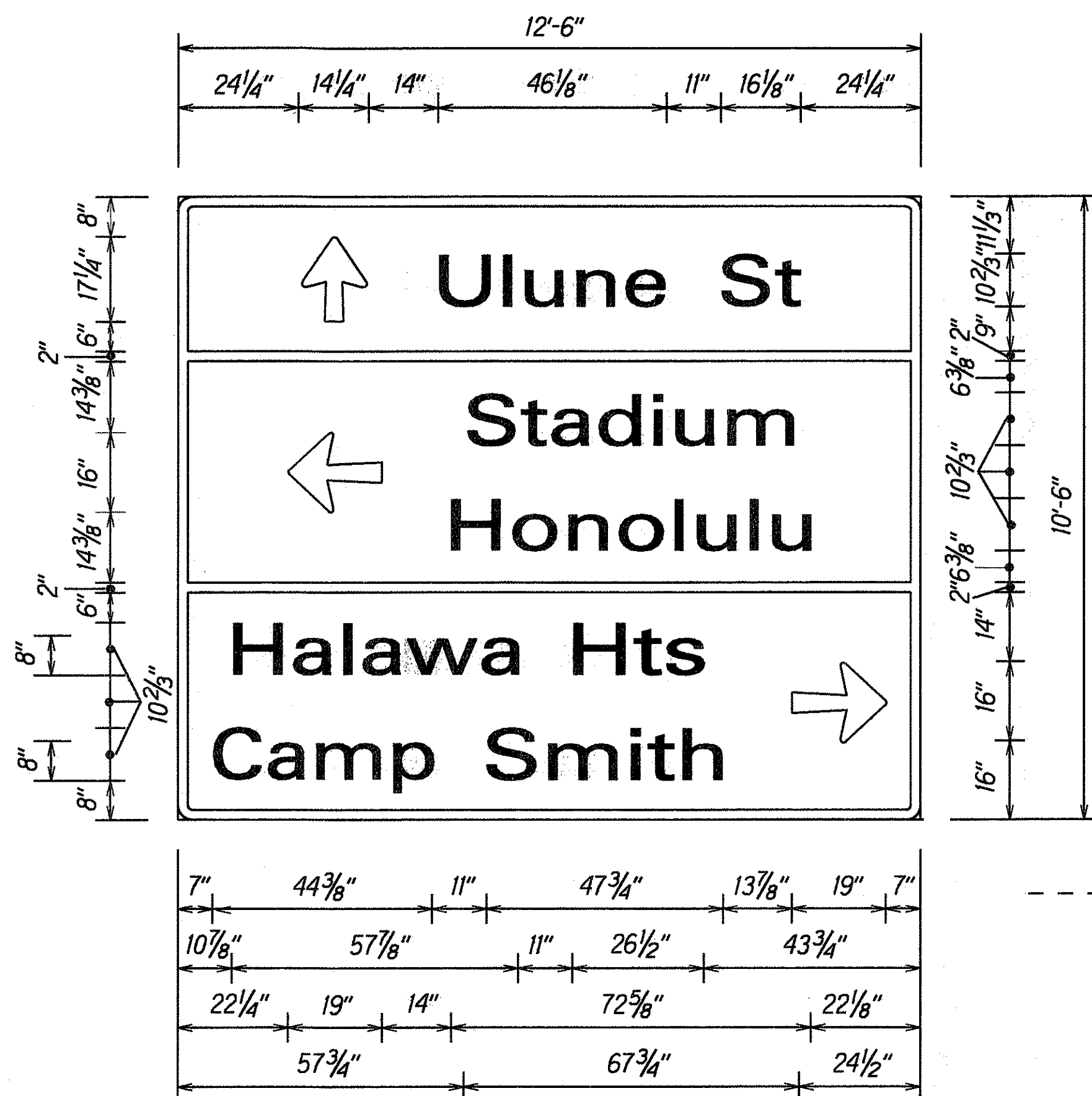
- KEY:**
- ① Exist. Sign(s) & Post(s) to Remain
 - ② Remove Exist. Sign(s) w/Post(s)
 - ③ Remove Exist. Sign(s) w/Post(s) & Install New Sign(s) w/Post(s)
 - ④ Install New Sign(s) w/Post(s)
 - ⑤ Install New Signs on Exist. Post(s)
 - ⑥ Relocate Exist. Sign(s) w/ New Post(s)
 - ⑦ Install New Sign(s) on Light Standard/Traffic Signal Pole
 - ⑧ Remove Exist. Sign(s) & Install New Sign on Light Standard/Traffic Signal Pole
 - ⑨ Relocate Exist. Sign on New Traffic Signal Pole

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

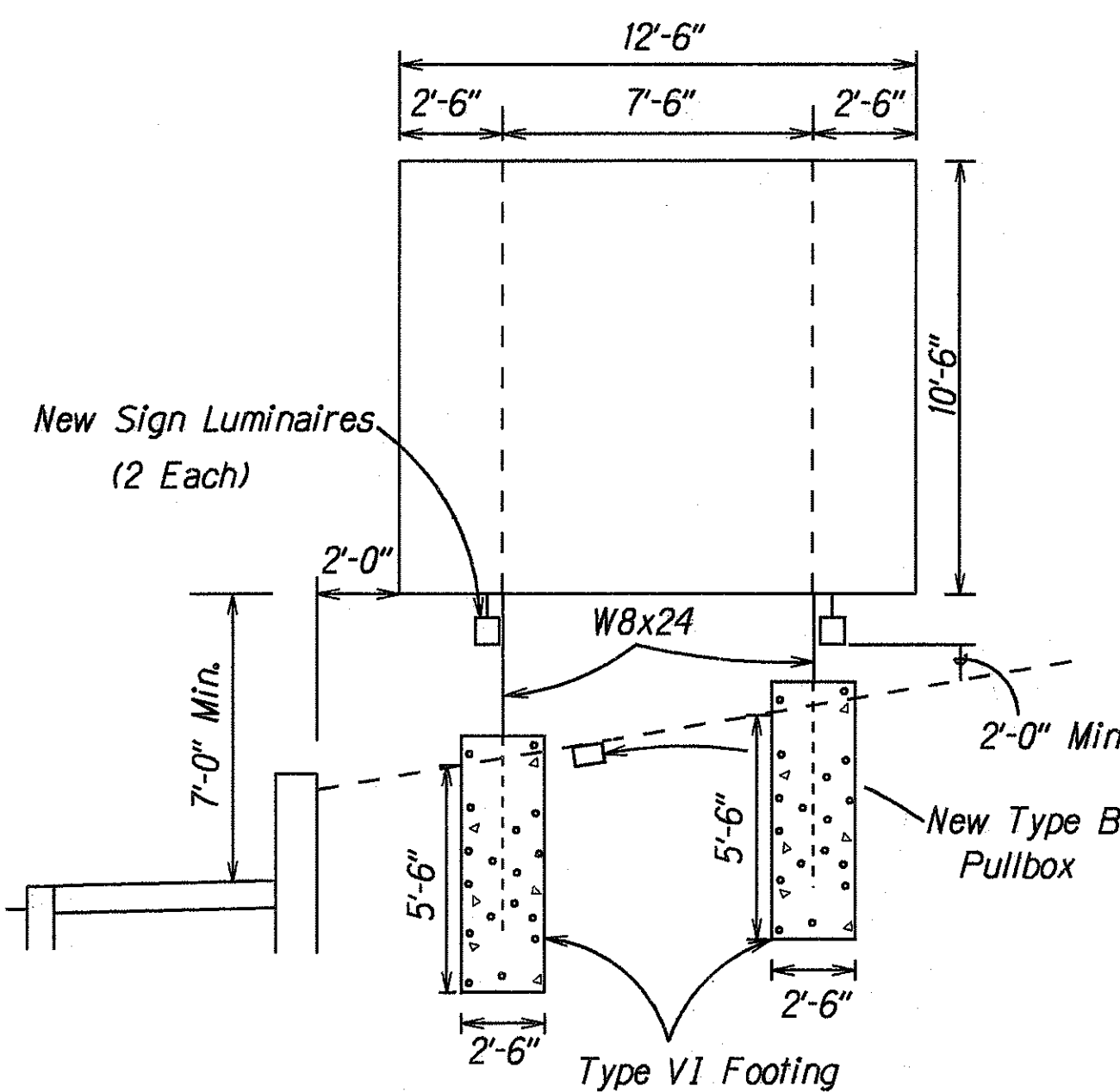
ORIGINAL PLAN	DATE
DESIGNED BY: C. Alb	11/03/95
DRAWN BY: J. Hyl	
CHECKED BY:	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PAVEMENT MARKING & SIGNING PLAN
ULUNE STREET IMPROVEMENTS
Halawa Hts. Rd. to Halawa Valley Rd. &
HALAWA VALLEY RD. IMPROVEMENTS
Ulune Street to Iwaiwa Street
F.A. Project No. STP-0300(39)
Scale: 1"=40' Date: Apr., 1996
SHEET No. T3 OF 19 SHEETS

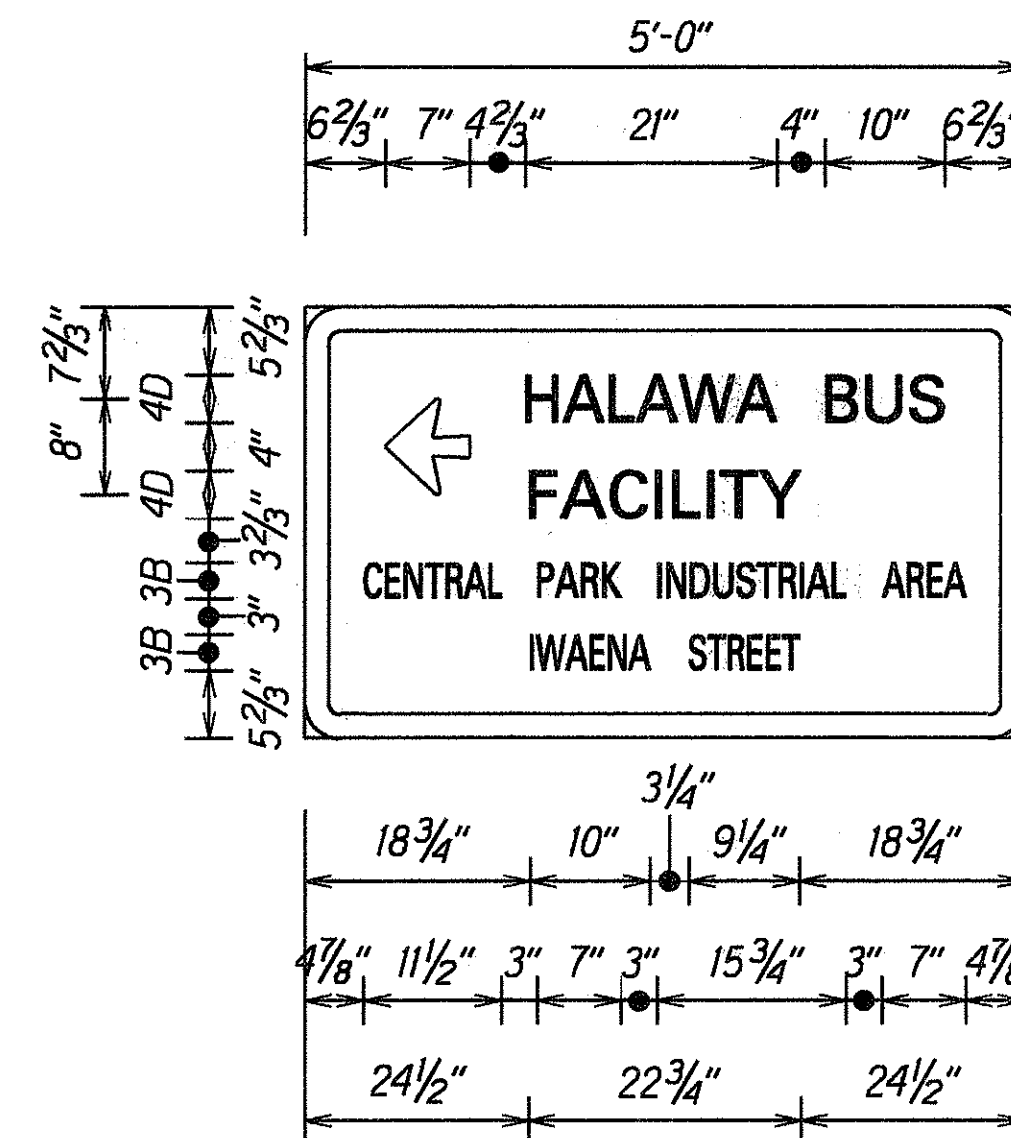
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(39)	1996	47	70



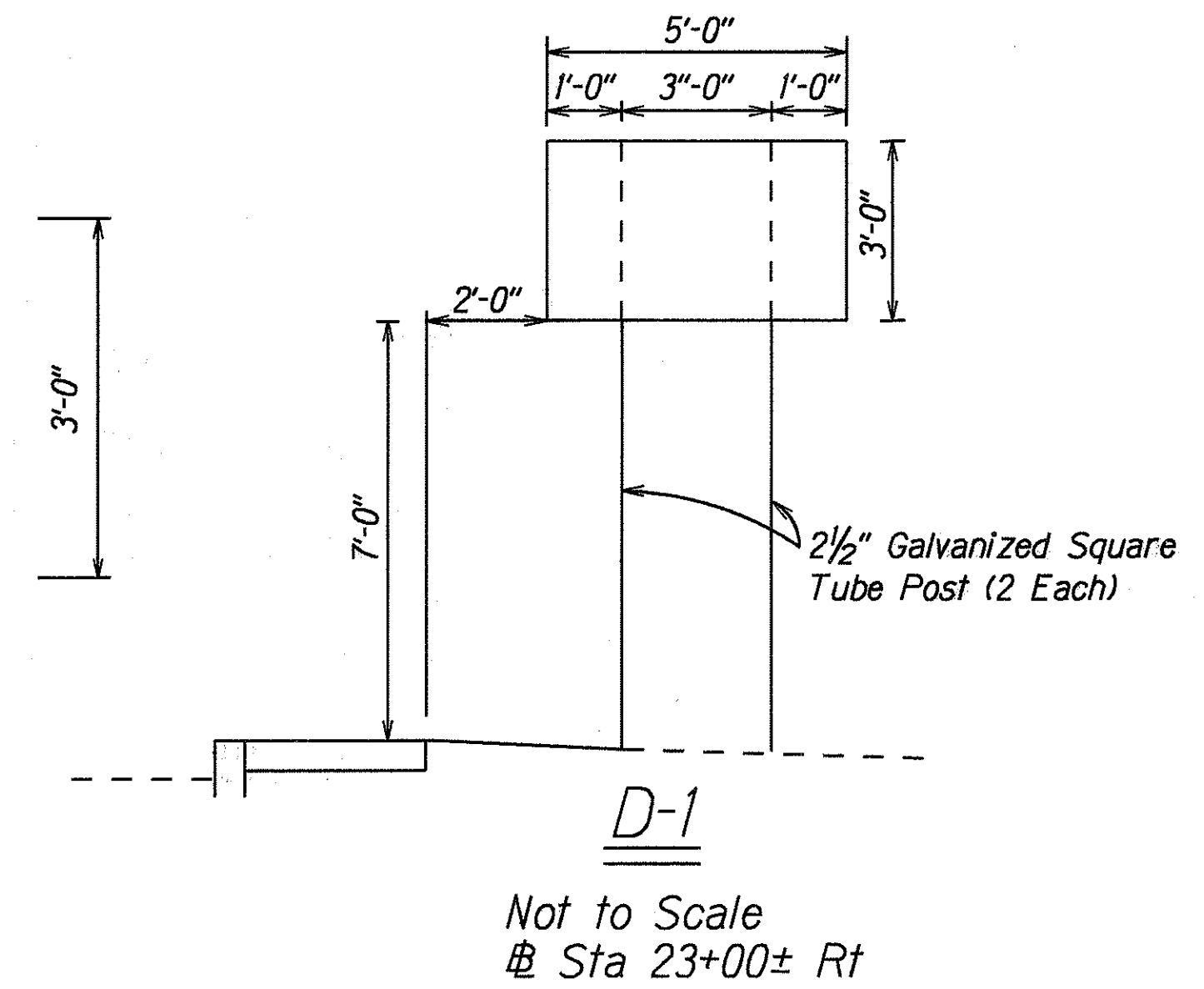
E-1
Not to Scale



E-1
Not to Scale
Sta 41+00± Rt



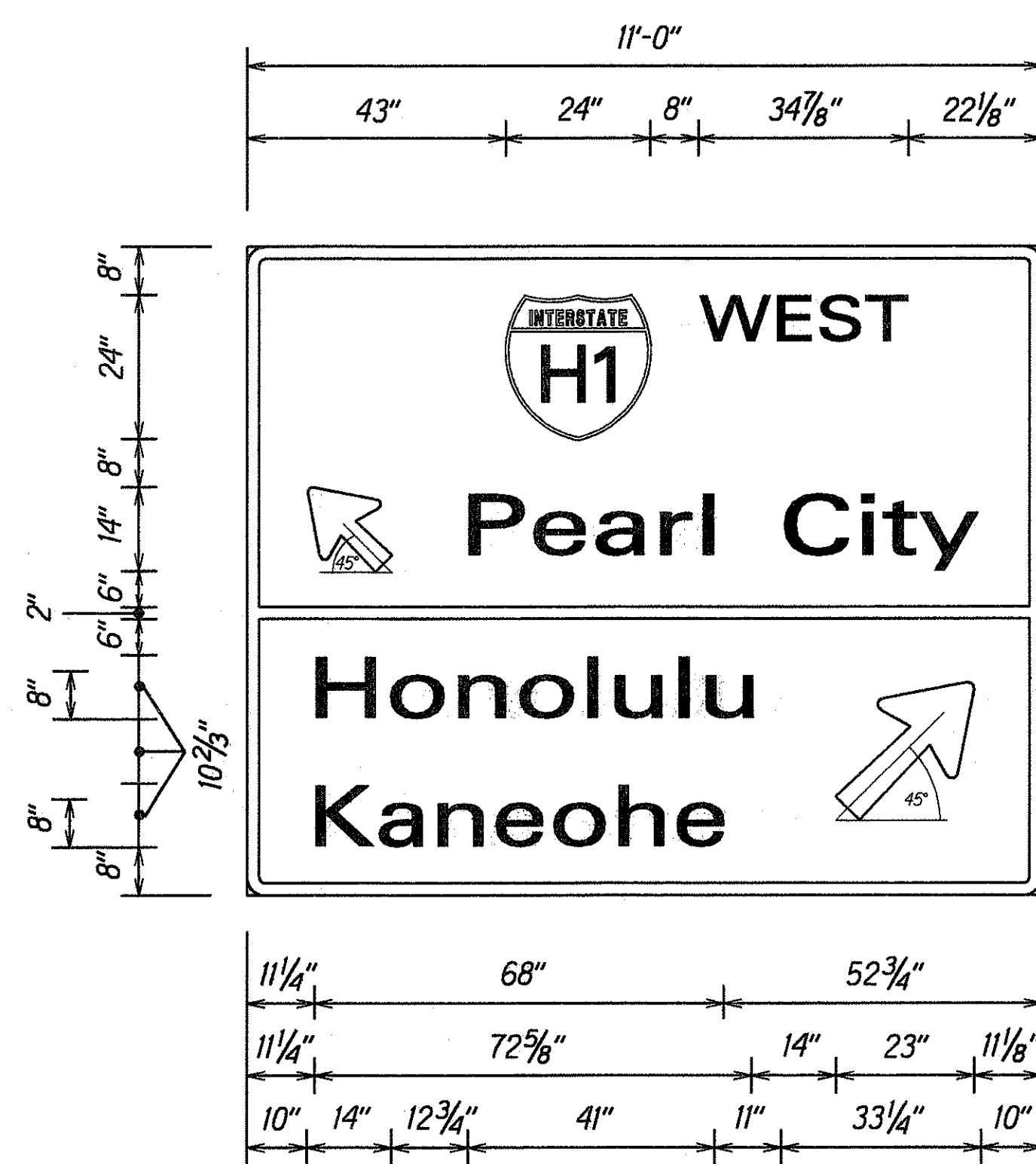
D-1
Not to Scale



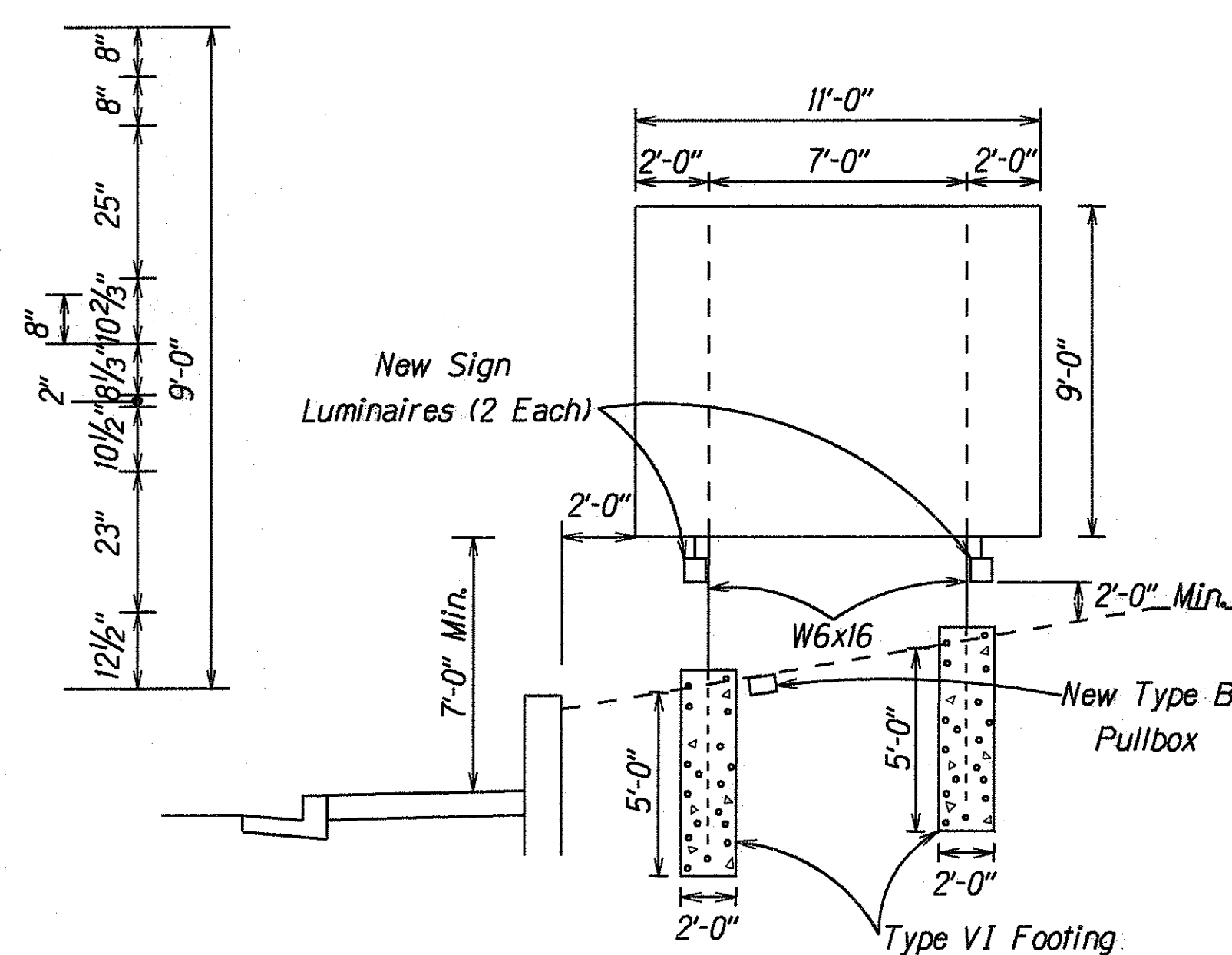
D-1
Not to Scale
Sta 23+00± Rt

EXPRESSWAY (E) AND DESTINATION (D) SIGN NOTES

1. New sign panels shall be laminated aluminum or extruded aluminum.
2. Letter Size:
 - a. When initial uppercase letter is used in conjunction with lower case letters, (Sign E-1 & E-2) use series "E" (M) for the upper case letter and series E for lowercase letters.
 - b. For Sign D-3, use series B & D as shown on sign detail.
3. Contractor shall submit all sign splicing details to the Engineer for approval. All backings for signs 4 feet by 6 feet or less shall be of one sheet.
4. The amount and center-to-center spacing of Expressway Sign Luminaires shall be in accordance with the luminaires manufacturer's instructions. Maximum center-to-center spacing of luminaires shall be 10-feet.
5. Destination and Expressway Sign Posts and Foundations shall be as noted on the plans.
6. Incidental parts and services, not shown on the plans or specified but deemed necessary for the sign and sign luminaire installation, shall be furnished and installed by the Contractor as part of the work contracted.
7. Removal and disposal of existing sign panels, posts with footings and supports will not be paid for separately, but shall be considered incidental to the various signing items.



E-2
Not to Scale



E-2
Not to Scale
Sta 18+00± Lt

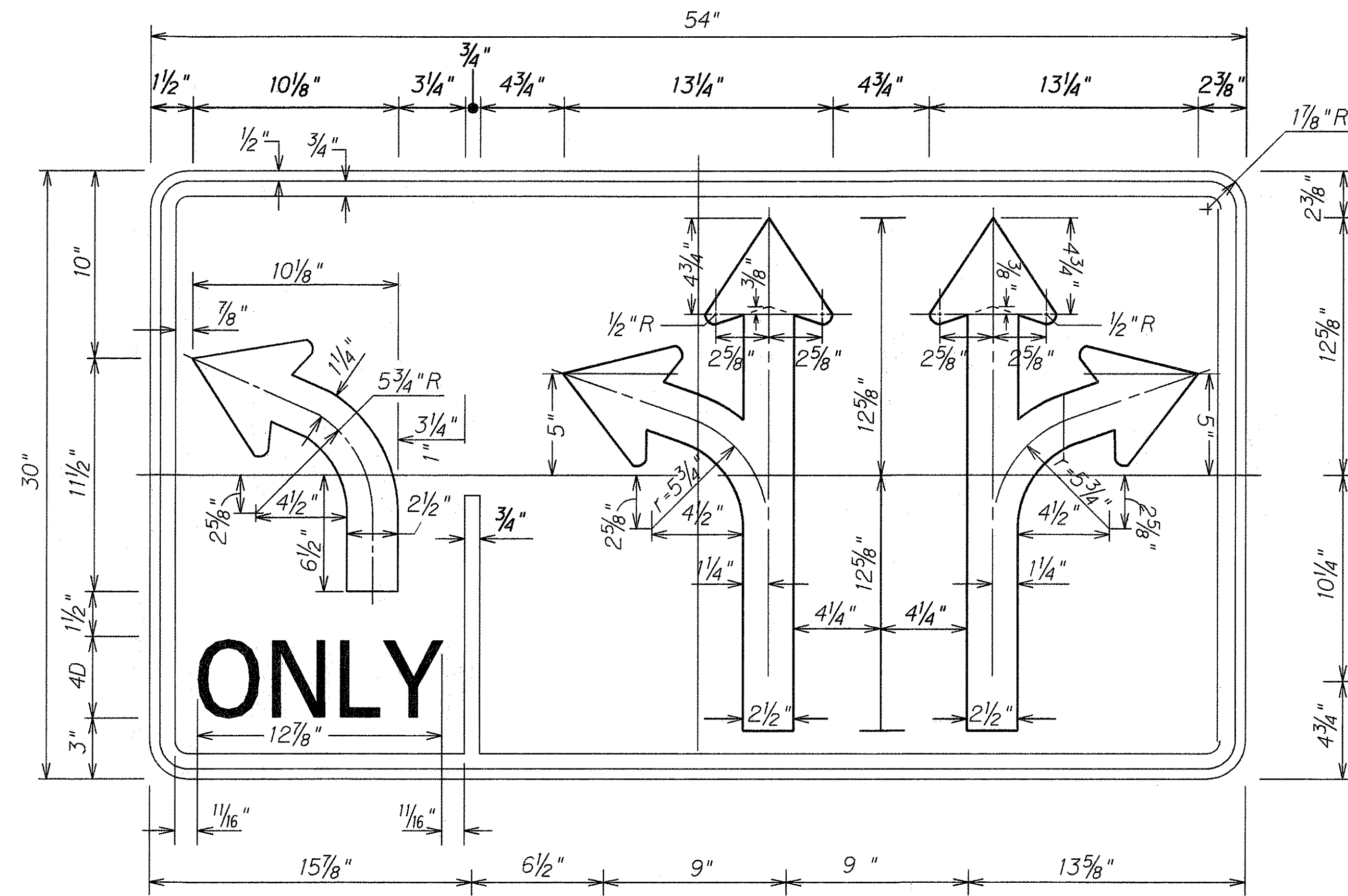
ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	2/7/96
DRAWN BY	M. Taketani
CHECKED BY	C. Abe
DESIGNED BY	
APPROVED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

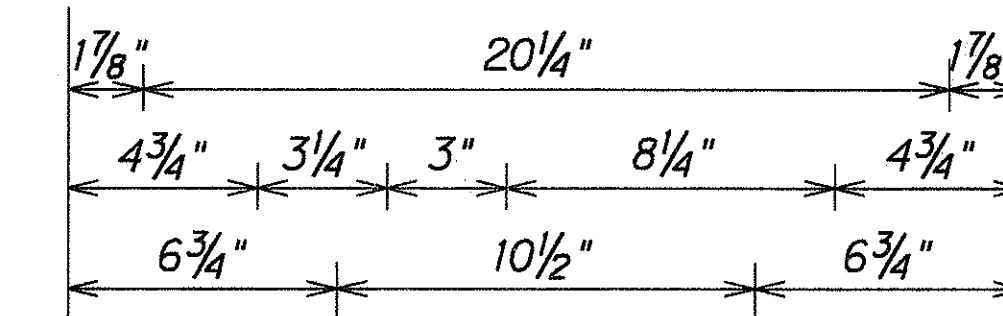
SIGN DETAILS & FRAME LAYOUT

ULUNE STREET IMPROVEMENTS
Halawa Hts. Rd. to Halawa Valley Rd. &
HALAWA VALLEY RD. IMPROVEMENTS
Ulune Street to Iwaiwa Street
F.A. Project No. STP-0300(39)
Not to Scale Date: Apr., 1996
SHEET No. T4 OF 19 SHEETS

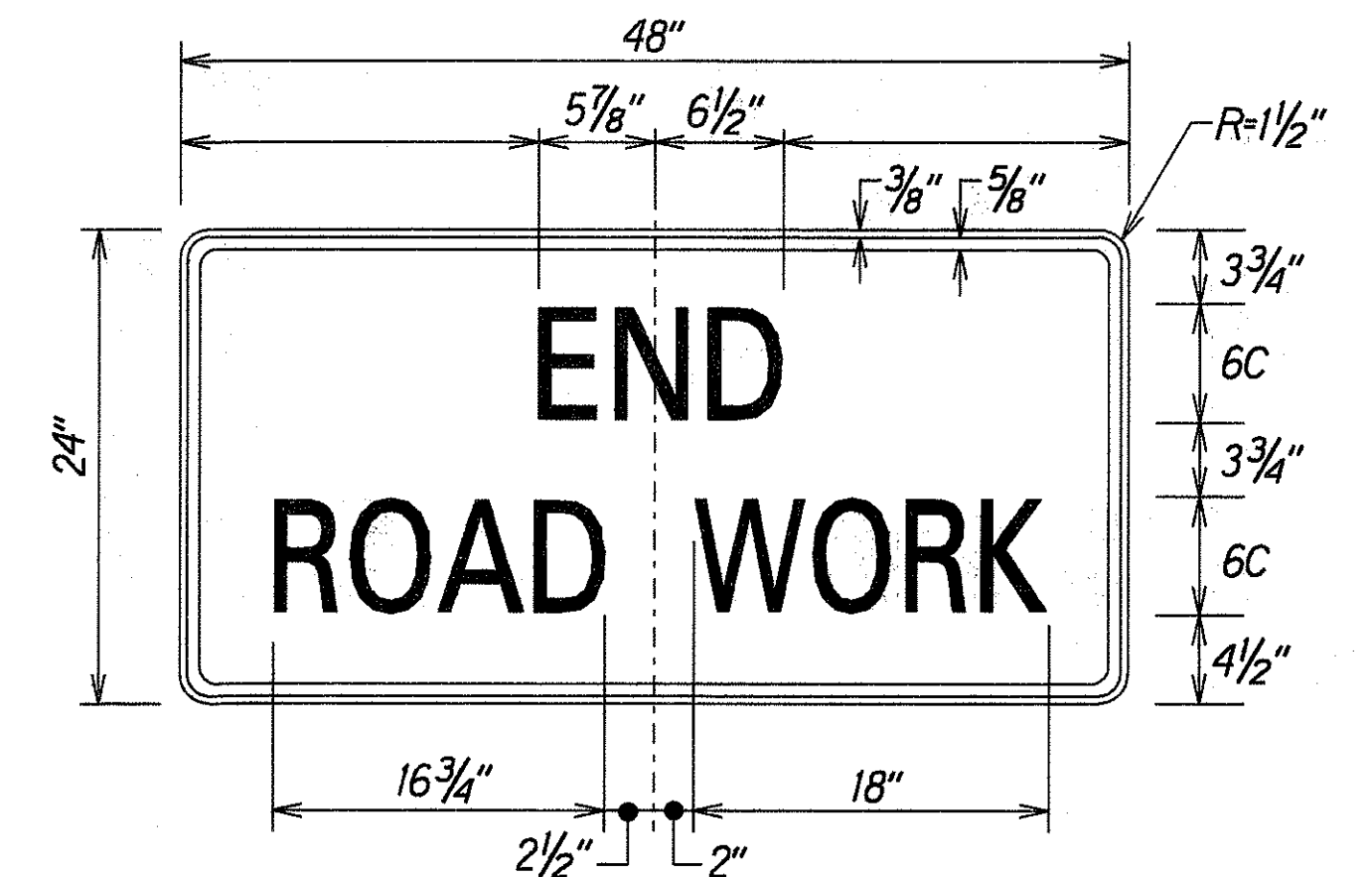
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(39)	1996	48	70



R3-47
3"=1'-0"

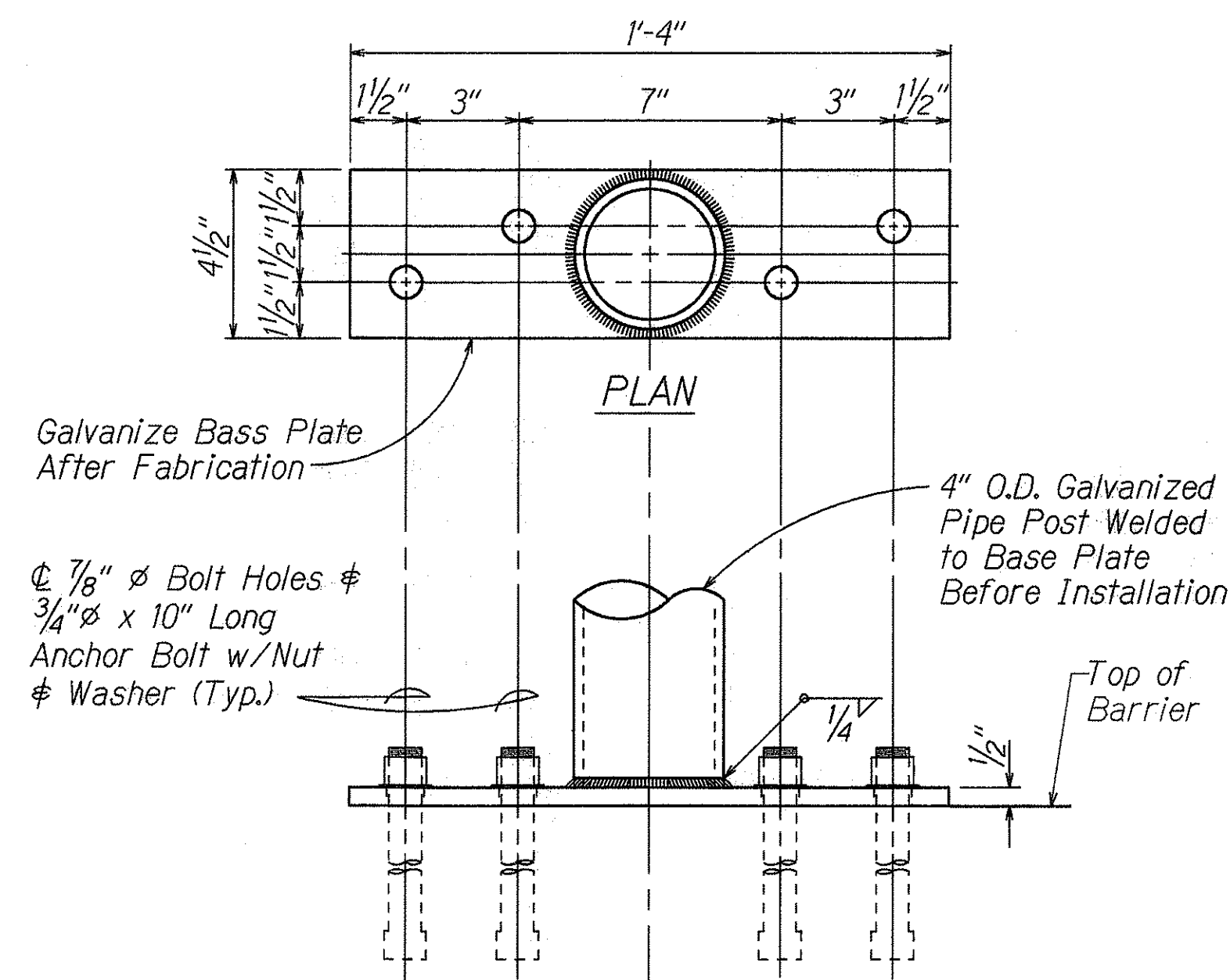


R8-8
3"=1'-0"

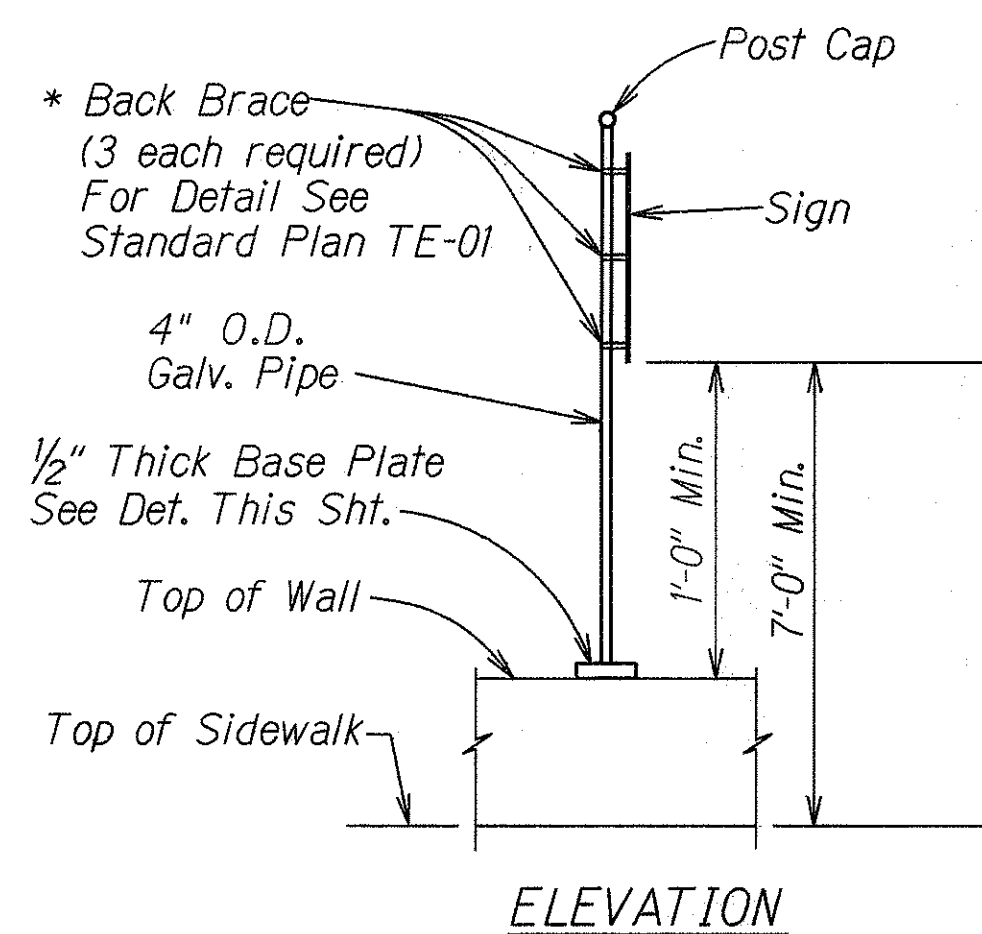


CG20-2A
Scale: 1/2" = 1'-0"

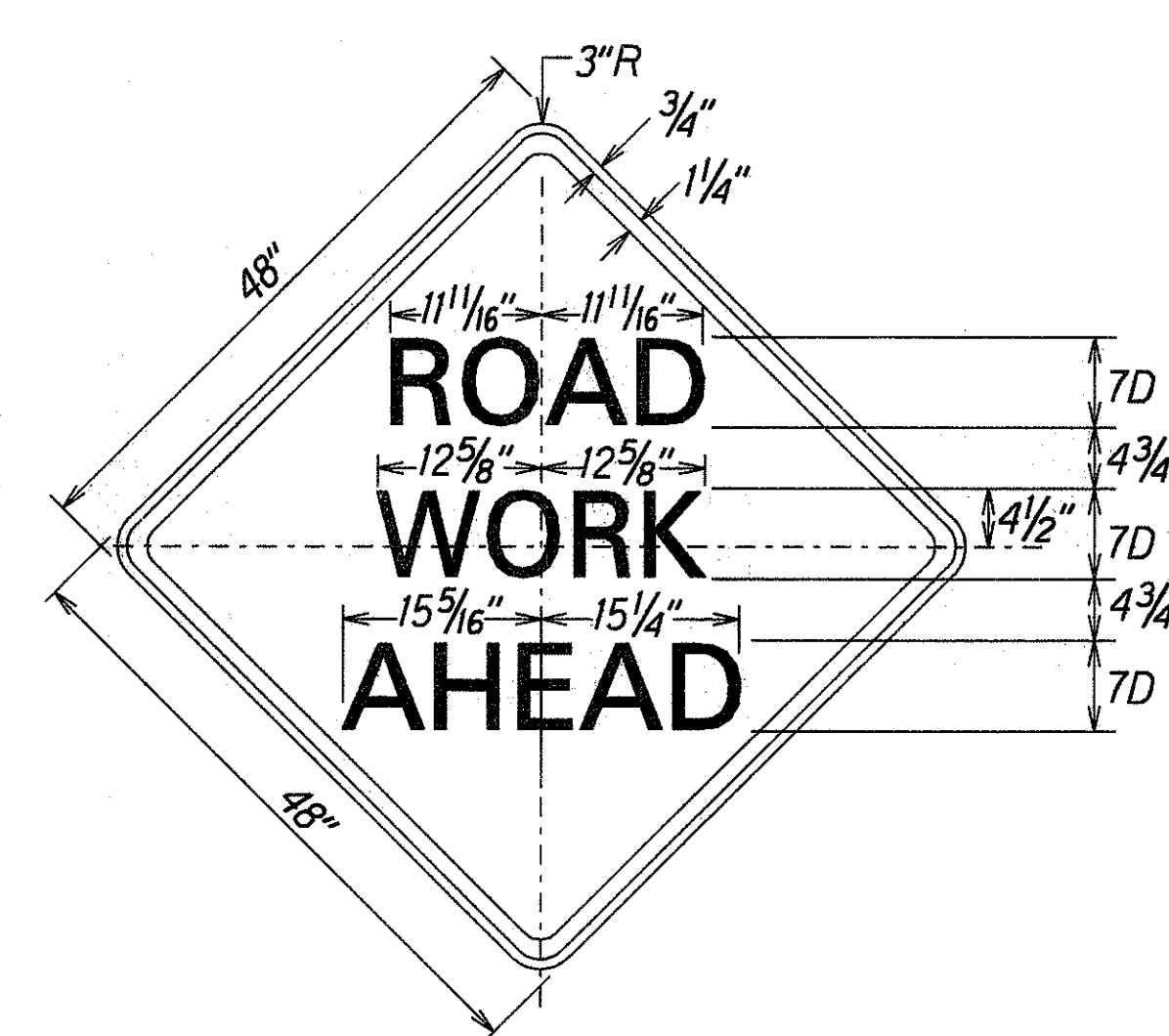
Colors:
Legend: Black (Non Refl)
Background: Orange



ELEVATION
SIGN POST
BASE PLATE DETAIL
Scale: 3"=1'-0"



SIGN MOUNTED ON RETAINING WALL
Not to Scale



CW20-1A(d)
Scale: 1" = 1'-0"

Colors:
Legend: Black (Non Refl)
Background: Orange

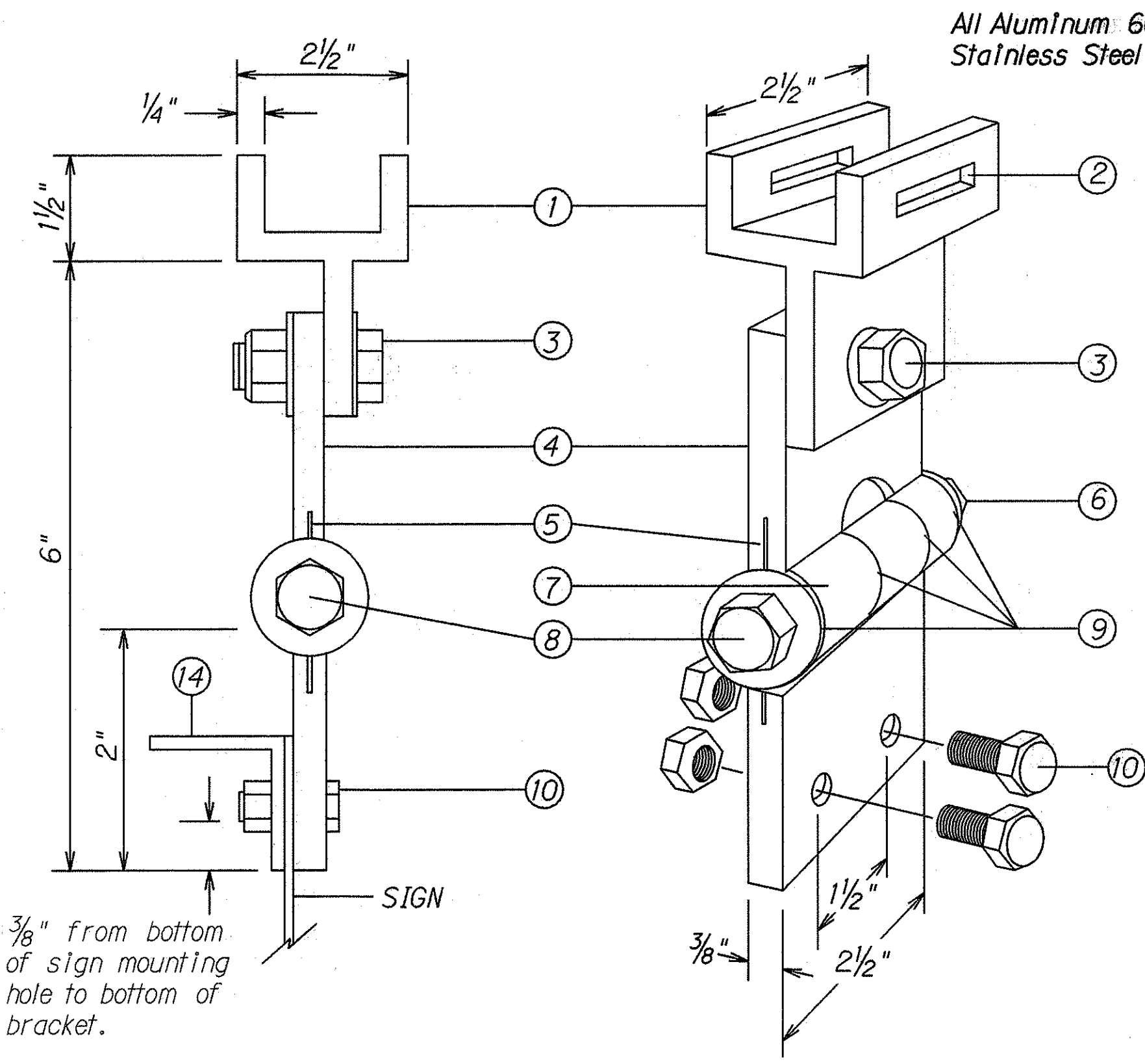
ORIGINAL PLAN	DATE	2/15/96
SURVEY PLOTTED BY		
DRAWN BY	J. Takahashi	
DESIGNED BY	C. Abe	
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MISCELLANEOUS SIGN DETAIL
ULUNE STREET IMPROVEMENTS
Halawa Hts. Rd. to Halawa Valley Rd. #
HALAWA VALLEY RD. IMPROVEMENTS
Ulune Street to Iwaiwa Street
F.A. Project No. STP-0300(39)
Scale: As Shown Date: Apr., 1996
SHEET No. T5 OF 19 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(39)	1996	49	70

NOTES:

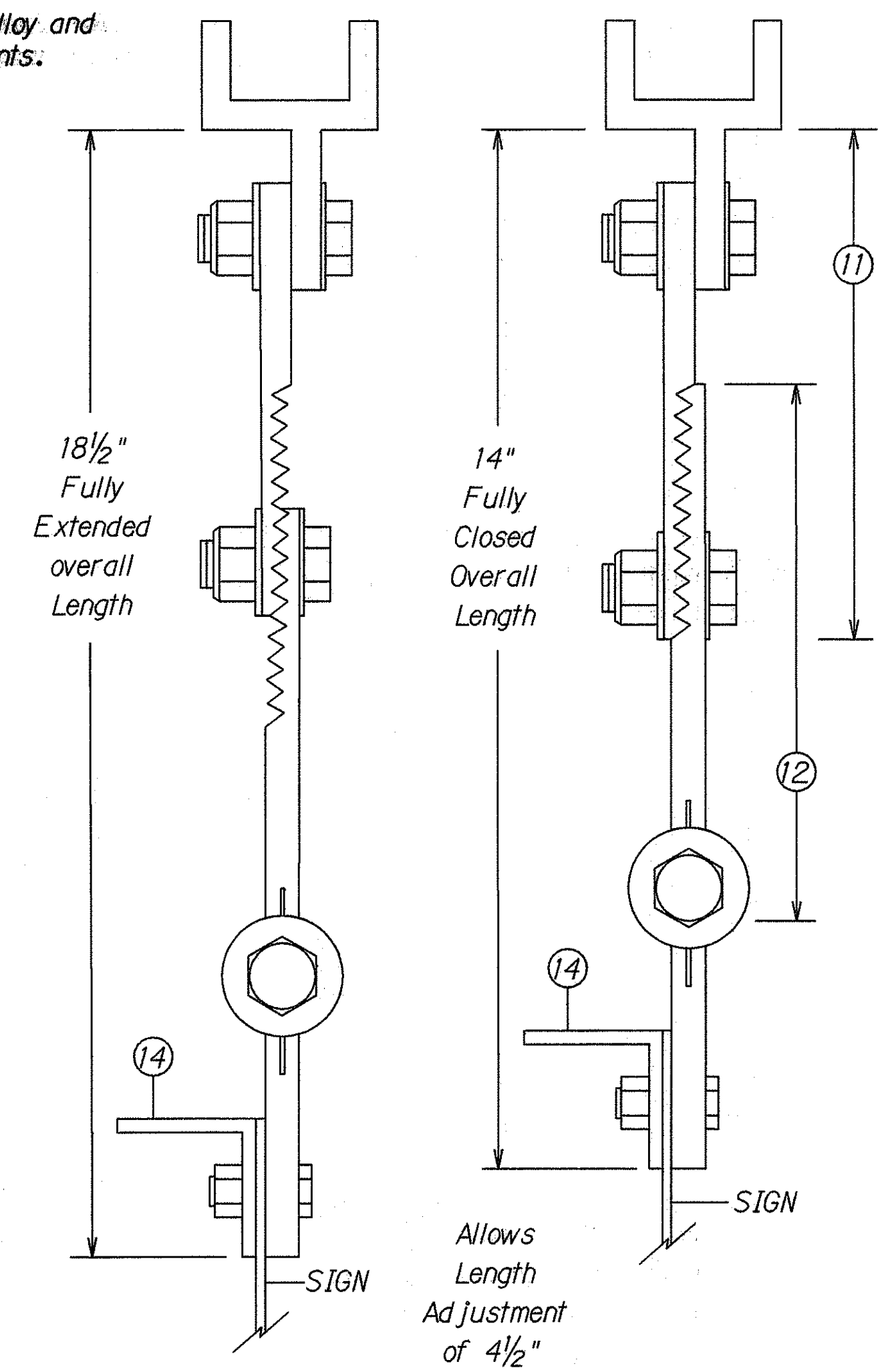
- Signs D3-1 & D3-2 shall be new Street Name Signs. The Contractor shall provide the same message on the front and back side of the sign. Payment will not be made separately but shall be considered as one unit.
- Colors:
Legend - White (Reflectorized)
Background - Green (Reflectorized)
- All panels shall be reflectorized with Type B reflective sheeting in accordance with Section 712.20 of the Standard Specifications.
- Borders and messages shall conform to details as shown on the plans and as specified in the MUTCD.
- Sign mounting brackets, aluminum angle, fixtures, fasteners, and all necessary hardware, and equipment, tools, labor, materials and other incidentals for installation, will not be paid for separately but shall be considered incidental to street name sign installation.
- All signs shall conform to section 621 of the Standard Specifications and the latest editions and amendments of the following FHWA publications:
 - "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD)
 - "Standard Highway Signs"
 - "Standard Alphabets for Highway Signs"
- The two diacritical marks the glottal stop, a break shown by the apostrophe (') and the macron (-), which serves two functions, used on all long vowels, and on one-syllable words and particles that are always stressed, shall be installed on the new Street Name Signs in accordance with the book entitled, "Hawaiian Street Names", The Hawaiian Dictionary and History of Oahu Street Names.



FIXED LENGTH NON-ADJUSTABLE SWING SIGN BRACKET

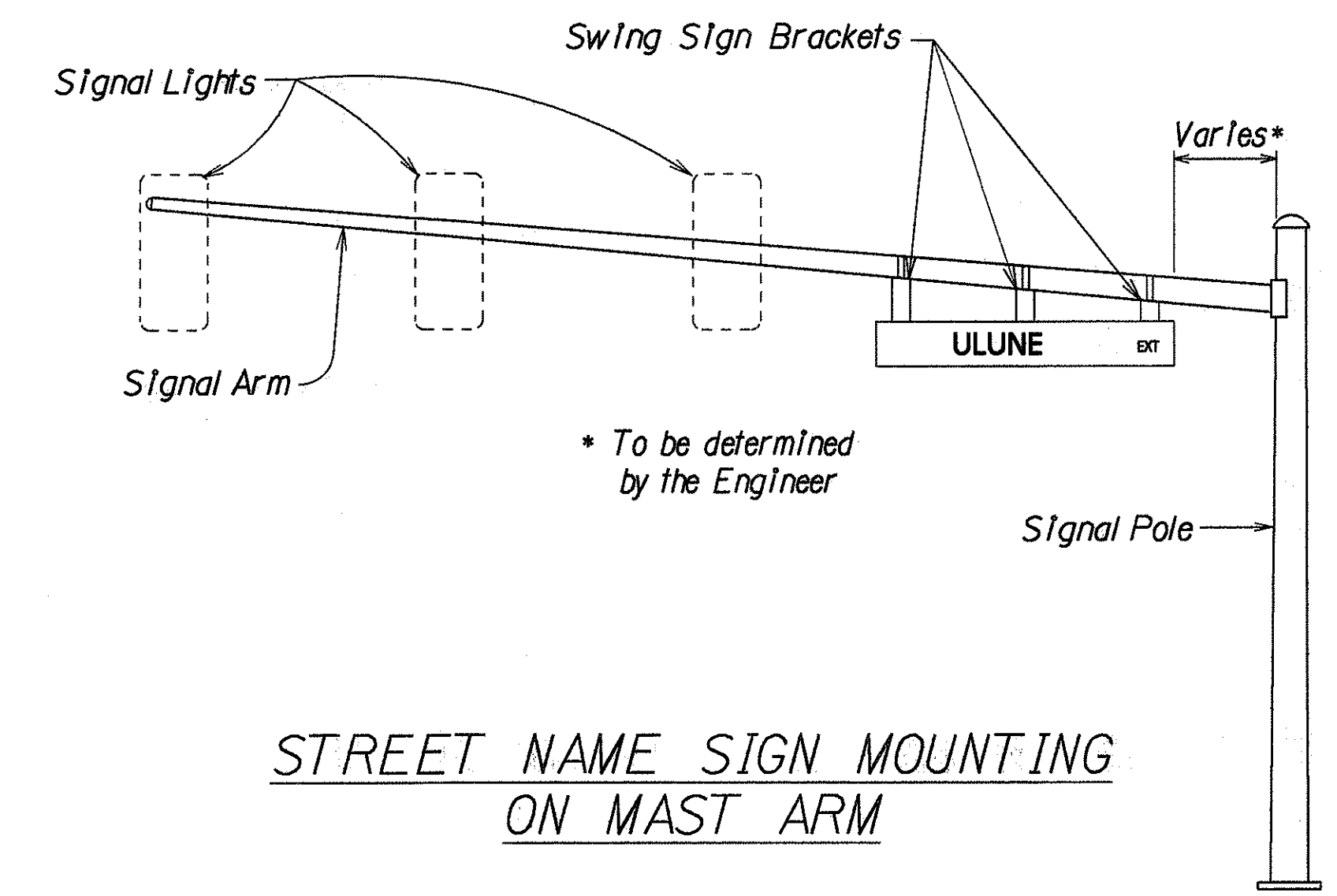
- Pivotal Upper Bracket
- 1 3/8" x 1/4" Slot for double strapping to electroliner mast arm. (M2G-34S(HD) .030" x 3/4" Heavy Duty Stainless Steel Strap with M2G-34B(HD) Buckle recommended.)
- 1/2" - 13 x 1 1/2" Stainless Steel Hex Head Bolt with Stainless Steel Hex Lock Nut and 1/16" Stainless Steel Washer (both sides). Allows upper bracket to pivot and align with electroliner mast arm.
- 6" Overall drop with Fixed Length Sign Bracket
- Stainless Steel Damper Spring (Removable)
- Stainless Steel Hex Lock Nut with 1/16" Stainless Steel Washer
- 1" O.D. Axle Housing
- 1/2" - 13 x 4" Stainless Steel Hex Head Bolt with 1/16" Stainless Steel Washer
- Ollite Bushing
- Sign Mounting Sets, consisting of two each 3/8" - 18 x 1" Stainless Steel Hex Head Bolt with Stainless Steel Hex Lock Nut. Two holes on 1/2" centers provide positive lock sign mounting to bracket.
- 8 1/4" overall length Upper Adjustable Sign Bracket section
- 9" overall length Lower Adjustable Sign Bracket section, including Axle Housing (8" overall length to top of Axle Housing)
- 1/2" - 13 x 1 1/2" Stainless Steel Hex Bolt with Stainless Steel Hex Lock Nut and 1/16" Stainless Steel Washers (both sides). Loosen lock nut, adjust bracket teeth to level sign.
- 1/4" x 1/4" x 1/8" Aluminum Angle

Note: Dimensions may vary slightly.



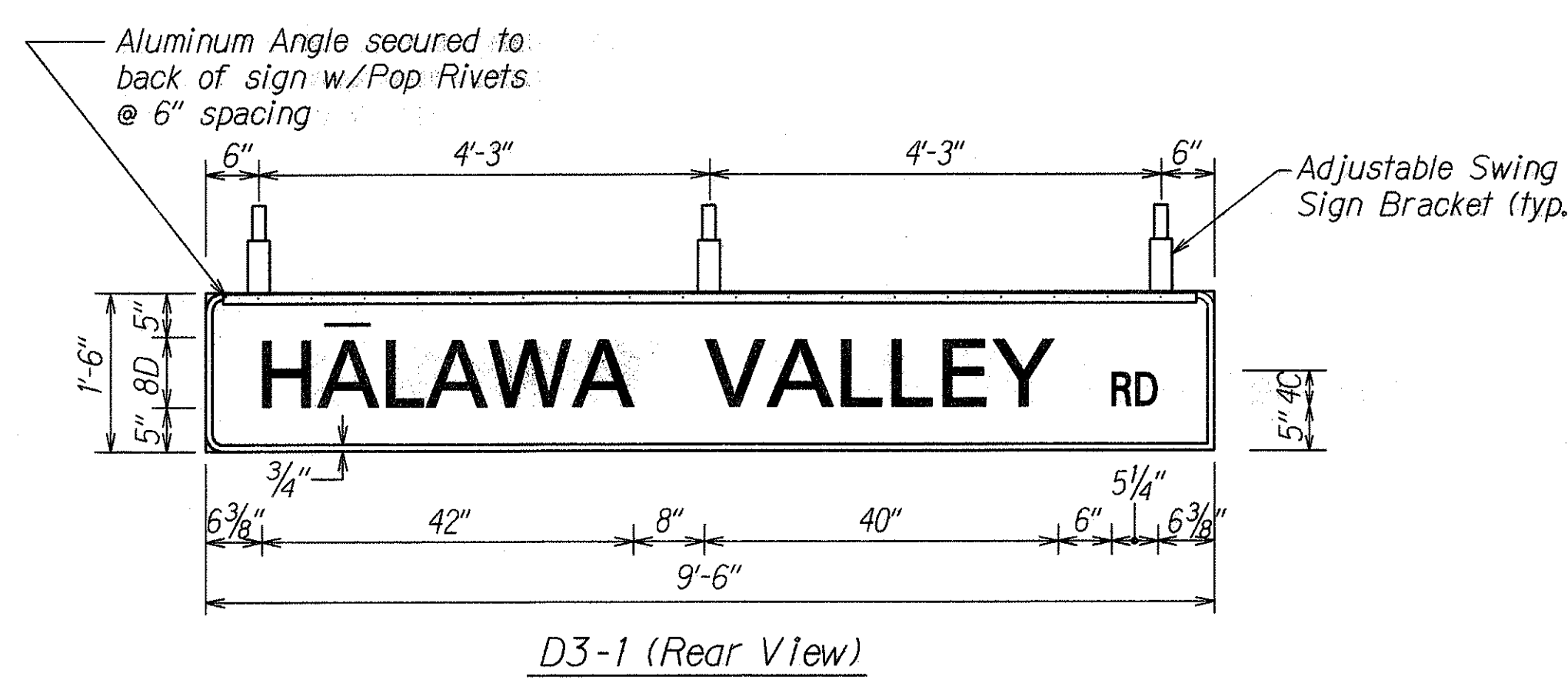
ADJUSTABLE LENGTH SWING SIGN BRACKET

Allows Length Adjustment of 4 1/2"

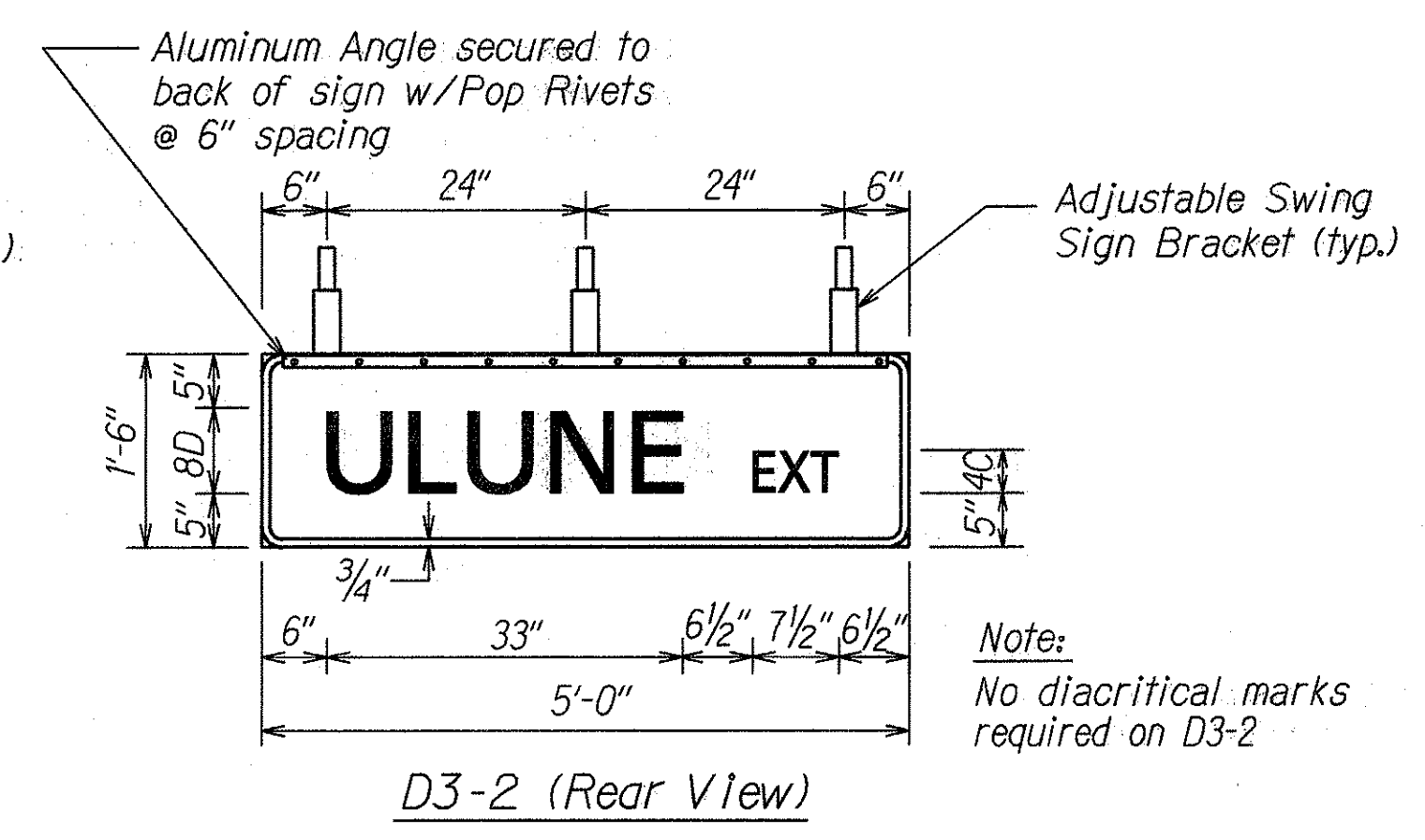


STREET NAME SIGN MOUNTING ON MAST ARM

* To be determined by the Engineer



D3-1 (Rear View)



D3-2 (Rear View)

TYPICAL PANEL & SWING BRACKET LAYOUT FOR STREET NAME SIGN

Note: No diacritical marks required on D3-2


DATE	2/2/96
SURVEY PLOTTED BY	JL
DRAWN BY	JL
NOTED BY	C. Ahe
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
DATE	1/2/96
CHECKED BY	


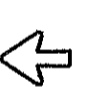



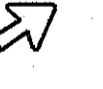
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SWING SIGN BRACKET DETAIL
ULUNE STREET IMPROVEMENTS
Halawa Hts. Rd. to Halawa Valley Rd. &
HALAWA VALLEY RD. IMPROVEMENTS
Ulune Street to Iwaiwa Street
F.A. Project No. STP-0300(39)
Not to Scale Date: Apr., 1996
SHEET No. T6 OF 19 SHEETS


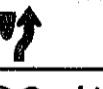

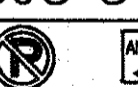
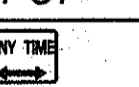
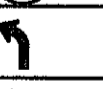



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(39)	1996	50	70

PAVEMENT MARKING SUMMARY	
DESCRIPTION	QUANTITY
PAVEMENT MARKERS	
TYPE A _____	92 EA.
TYPE C _____	140 EA.
TYPE D _____	29 EA.
TYPE H _____	40 EA.
TAPE - TYPE I OR THERMOPLASTIC EXTRUSION	
4-INCH PAVEMENT STRIPE (WHITE) _____	270 L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	80 L.F.
DOUBLE 4-INCH PAVEMENT STRIPE (YELLOW) _____	590 L.F.
TAPE - TYPE II OR THERMOPLASTIC EXTRUSION	
4-INCH PAVEMENT STRIPE (WHITE) _____	2,880 L.F.
4-INCH PAVEMENT STRIPE (YELLOW) _____	150 L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	600 L.F.
12-INCH PAVEMENT STRIPE (WHITE) _____	150 L.F.
12-INCH PAVEMENT STRIPE (YELLOW) _____	100 L.F.
DOUBLE 4-INCH PAVEMENT STRIPE (YELLOW) _____	740 L.F.
TAPE - TYPE III OR THERMOPLASTIC EXTRUSION	
4-INCH PAVEMENT STRIPE (WHITE) _____	140 L.F.
12-INCH PAVEMENT STRIPE (WHITE) _____	70 L.F.
CROSSWALK MARKINGS _____	6 LANES
PAVEMENT ARROW _____	10 EA.
PAVEMENT WORD _____	2 EA.

CONSTRUCTION SIGN SUMMARY			
SIGN NO.	MESSAGE	W/POSTS	W/O POST
CG20-2A	END ROAD WORK	5	
CW20-1A(d)	ROAD WORK AHEAD	4	
TOTAL		9	∅

DESTINATION (D) SIGN SUMMARY					
SIGN NO.	LOCATION	MESSAGE	SIZE	NEW PANEL AREA (SQ. FT.)	
				W/O POSTS	W/POSTS
D-1	Sta. 23+00 Rt	 HALAWA BUS FACILITY CENTRAL PARK INDUSTRIAL AREA IWAENA STREET	5'-0"x3'-0"		15.0
TOTAL				∅	15.0

EXPRESSWAY (E) SIGN SUMMARY					
SIGN NO.	LOCATION	MESSAGE	SIZE	NEW PANEL AREA (SQ. FT.)	SIGN LUMINAIRE
E-1	Sta 41+00 Rt	 Ulune St  Stadium Honolulu Halawa Hts Camp Smith 	12'-6"x10'-6"	131.25	2
E-2	Sta 18+00 Lt	  WEST Pearl City Honolulu Kaneohe 	11'-0"x9'-0"	99.00	2
TOTAL				230.25	4

TRAFFIC SIGN SUMMARY					
SIGN NO.	MESSAGE	QUANTITY			
		10 SQ. FT. OR LESS		GREATER THAN 10 SQ. FT.	
		W/POST	W/O POST	W/POSTS	W/O POSTS
R1-2	YIELD	1**			
R2-1(25)	SPEED LIMIT 25			1	1
R3-47					2
R4-7		1	1		
R5-1	DO NOT ENTER		1		
R7-201a			2		
R7-107b*	BUS STOP	1			
R8-3a	 	2			
W1-2(L)		1**			
W1-2(R)		1			
R16-5	UNLICENSED VEHICLES			1	
W2-2		1			
W3-3		1**			
R8-8	NO PARKING IN THIS AREA	1			
TOTAL		10	4	2	3

SURVEY PLOTTED BY DATE 2/28/96
 DRAWN BY J. T. T. T.
 CHECKED BY C. A. A.
 QUANTITIES BY
 ORIGINAL PLAN
 NOTE BOOK
 10/2/96
 10/2/96

*For Sign No. R7-107b Detail, contact: Alan Kim, Honolulu Public Transit Authority, 711 Kapiolani Boulevard, Suite 275, Honolulu, Hawaii 96813, Ph. No. 523-4734
 **To be installed on Retaining Wall

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
TRAFFIC SUMMARIES
 ULUNE STREET IMPROVEMENTS
 Halawa Hts. Rd. to Halawa Valley Rd. #
 HALAWA VALLEY RD. IMPROVEMENTS
 Ulune Street to Iwaiwa Street
 F.A. Project No. STP-0300(39)
 Date: Apr., 1996
 SHEET No. 77 OF 19 SHEETS