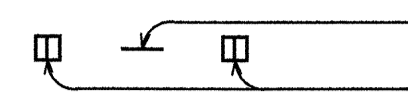
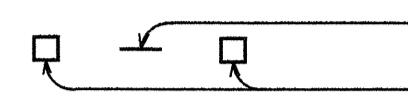
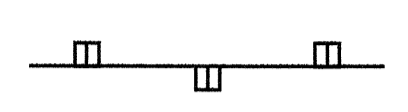










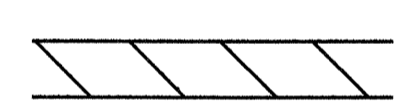
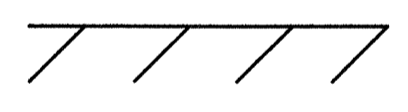





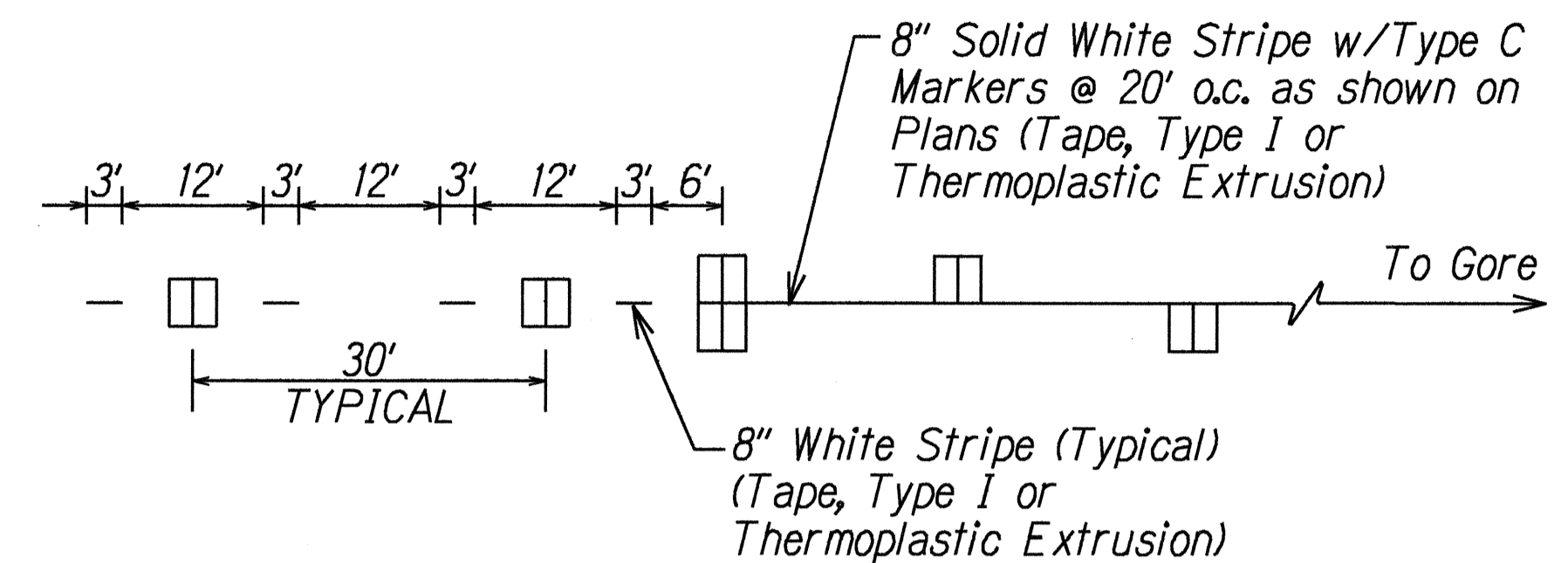
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-00	2001	9	19

**LEGEND**

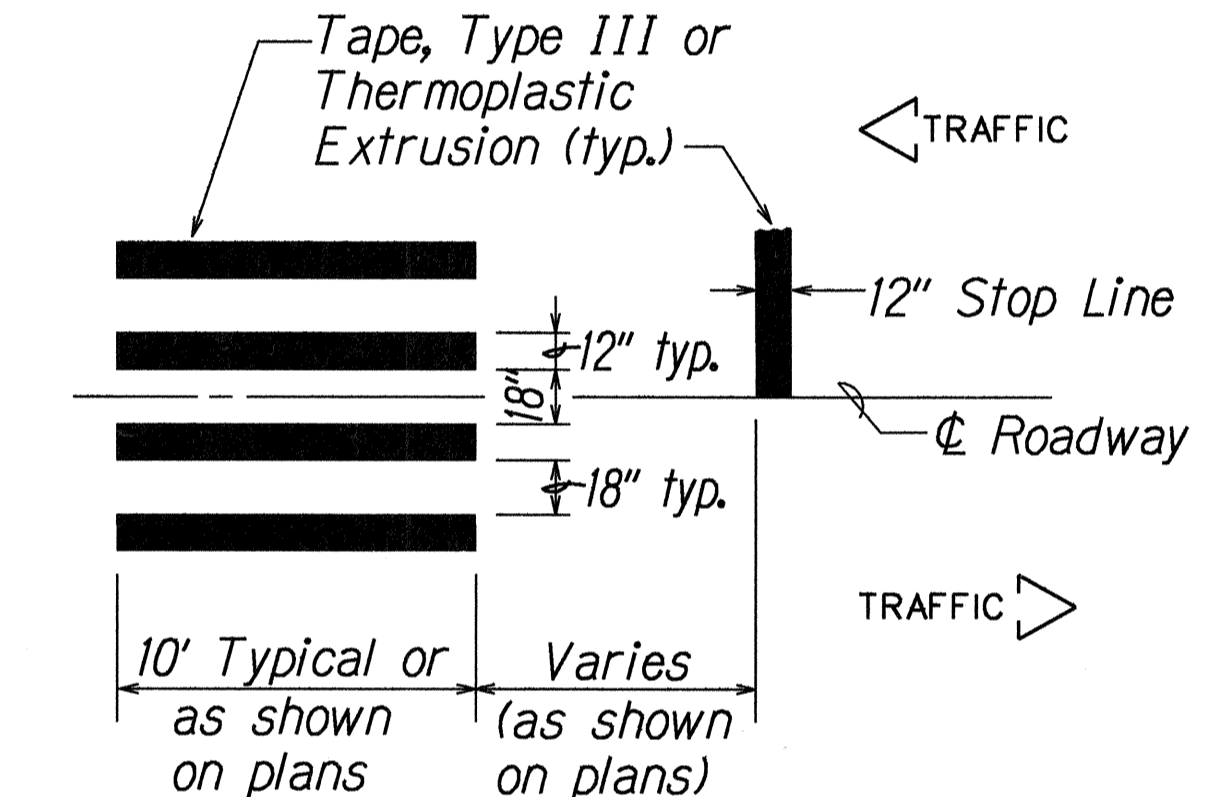
-  4 each Type A Raised Pavement Markers  
Type C Raised Pavement Markers @ 40'-0" o.c.
-  4 each Type J Raised Pavement Markers  
Type D Raised Pavement Markers @ 40'-0" o.c.
-  8" White Stripe with Type C Raised Pavement Markers @ 20'-0" o.c. (Tape, Type I or Thermoplastic Extrusion)
-  4" Double Solid Yellow with Type D Raised Pavement Markers @ 20'-0" o.c. (Tape, Type I or Thermoplastic Extrusion))
-  4" Double Solid Yellow Stripes with Type H Raised Pavement Markers @ 20'-0" o.c. (Tape, Type II or Thermoplastic Extrusion))
-  4" Yellow Edge Stripe with Type H Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion))
-  4" Double Solid White Stripes with Type C Raised Pavement Markers @ 20'-0" o.c. (Tape, Type I or Thermoplastic Extrusion)
-  Lane Change Restriction Marking  
4 each Type A Raised Pavement Markers  
Type C Raised Pavement Markers @ 20'-0" o.c.  
4" White Stripe (Tape, Type I or Thermoplastic Extrusion)
-  4" or 8" White Edge Stripe with Type C Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
-  4" White Guide Lines (Tape, Type III or Thermoplastic Extrusion except for bus bays)
-  Transverse Median Marking (Tape, Type II or Thermoplastic Extrusion)
-  Transverse Shoulder Marking (Tape, Type II or Thermoplastic Extrusion)
-  Channelizing Island or Deceleration Lane Gore (Tape, Type II or Thermoplastic Extrusion)
-  Crosswalk and Stop Line. All Stop Lines shall be 10'-0" from Crosswalk unless otherwise noted. The circled number indicates the number of lanes for payment (Tape, Type III or Thermoplastic Extrusion)
-  Pavement Arrow (Tape, Type III or Thermoplastic Extrusion)
-  Pavement Word (Tape, Type III or Thermoplastic Extrusion)
-  4 Each Type J Raised Pavement Markers  
Type D Raised Pavement Markers @ 40'-0" o.c.  
Type H Raised Pavement Markers (Reflective Surface facing no-passing direction)  
4" Single Solid Yellow Stripe (Tape, Type I or Thermoplastic Extrusion)
-  Extension of Edge Line, 4" Wide x 2'-0" Long White Stripe @ 10'-0" o.c. w/Type C Markers @ 40'-0" o.c. (Tape, Type III or Thermoplastic Extrusion)

**NOTES**

1. Layout of pavement markings and striping shall be done by the Contractor and approved by the Engineer prior to any installation work.
2. Existing pavement markings not incorporated in the final traffic pattern shall be removed as directed by the Engineer. Costs shall be incidental to the various pavement marking items.
3. Raised pavement markers shall not be installed within crosswalks.
4. Final locations of all signs shall be approved by the Engineer prior to any installation work.
5. Existing signs not shown on these plans shall remain as posted unless otherwise directed by the Engineer. Removal and disposal of existing signs and/or posts as designated on these plans shall be incidental to the various signing items.
6. Final locations of all Stop Lines shall be approved by the Engineer prior to installation.
7. All pavement striping shall be as noted on the legend or plans.
8. All preformed pavement marking tapes over existing pavement shall be applied with an approved primer as recommended by the tape manufacturer and as approved by the Engineer. The primer shall be allowed to dry to the tacky stage prior to tape application.
9. Existing signs that are to be replaced shall not be removed until new signs are installed as replacements, or the messages are no longer necessary.
10. Backing for all new regulatory and warning signs shall not be spliced.
11. All sign panels shall conform to Section 621 of Special Provisions and the latest editions and amendments of the following FHWA publications:
  - a. "Manual on Uniform Traffic Control Devices for Street and Highways" (MUTCD)
  - b. "Standard Highway Signs"
  - c. "Standard Alphabets for Highway Signs"
12. All new and relocated signs and markers installed on pipe post or light standard are to be mounted with band brackets and steel braces.
13. The Contractor shall erect at the beginning of the project and at the end of the project advance construction warning signs as indicated on the plans or as directed by the Engineer for the duration of the highway project and shall be maintained by the Contractor. These signs shall be placed in addition to the required traffic control signs called for in Section 645-Traffic Control. The advance construction warning signs shall be new and become the property of the State. The Contractor shall remove, clean, and deliver the signs and posts to the Oahu District Baseyard or as directed by the Engineer at the end of the project.
14. The Contractor shall notify the Oahu Transit Services Inc. (OTS), Ed Sniffen, at 848-4571 or Lowell Tom at 848-4578 two weeks prior to beginning any work, informing them of location, scope of work, proposed closure of any street or traffic lanes, and the need to relocate any bus stop.



**LANE DROP MARKING**  
Not to Scale



**DETAIL "A"**  
**CROSSWALK STRIPING DETAIL**  
Not to Scale

**REFLECTOR MARKERS LEGEND**

- ||— RM-3 (Yellow)
- ||— RM-2 (White)

DESIGNED BY	DATE
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NO. BOOK	
NO. SHEET	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**PAVEMENT MARKING**  
**LEGEND, DETAILS & NOTES**

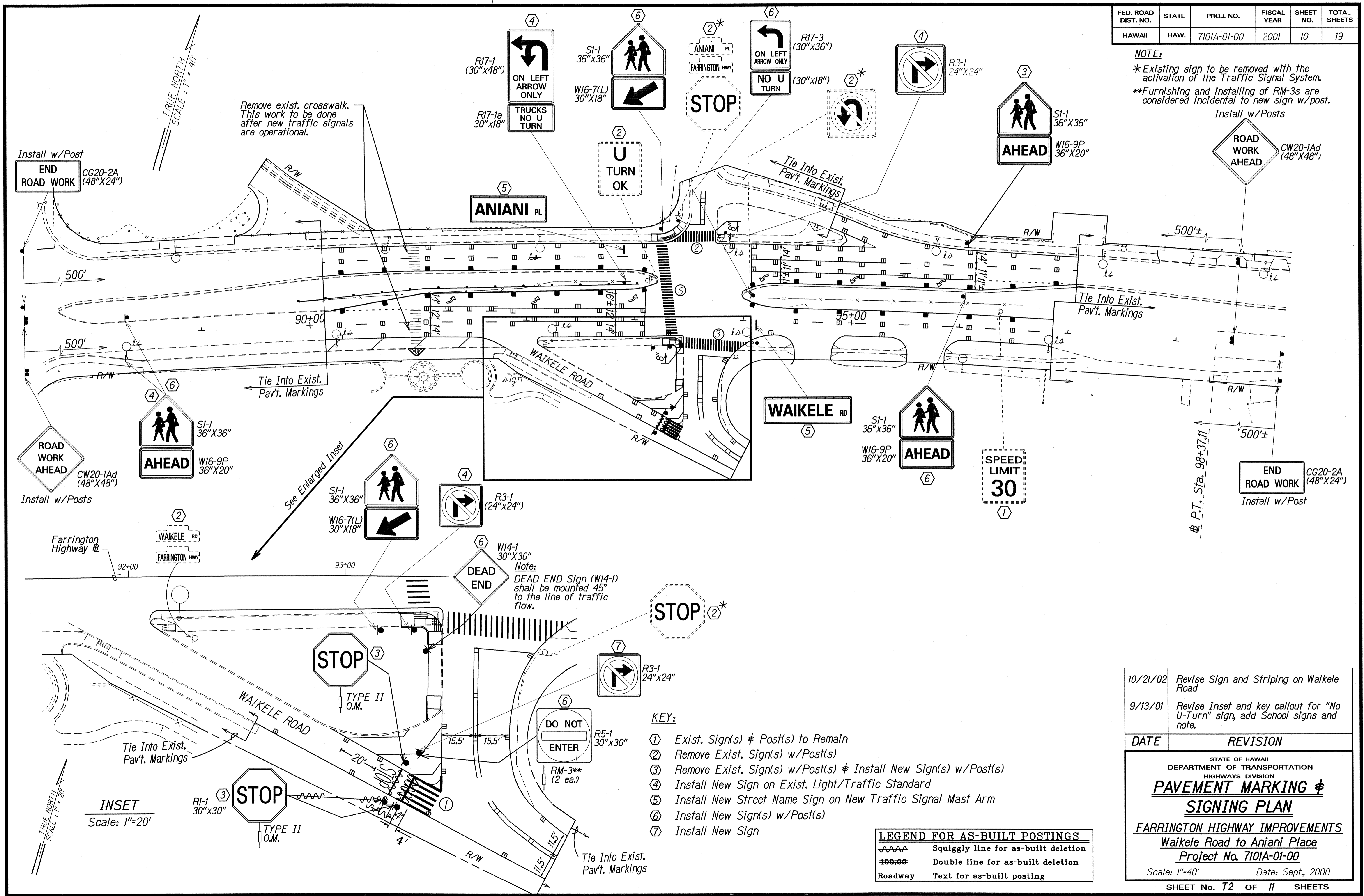
FARRINGTON HIGHWAY IMPROVEMENT  
Waikale Road to Aniani Place  
Project No. 7101A-01-00

Scale: As Noted      Date: Sept., 2000

SHEET No. 11 OF 11 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-00	2001	10	19

**NOTE:**  
 \* Existing sign to be removed with the activation of the Traffic Signal System.  
 \*\*Furnishing and installing of RM-3s are considered incidental to new sign w/post.  
 Install w/Posts



Install w/Post  
**END ROAD WORK**  
 CG20-2A  
 (48"X24")

Install w/Posts  
**ROAD WORK AHEAD**  
 CW20-1Ad  
 (48"X48")

Install w/Posts

Install w/Post  
**END ROAD WORK**  
 CG20-2A  
 (48"X24")

**INSET**  
 Scale: 1"=20'

DATE	REVISION
10/21/02	Revise Sign and Striping on Waikēle Road
9/13/01	Revise Inset and key callout for "No U-Turn" sign, add School signs and note.
DATE	REVISION

- 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 on Exist. Light/Traffic Standard
  - ⑤ Install New Street Name Sign on New Traffic Signal Mast Arm
  - ⑥ Install New Sign(s) w/Post(s)
  - ⑦ Install New Sign

**LEGEND FOR AS-BUILT POSTINGS**

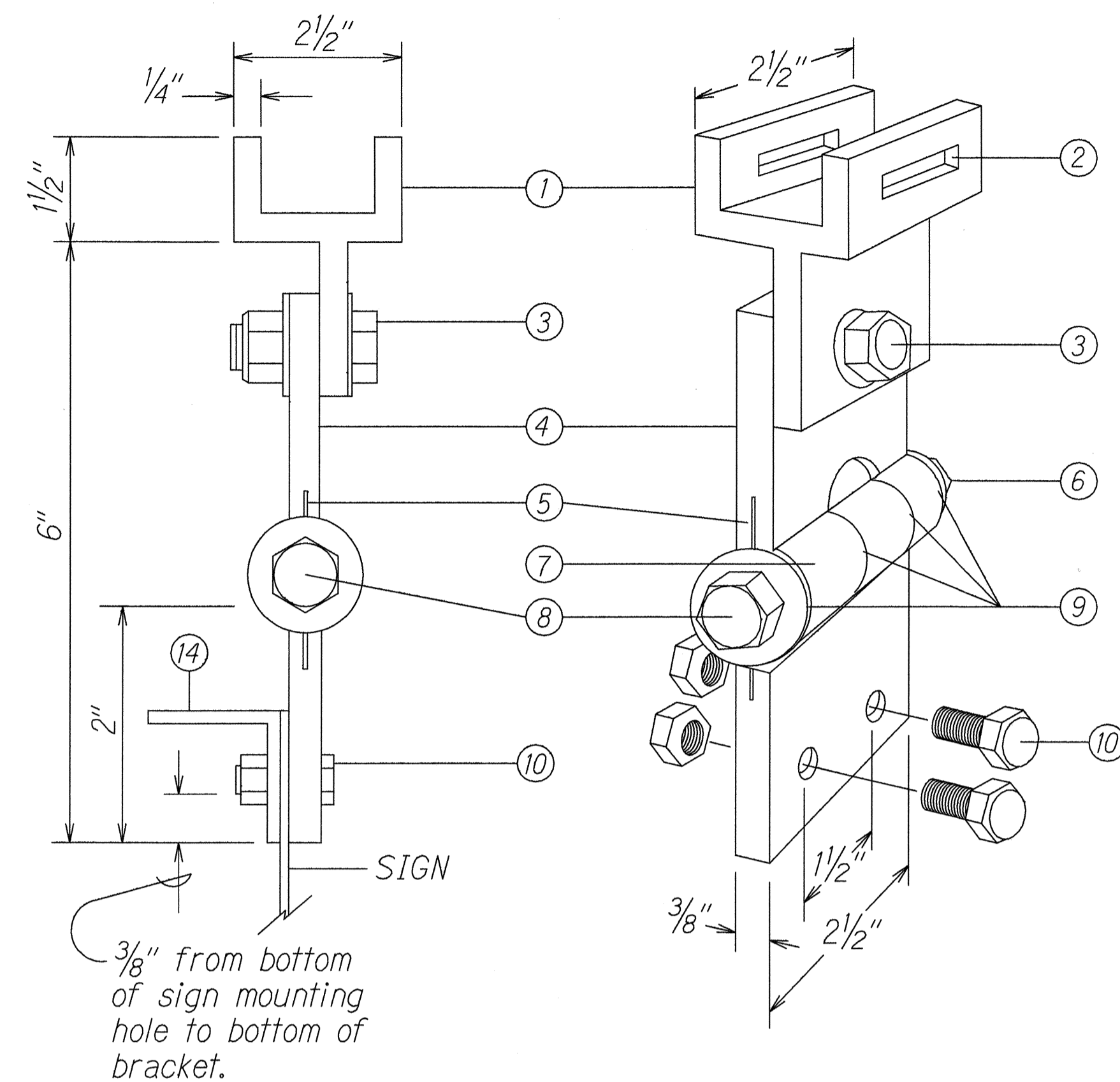
~~~~~	Squiggly line for as-built deletion
====	Double line for as-built deletion
Roadway	Text for as-built posting

DATE	REVISION
10/21/02	Revise Sign and Striping on Waikēle Road
9/13/01	Revise Inset and key callout for "No U-Turn" sign, add School signs and note.
DATE	REVISION

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION  
**PAVEMENT MARKING & SIGNING PLAN**  
 FARRINGTON HIGHWAY IMPROVEMENTS  
 Waikēle Road to Aniani Place  
 Project No. 7101A-01-00  
 Scale: 1"=40' Date: Sept., 2000  
 SHEET No. T2 OF 11 SHEETS

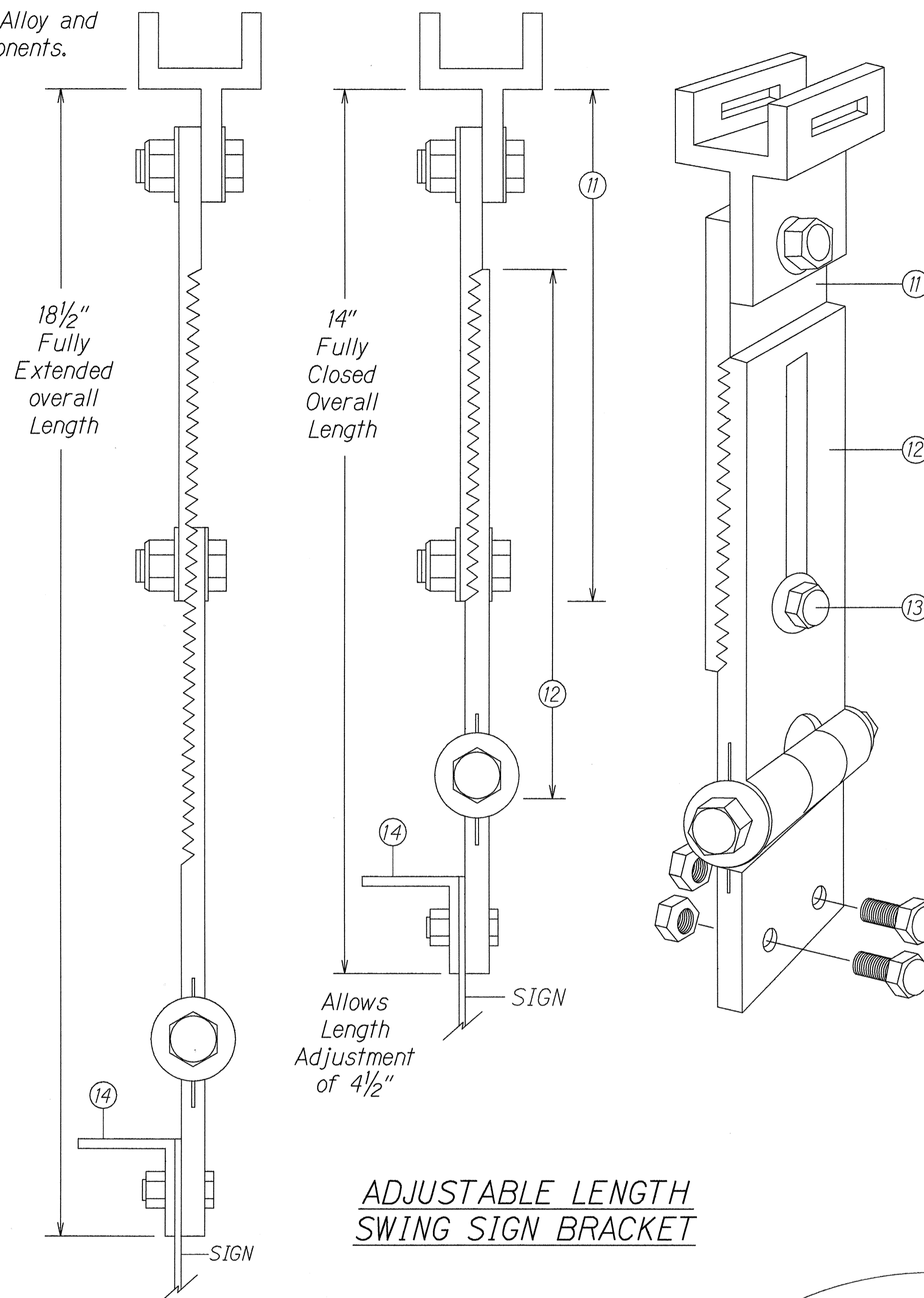
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-00	2001	11	19

All Aluminum 6061T6 Alloy and Stainless Steel Components.



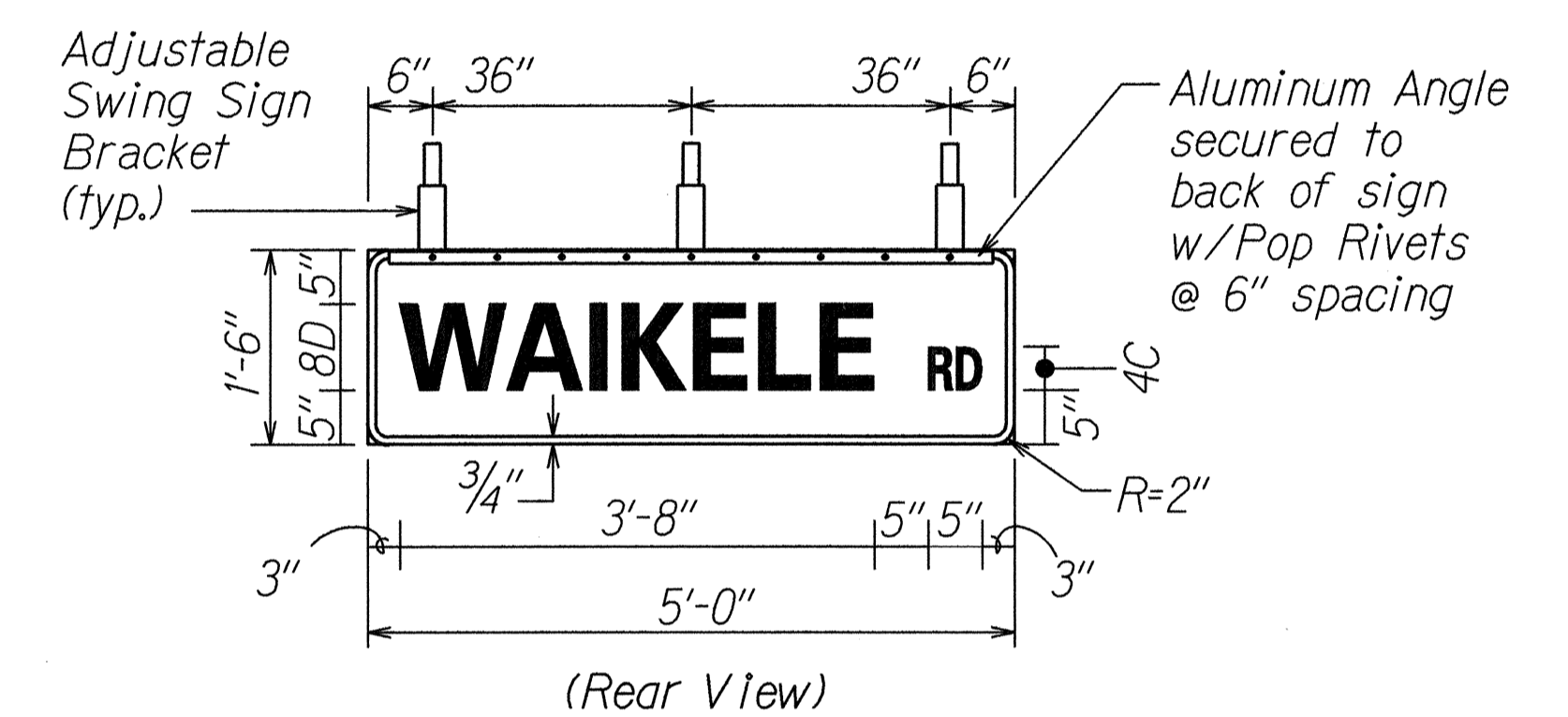
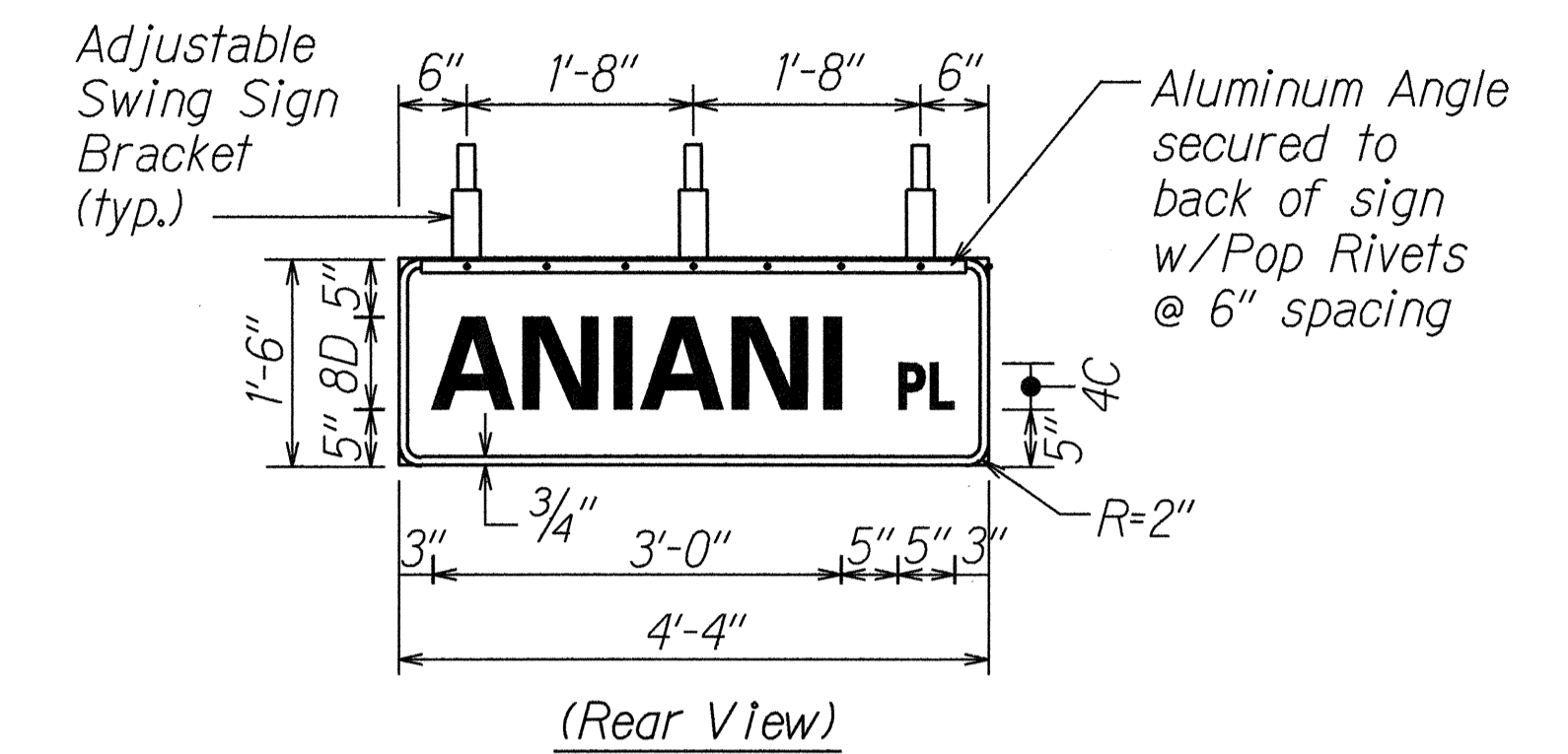
**FIXED LENGTH NON-ADJUSTABLE SWING SIGN BRACKET**

- ① Pivotal Upper Bracket
- ② 1 5/8" x 1/4" Slot for double strapping to electrolier mast arm. (M2G-34S(HD) .030" x 3/4" Heavy Duty Stainless Steel Strap with M2G-34B(HD) Buckle recommended.)
- ③ 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 electrolier mast arm.
- ④ 6" Overall drop with Fixed Length Sign Bracket
- ⑤ Stainless Steel Dampener Spring (Removable)
- ⑥ Stainless Steel Hex Lock Nut with 1/16" Stainless Steel Washer
- ⑦ 1" O.D. Axle Housing
- ⑧ 1/2" - 13 x 4" Stainless Steel Hex Head Bolt with 1/16" Stainless Steel Washer
- ⑨ Oilite Bushing
- ⑩ Sign Mounting Sets, consisting of two each 5/16" - 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.

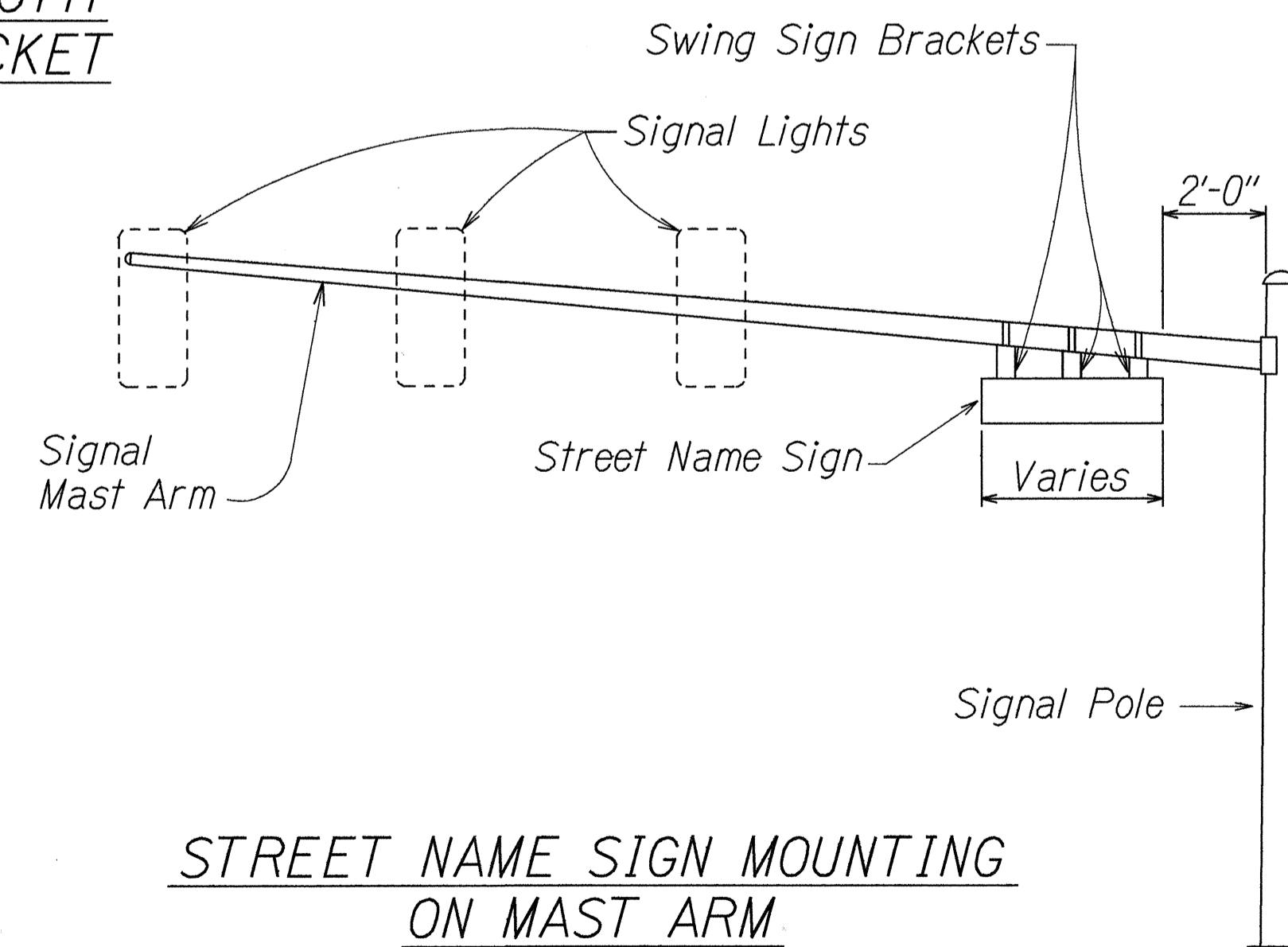


**ADJUSTABLE LENGTH SWING SIGN BRACKET**

- ⑪ 8 1/4" overall length Upper Adjustable Sign Bracket section
- ⑫ 9" overall length Lower Adjustable Sign Bracket section, including Axle Housing (8" overall length to top of Axle Housing)
- ⑬ 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.
- ⑭ 1/4" x 1 1/4" x 1/8" Aluminum Angle



**PANEL & SWING BRACKET LAYOUT FOR STREET NAME SIGN**



**STREET NAME SIGN MOUNTING ON MAST ARM**

Note: Dimensions may vary slightly.

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
QUANTITIES BY	
NOTED BY	
REVISIONS	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SIGN MOUNTING DETAIL**

FARRINGTON HIGHWAY IMPROVEMENT  
Waikale Road to Aniani Place  
Project No. 7101A-01-00

Not to Scale Date: Sept, 2000

SHEET No. 11 OF 11 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-01-00	2001	12	19

**CONSTRUCTION SIGN SUMMARY**

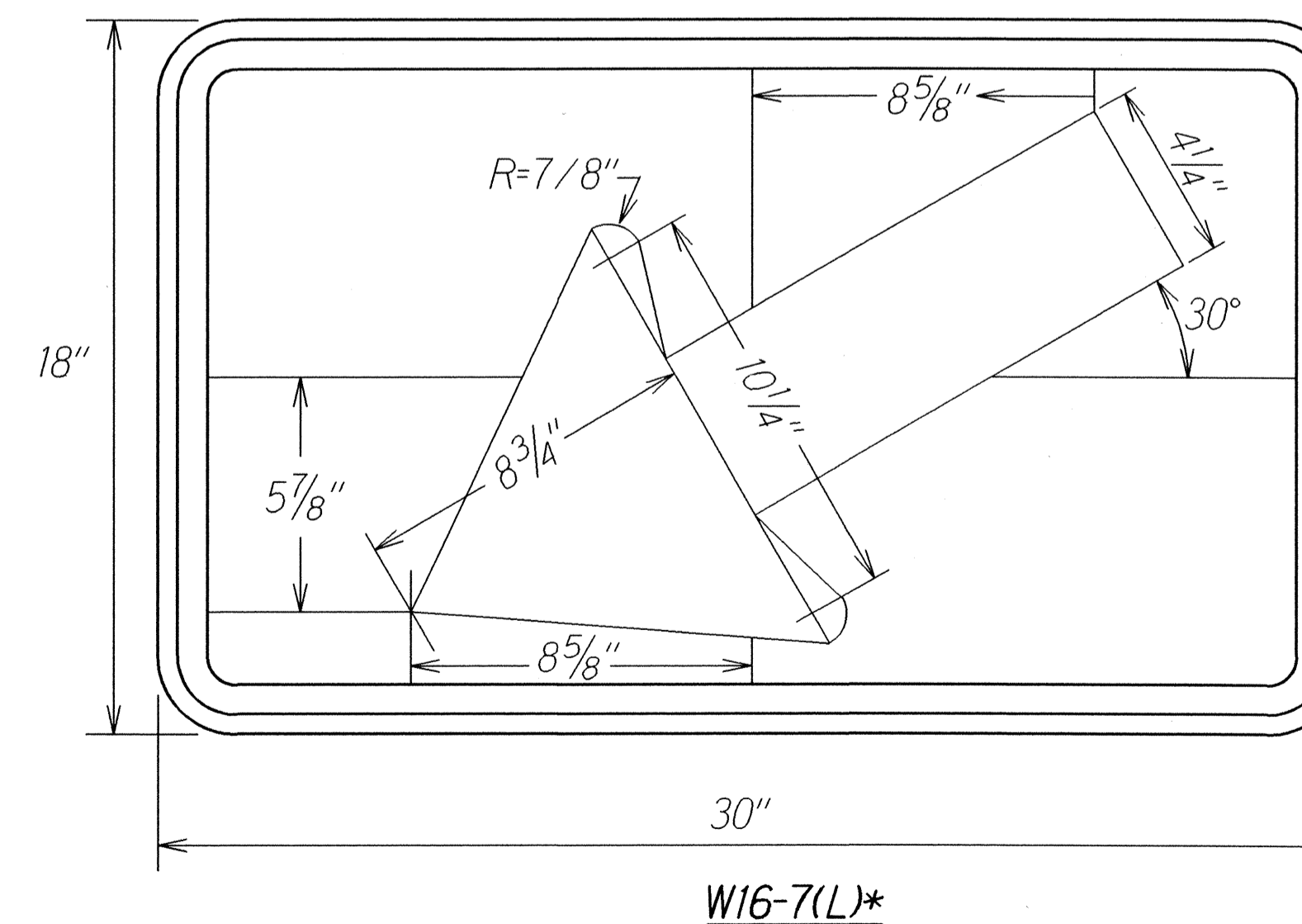
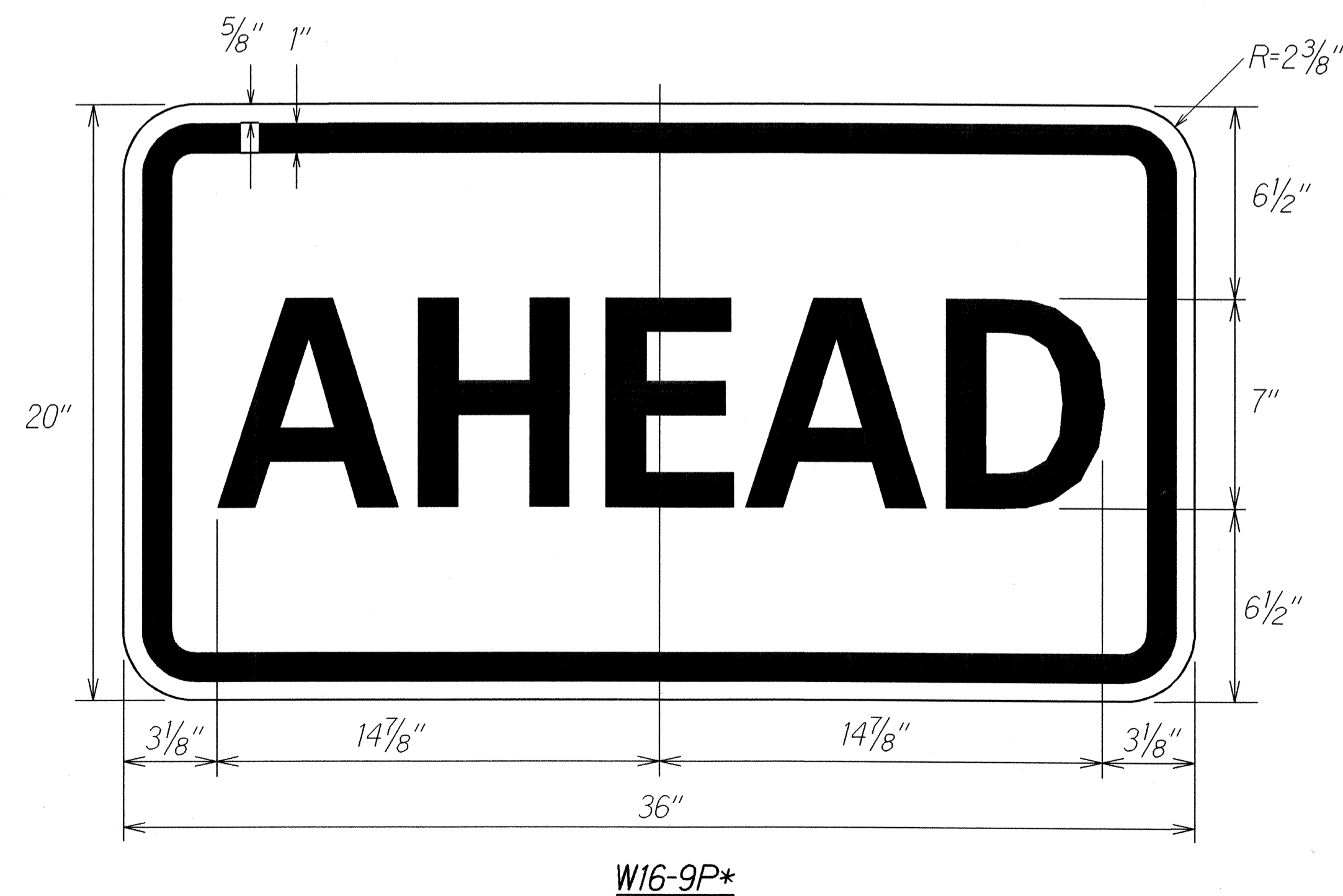
SIGN NO.	LOCATION	MESSAGE	W/POSTS	W/O POST
CW20-1Ad	STA. 83+00± LT. & RT.	ROAD WORK AHEAD	2	
CG20-2A	STA. 83+00± LT.	END ROAD WORK	2	
CG20-2A	STA. 101+40± LT. & RT.	END ROAD WORK	2	
CW20-1Ad	STA. 101+00± LT.	ROAD WORK AHEAD	2	
TOTAL			8	

**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
R1-1	STOP	1			
R3-1	NO RIGHT TURN SYMBOL	1	2		
R5-1	DO NOT ENTER		1		
R17-1	↶ ON LEFT ARROW ONLY				1
R17-1a	TRUCKS NO U TURN		1		
R17-3	↶ ON LEFT ARROW ONLY NO U TURN	1			
S1-1*	ADVANCE SCHOOL	3	1		
S2-1*	SCHOOL CROSSING	2			
W16-7(L)*	↶ SCHOOL CROSSING SUPPLEMENT		2		
W16-9P*	"AHEAD" ADVANCE SCHOOL SUPPLEMENT		4		
TOTAL		8	12		1

**PAVEMENT MARKING SUMMARY**

DESCRIPTION	QUANTITY
<b>PAVEMENT MARKERS</b>	
TYPE A _____	104 EA.
TYPE C _____	103 EA.
TYPE D _____	4 EA.
TYPE H _____	31 EA.
<b>TAPE - TYPE I OR THERMOPLASTIC EXTRUSION</b>	
4-INCH PAVEMENT STRIPE (WHITE) _____	140 L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	520 L.F.
DOUBLE 4-INCH PAVEMENT STRIPE (YELLOW) _____	60 L.F.
<b>TAPE - TYPE II OR THERMOPLASTIC EXTRUSION</b>	
4-INCH PAVEMENT STRIPE (WHITE) _____	1,245 L.F.
4-INCH PAVEMENT STRIPE (YELLOW) _____	1,220 L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	470 L.F.
12-INCH PAVEMENT STRIPE (WHITE) _____	195 L.F.
<b>TAPE - TYPE III OR THERMOPLASTIC EXTRUSION</b>	
4-INCH PAVEMENT STRIPE (WHITE) _____	190 L.F.
12-INCH PAVEMENT STRIPE (WHITE) _____	145 L.F.
CROSSWALK MARKINGS _____	12 LANES
PAVEMENT ARROW _____	6 EA.



**\*NOTE:**

COLORS: LEGEND - BLACK  
BACKGROUND - FLUORESCENT YELLOW-GREEN

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

9/17/01	Revised all summaries and added sign details.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>TRAFFIC SUMMARIES</b> <b>FARRINGTON HIGHWAY IMPROVEMENT</b> <b>Waikale Road to Aniani Place</b> <b>Project No. 7101-01-00</b> Date: Sept., 2000	

SHEET No. T4 OF 11 SHEETS