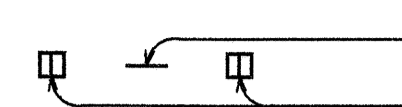




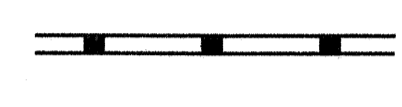
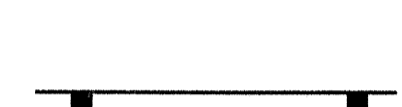

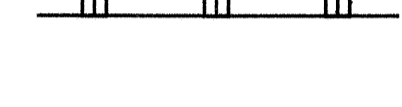

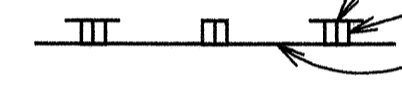



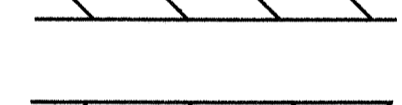





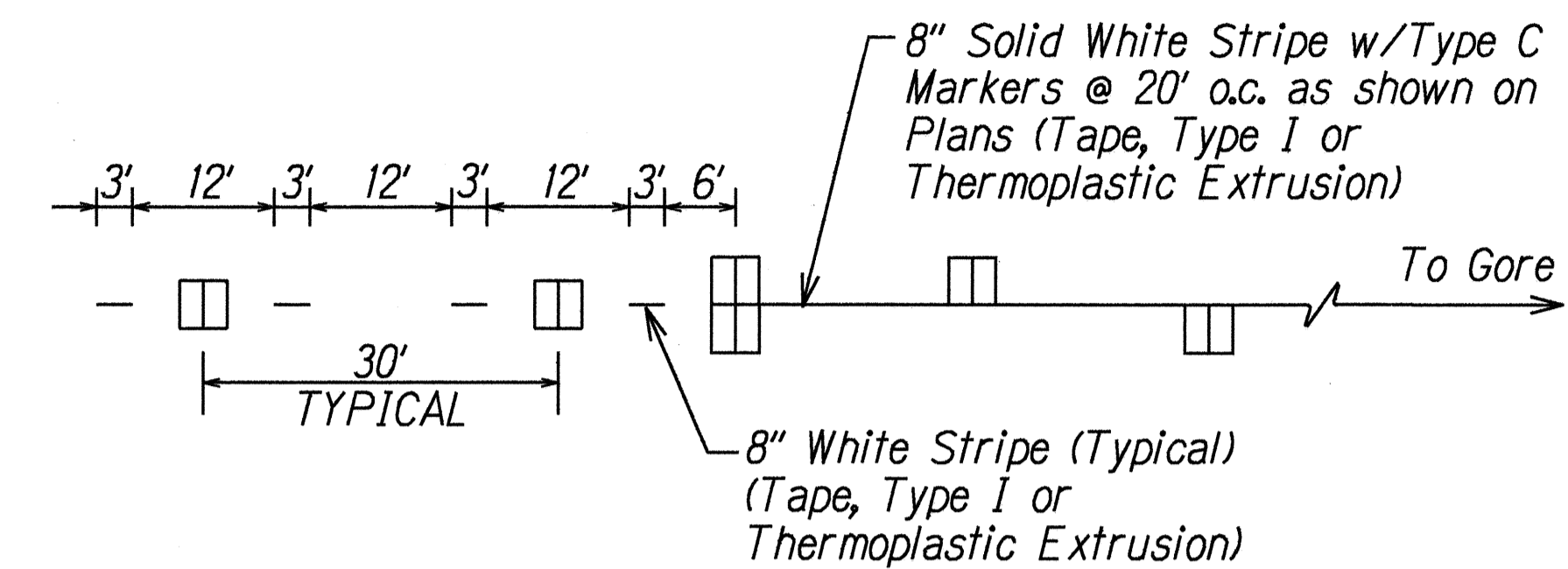
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-083-1(44)	2000	7	18

**LEGEND**

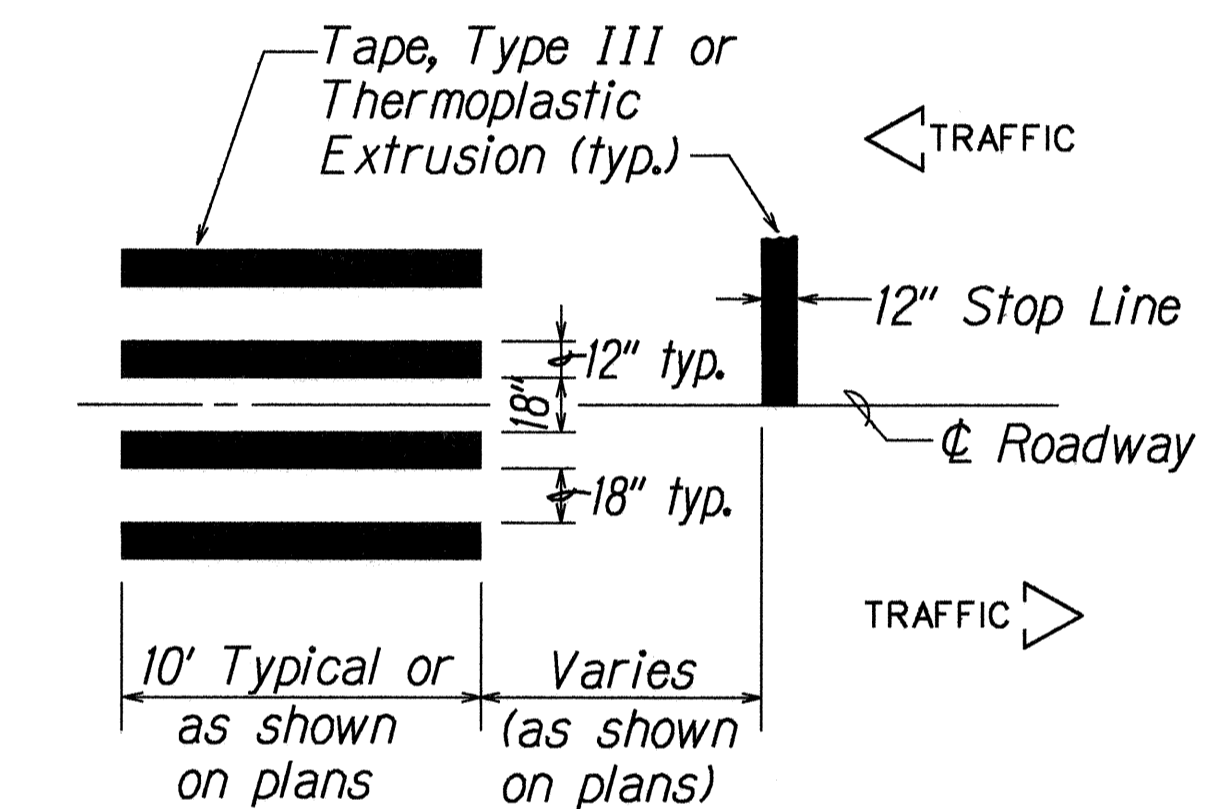
-  4 each Type A Raised Pavement Markers  
Type C Raised Pavement Markers @ 40'-0" o.c.
-  4 each Type J Raised Pavement Markers  
Type D Raised Pavement Markers @ 40'-0" o.c.
-  8" White Stripe with Type C Raised Pavement Markers @ 20'-0" o.c. (Tape, Type I or Thermoplastic Extrusion)
-  4" Double Solid 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)
-  STOP 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**

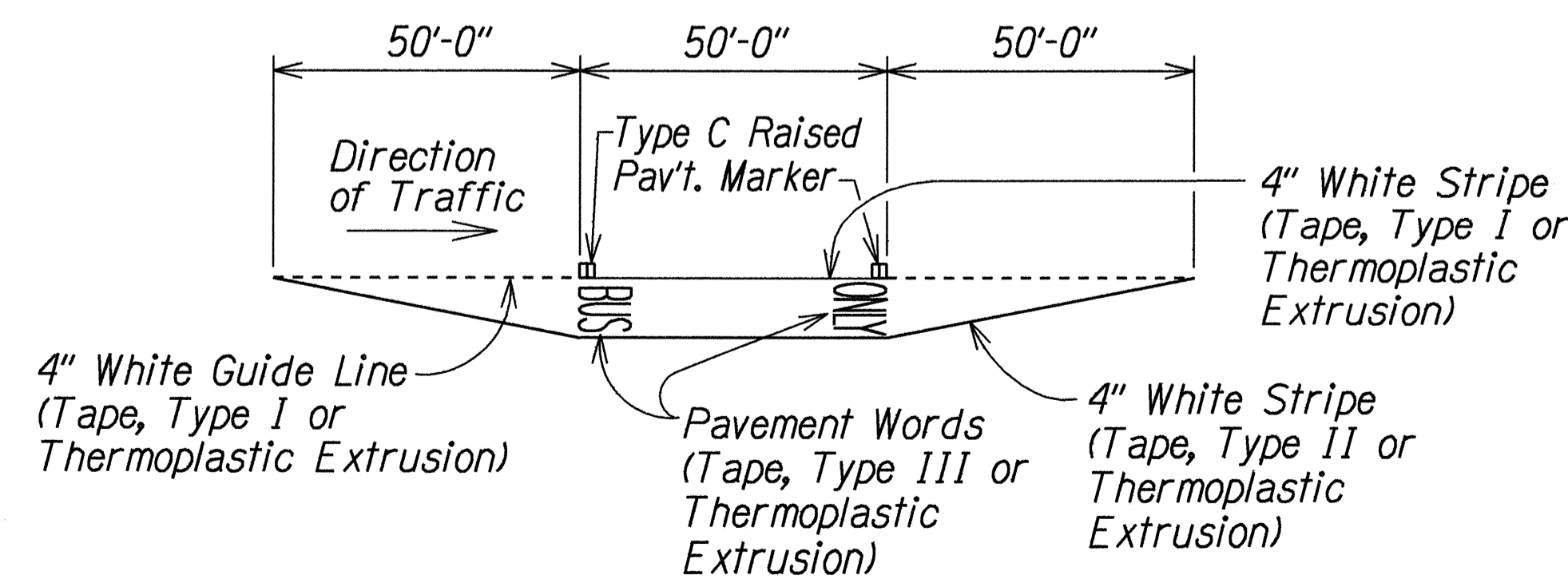
1. Layout of pavement markings and striping shall be done by the Contractor and approved by the Engineer prior to any installation work.
2. Existing pavement markings and striping not incorporated in the final traffic pattern shall be removed as directed by the Engineer. The removal of the existing pavement markings shall not be paid for separately but shall be considered 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 or directed by the Engineer shall not be paid for and shall be considered 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. Removal of Existing Delineators and Posts as directed by the Engineer shall be considered incidental to the various signing items.
10. 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.
11. Backing for all new regulatory and warning signs shall not be spliced.
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



**CROSSWALK STRIPING DETAIL**  
Not to Scale

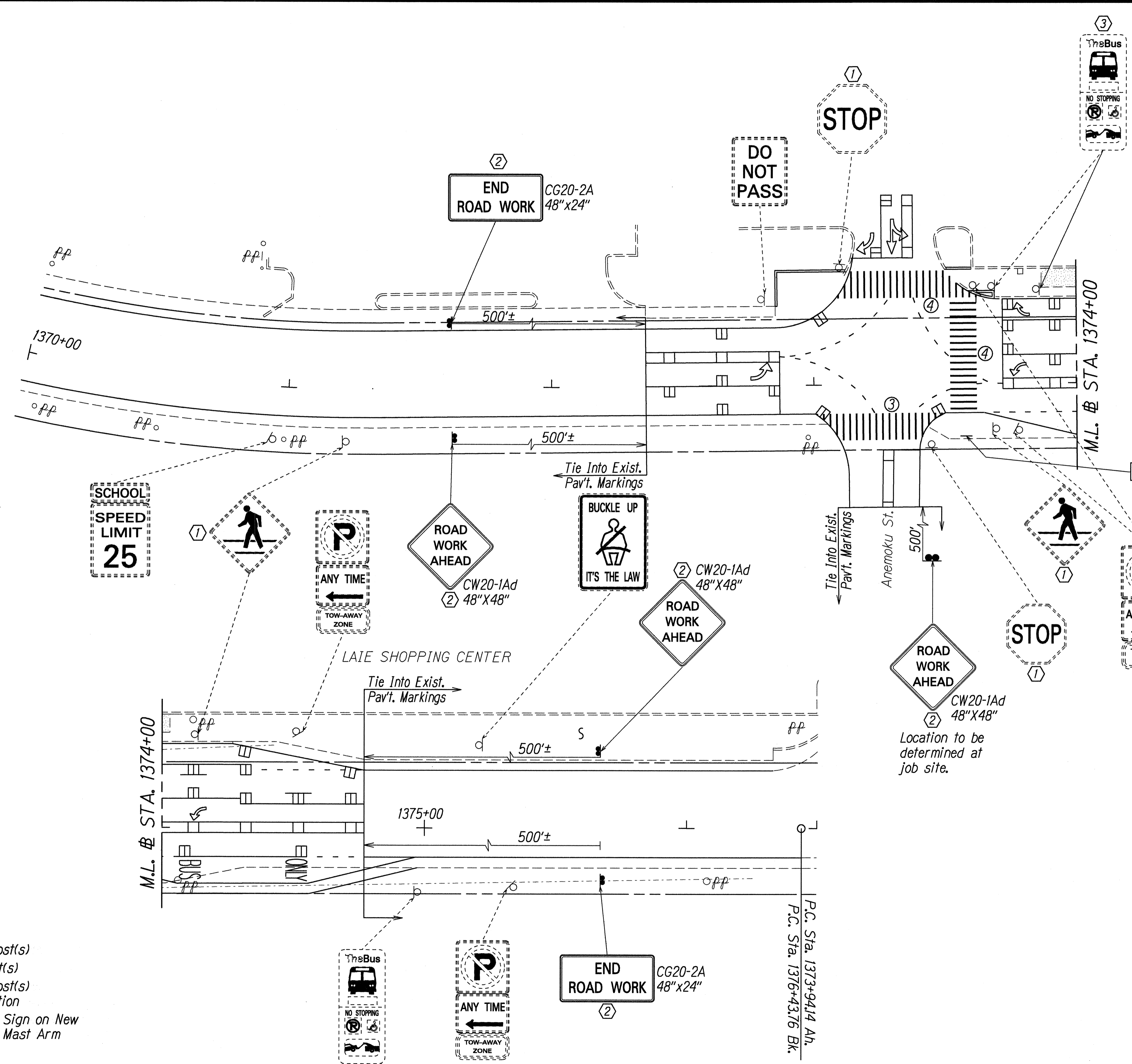


**TYPICAL BUS BAY STRIPING**  
Not to Scale

DATE	_____
DESIGNED BY	Richard Alana
CHECKED BY	Richard Alana
QUANTITIES BY	Richard Alana
NOTED BY	Richard Alana
ORIGINAL PLAN	_____
NO. SHEETS	7
NO. SHEETS	7

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**PAVEMENT MARKING**  
**LEGEND, DETAILS & NOTES**  
KAMEHAMEHA HIGHWAY  
Installation of Traffic Signals  
at Anemoku Street  
Federal Aid Project No. STP-083-1(44)  
Scale: As Noted Date: Aug., 1999  
SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-083-1(44)	2000	8	18



- KEY:**
- ① Remove Exist. Sign & Post(s)
  - ② Install New Sign w/Post(s)
  - ③ Remove Exist. Sign & Post(s) and Install at New Location
  - ④ Install New Street Name Sign on New Traffic Signal Standard Mast Arm

ORIGINAL PLAN	DATE	
DESIGNED BY		
CHECKED BY		
NOTED BY		
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**PAVEMENT MARKING &  
SIGNING PLAN**

KAMEHAMEHA HIGHWAY  
Installation of Traffic Signals  
at Anemoku Street

Federal Aid Project No. STP-083-1(44)  
Scale: 1"=20' Date: Aug., 1999

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-083-1(44)	2000	9	18

PAVEMENT MARKING SUMMARY	
DESCRIPTION	QUANTITY
PAVEMENT MARKERS	
TYPE A _____	11 EA.
TYPE C _____	28 EA.
TYPE D _____	16 EA.
TAPE - TYPE I OR THERMOPLASTIC EXTRUSION	
4-INCH PAVEMENT STRIPE (WHITE) _____	250 L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	160 L.F.
DOUBLE 4-INCH PAVEMENT STRIPE (YELLOW) _____	210 L.F.
TAPE - TYPE II OR THERMOPLASTIC EXTRUSION	
4-INCH PAVEMENT STRIPE (WHITE) _____	505 L.F.
TAPE - TYPE III OR THERMOPLASTIC EXTRUSION	
4-INCH PAVEMENT STRIPE (WHITE) _____	200 L.F.
12-INCH PAVEMENT STRIPE (WHITE) _____	110 L.F.
CROSSWALK MARKINGS _____	11 LANES
PAVEMENT ARROW _____	6 EA.
PAVEMENT WORD _____	2 EA.

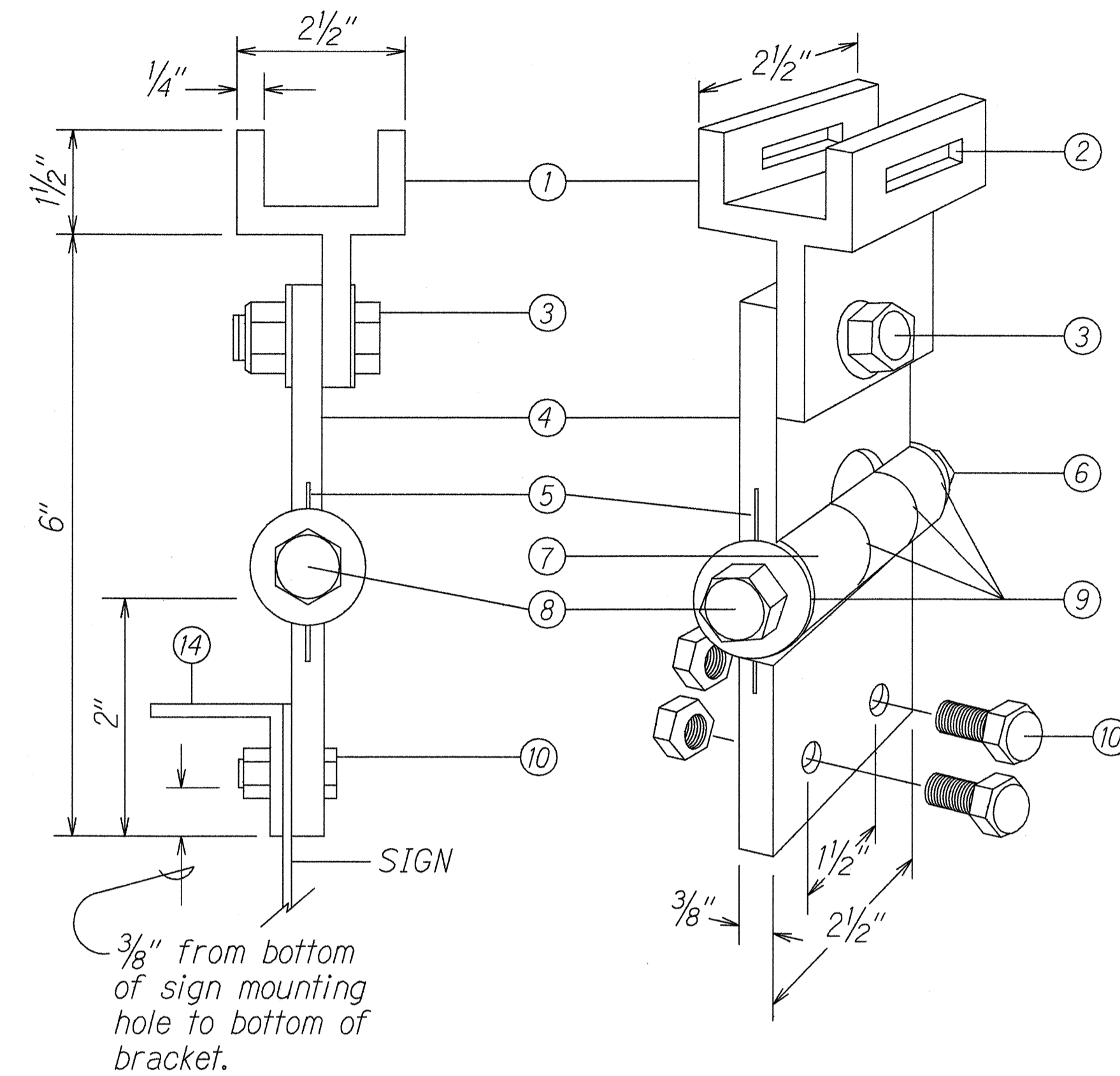
CONSTRUCTION SIGN SUMMARY				
SIGN NO.	LOCATION	MESSAGE	W/POSTS	W/O POST
CW20-1Ad	# Sta. 1367+36± Rt.	ROAD WORK AHEAD	1	
CG20-2A	# Sta. 1367+36± Lt.	END ROAD WORK	1	
CW20-1Ad	# Sta. 1379+77± Lt.	ROAD WORK AHEAD	1	
CG20-2A	# Sta. 1379+77 Rt.	END ROAD WORK	1	
CW20-1Ad	Anemoku Street - Location to be determined	ROAD WORK AHEAD	1	
TOTAL			5	

SURVEY PLOTTED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 DRAWN BY M. Tadauji \_\_\_\_\_  
 DESIGNED BY Richard Akana \_\_\_\_\_  
 QUANTITIES BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 ORIGINAL PLAN \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 10/2/99  
 NC-2001/5/01

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION  
**TRAFFIC SUMMARY**  
 KAMEHAMEHA HIGHWAY  
 Installation of Traffic Signals  
 at Anemoku Street  
 Federal Aid Project No. STP-083-1(44)  
 Date: Aug., 1999  
 SHEET No. 1 OF 1 SHEETS

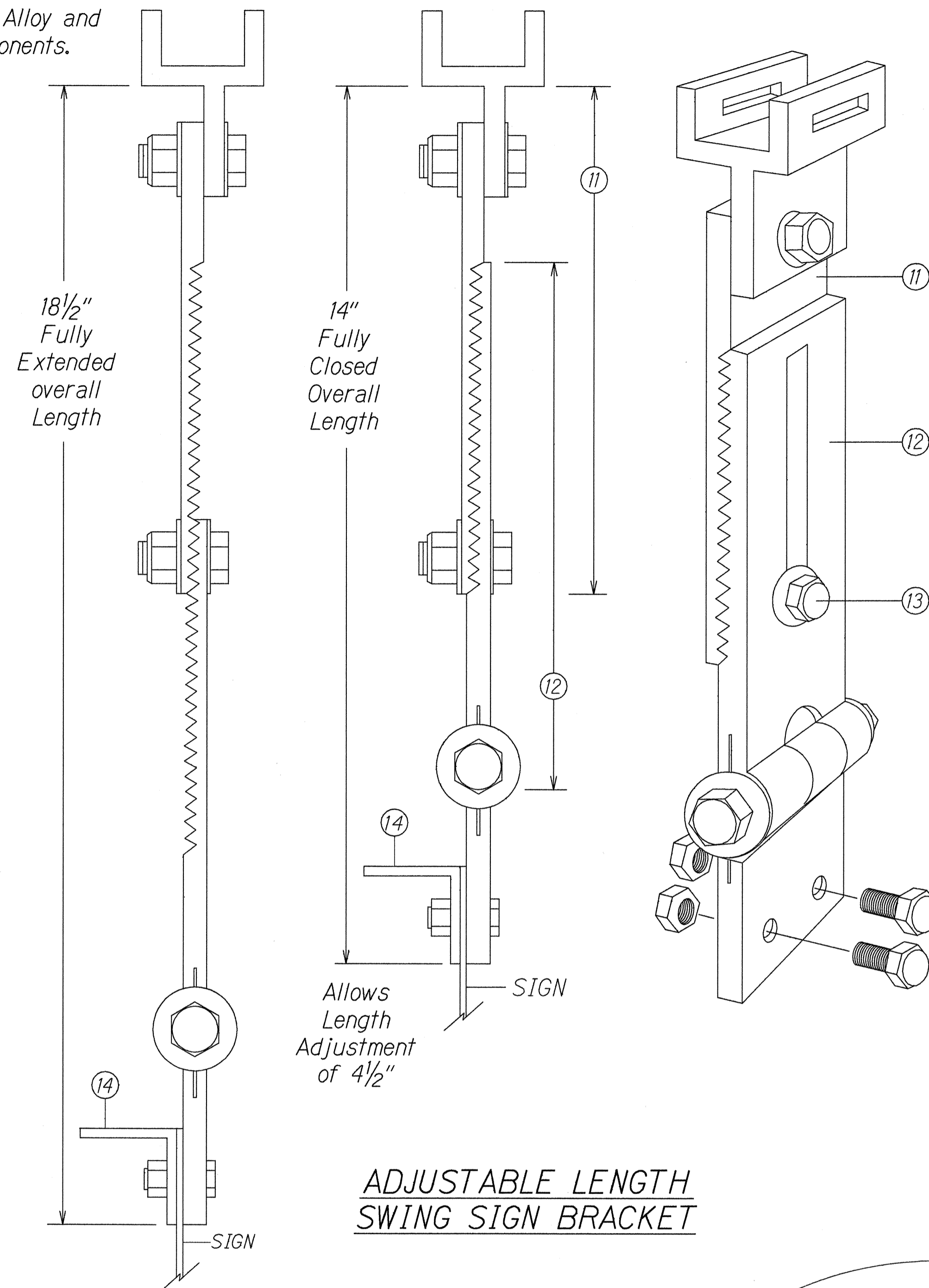
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-083-1(44)	2000	10	18

All Aluminum 6061T6 Alloy and Stainless Steel Components.



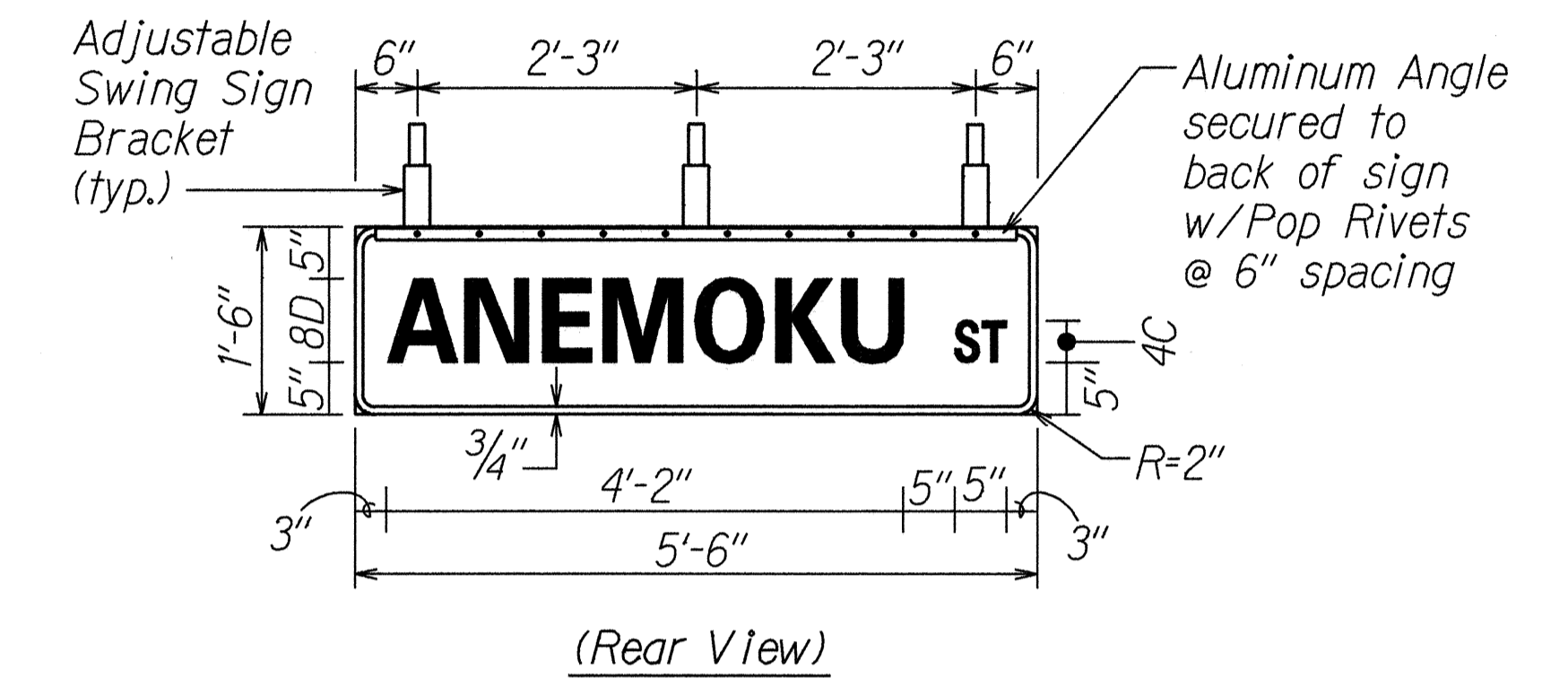
**FIXED LENGTH NON-ADJUSTABLE SWING SIGN BRACKET**

- 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 1/2" centers provide positive lock sign mounting to bracket.

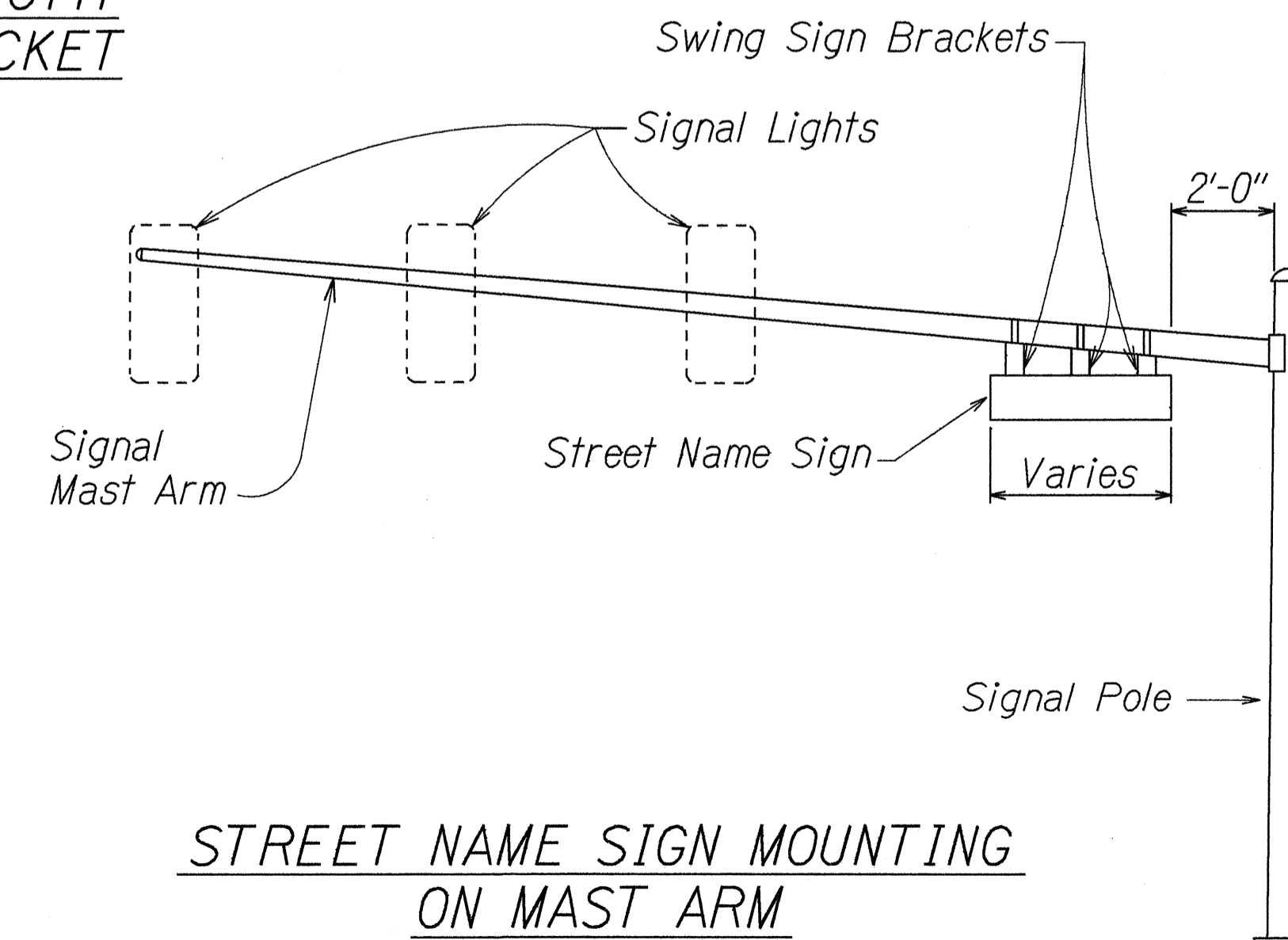


**ADJUSTABLE LENGTH SWING SIGN BRACKET**

- 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 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.

DATE	Y
DESIGNED BY	Richard A. Hana
CHECKED BY	Richard A. Hana
QUANTITIES BY	
NOTED BY	
ORIGINAL PLAN	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SIGN MOUNTING DETAIL**

**KAMEHAMEHA HIGHWAY**  
**Installation of Traffic Signals**  
**at Anemoku Street**

Federal Aid Project No. STP-083-1(44)  
Not to Scale Date: Aug, 1999

SHEET No. 1 OF 1 SHEETS