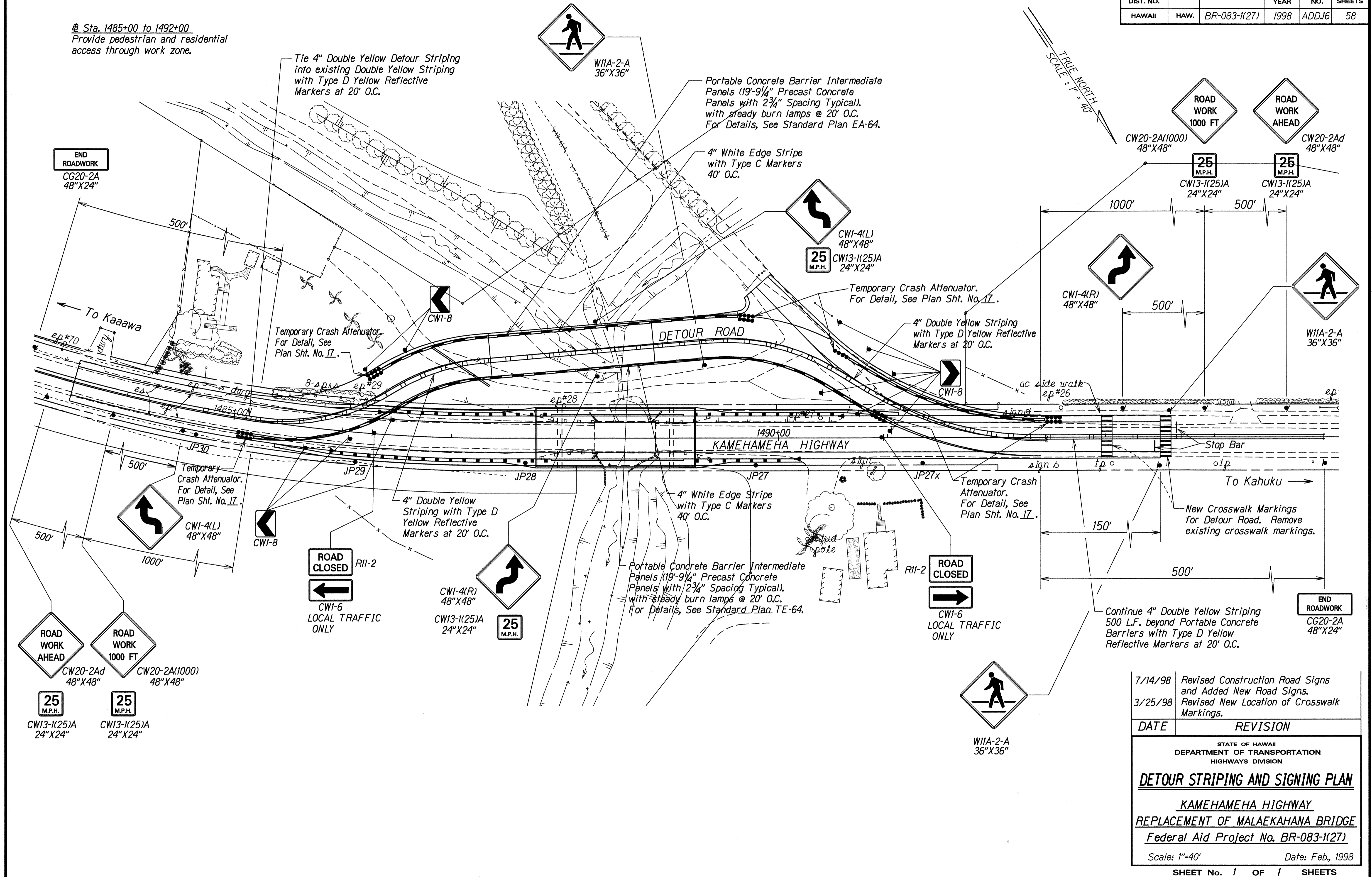


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(27)	1998	ADD.16	58

# Sta. 1485+00 to 1492+00  
Provide pedestrian and residential access through work zone.



DATE	11/19/98
SURVEY PLOTTED BY	DATE
DRAWN BY G. Anburaco	
DESIGNED BY E. Williams, P. Farnsworth	
CHECKED BY M. Williams	
APPROVED BY	

DATE	REVISION
7/14/98	Revised Construction Road Signs and Added New Road Signs.
3/25/98	Revised New Location of Crosswalk Markings.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**DETOUR STRIPING AND SIGNING PLAN**

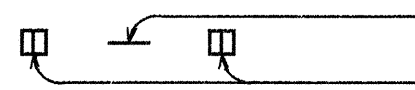
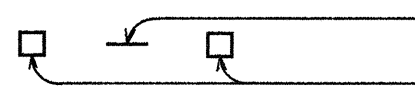












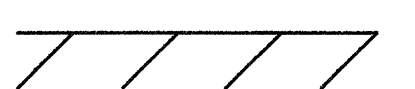



KAMEHAMEHA HIGHWAY  
REPLACEMENT OF MALAEKAHANA BRIDGE  
Federal Aid Project No. BR-083-1(27)

Scale: 1"=40' Date: Feb., 1998

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(27)	1998	C.O. 16S-1	58

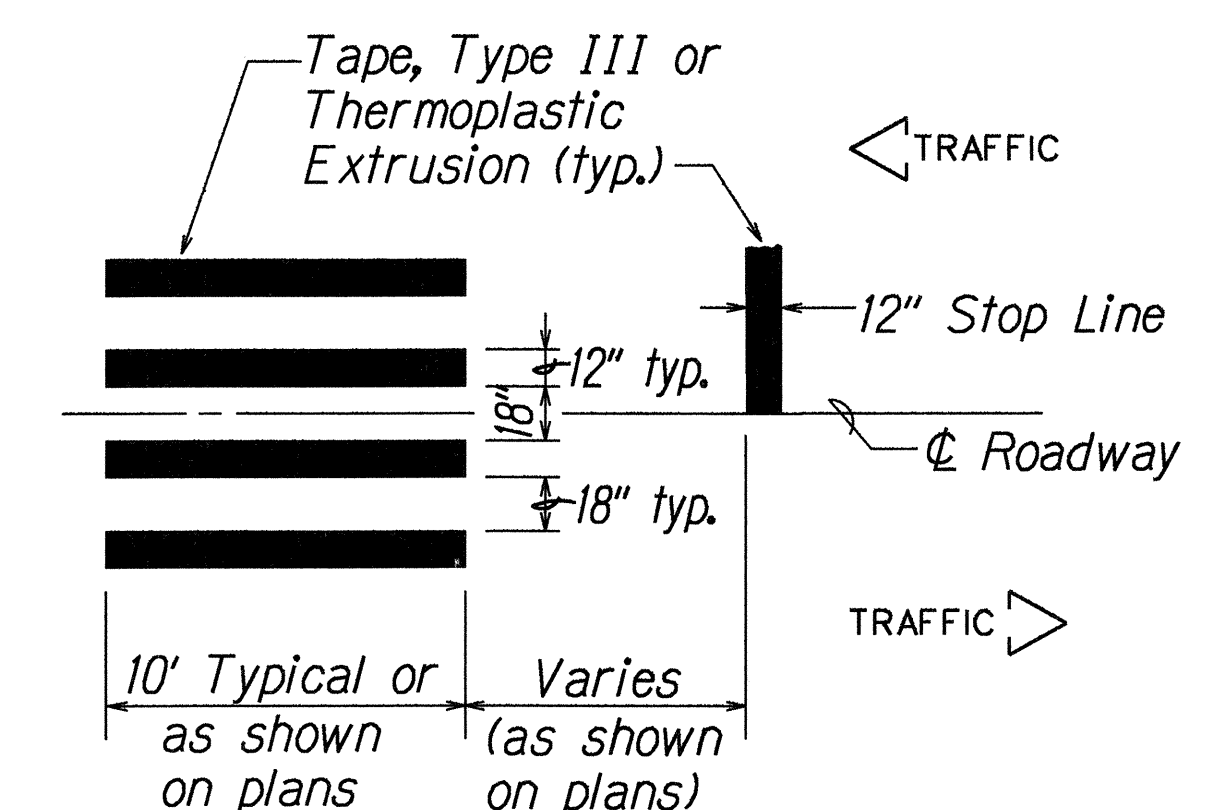
**LEGEND**

-  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)
-  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 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 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"
13. All new and relocated signs and markers installed on pipe post or light standard are to be mounted with band brackets and steel braces.
14. 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.
15. 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.
16. The Contractor shall install new Type II Object Marker on all utility poles that are within the State Highway Right-of-Way as directed by the Engineer. (12 Each)

17. The Contractor shall install RM-3 on posts at the locations shown on the plan. Each RM-3 shall be mounted such that they will not obstruct pedestrian and/or bicycle traffic. (Between guardrail post.)
18. The Contractor shall install the 8" Bicycle Crossover Edge Stripe as shown on the plan. This work will be paid under Item No. 629.1014 8-Inch Pavement Striping-Tape Type II or Thermoplastic Extrusion.



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

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTES BOOK	
QUANTITIES BY	
CHECKED BY	

8/22/98	Revised Legend: 4" or 8" White Edge Stripe with Type C Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion) to 8" White Edge Stripe with Type C Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
Date	Revision

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

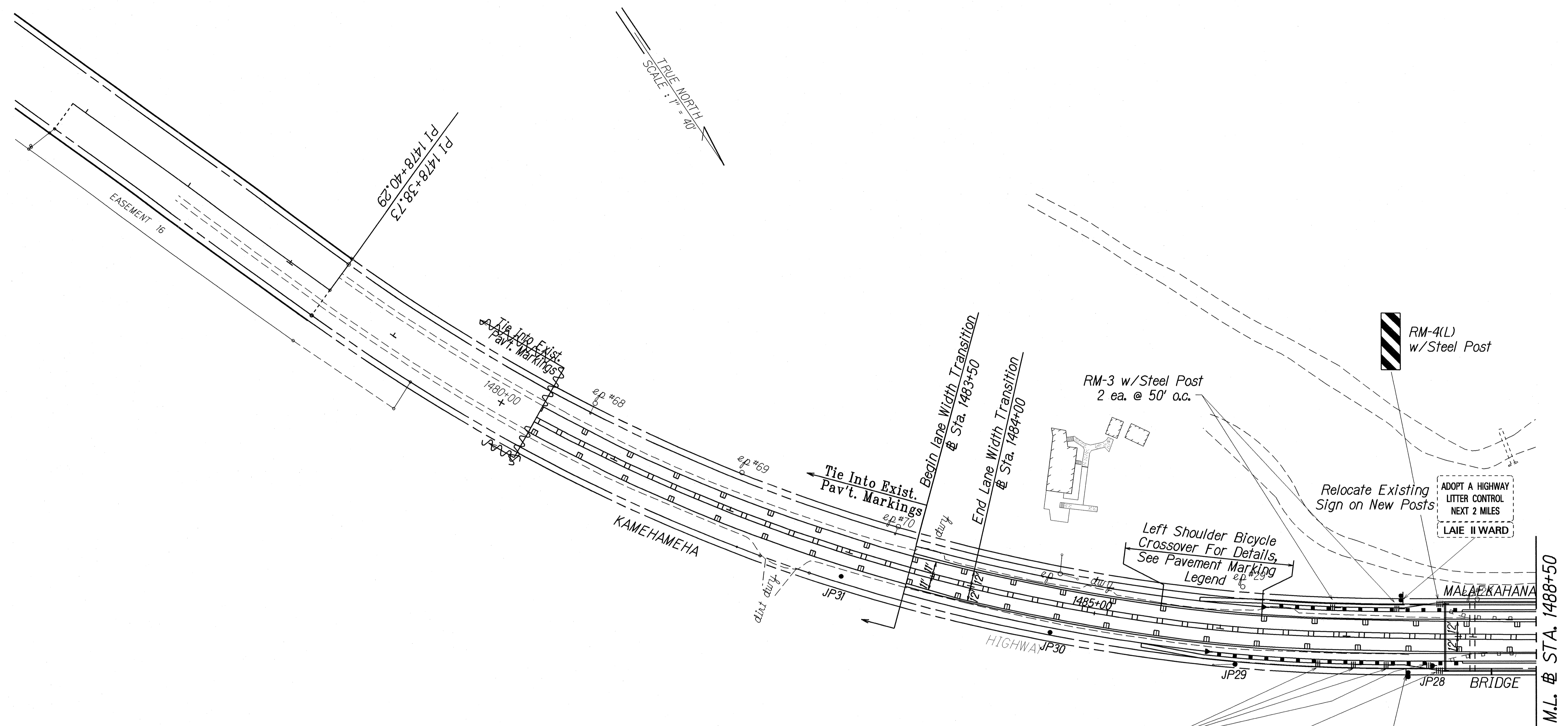
**PAVEMENT MARKING  
LEGEND, DETAIL & NOTES**

KAMEHAMEHA HIGHWAY  
Replacement of Malaekahana Bridge  
Project No. BR-083-1(27)

Scale: As Noted Date: July, 1998

SHEET No. T1 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(27)	1998	C.O. 16S-2	58



SURVEY PLOTTED BY	DATE	
DESIGNED BY		
DESIGNED BY		
QUANTITIES BY		
CHECKED BY		

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
8/22/98	Revised 4" Double Solid Yellow Stripes with Type H Raised Pavement Markings to 4" Double Solid Yellow Stripe w/ Type D Raised Pavement Markings. Add 8 each Type C Pavement Markings to Right ED Stripe.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**PAVEMENT MARKING &  
SIGNING PLAN**

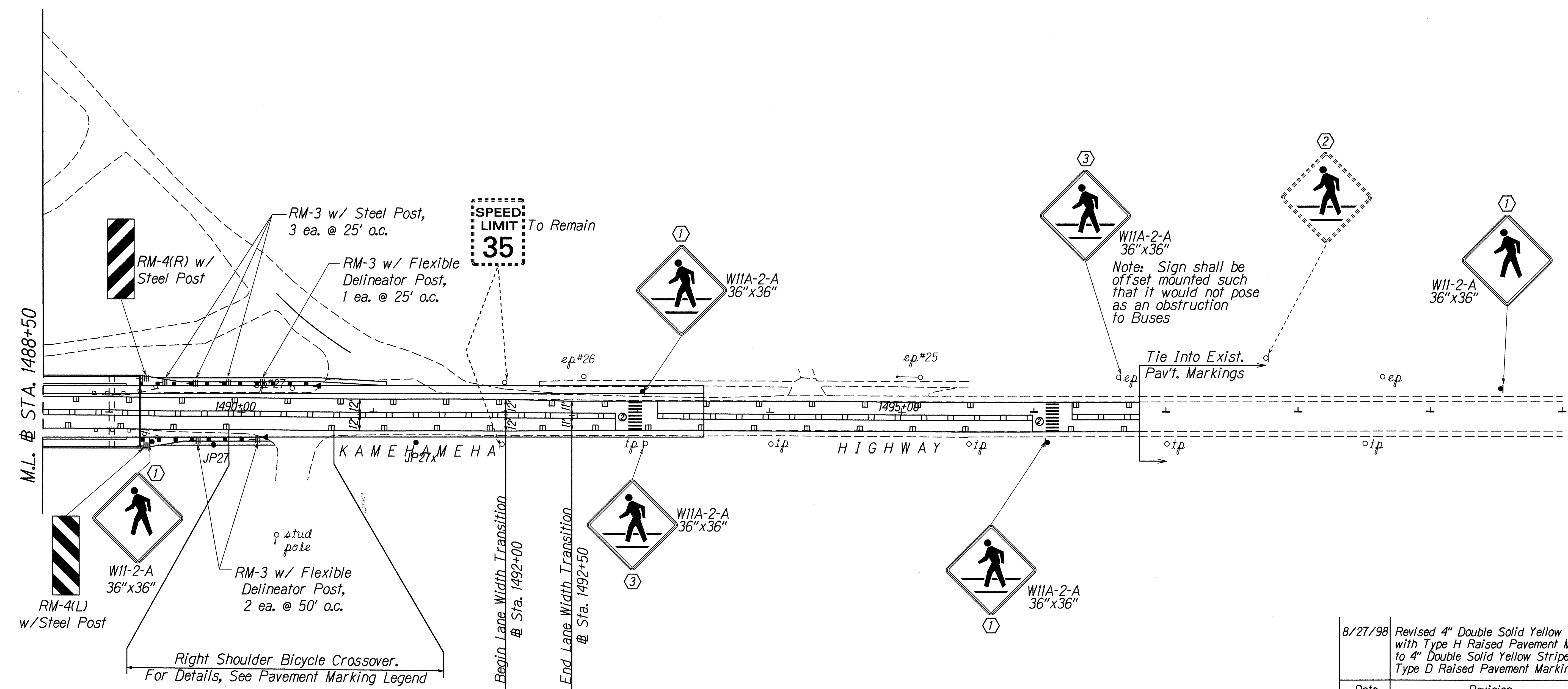
**KAMEHAMEHA HIGHWAY**  
**Replacement of Malaekahana Bridge**  
**Project No. BR-083-1(27)**

Scale: 1"=40'      Date: July, 1998

SHEET No. T2 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(27)	1998	C.O. 16S-3	58

- KEY:**
- ① Install New Sign(s) w/Post(s)
  - ② Remove Exist. Sign(s) w/ Post(s)
  - ③ Install New Sign



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

8/27/98	Revised 4" Double Solid Yellow Stripe with Type H Raised Pavement Markings to 4" Double Solid Yellow Stripe w/ Type D Raised Pavement Markings.
Date	Revision

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

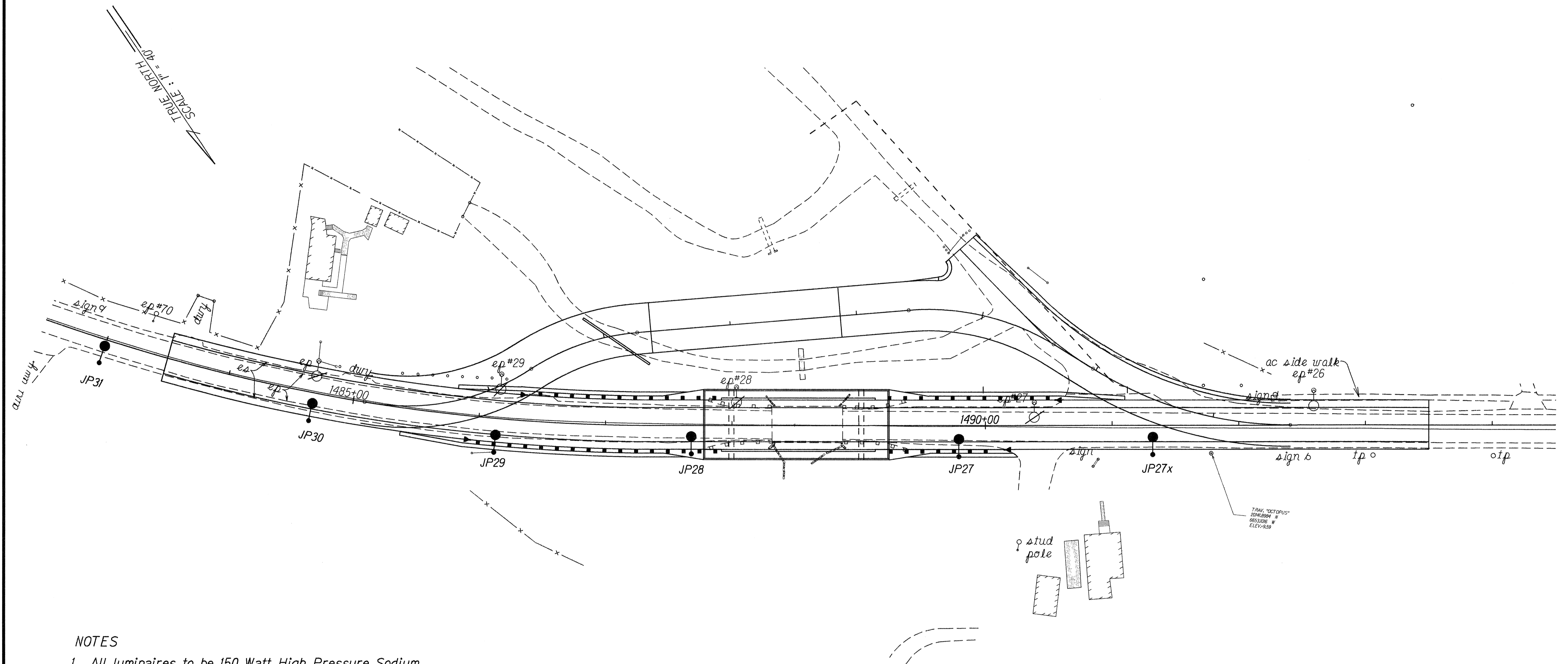
**PAVEMENT MARKING &  
SIGNING PLAN**

KAMEHAMEHA HIGHWAY  
Replacement of Malaekahana Bridge  
Project No. BR-083-1(27)

Scale: 1"=40' Date: July, 1998

SHEET No. 73 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(27)	1998	C.O. 16S-4	58



**NOTES**

1. All luminaires to be 150 Watt High Pressure Sodium.
2. The Contractor shall exercise extreme caution whenever construction is in close proximity to overhead lines and maintain a minimum 13'-0" clearance.
3. The Contractor shall be liable for any damages to Hawaiian Electric Co. facility and shall immediately report such damage to Hawaiian Electric's Trouble Dispatcher at 543-7874.
4. Should it become necessary any work required to relocate Hawaiian Electric Co. facilities shall be done by Hawaiian Electric Co. The Contractor shall be responsible for coordination.

**LEGEND:**

- Existing Street Light
- ⊗ Existing Street Light to be Removed
- New Street Light, 150W HPS, IEW Type II

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
CHECKED BY	
APPROVED BY	
DATE	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

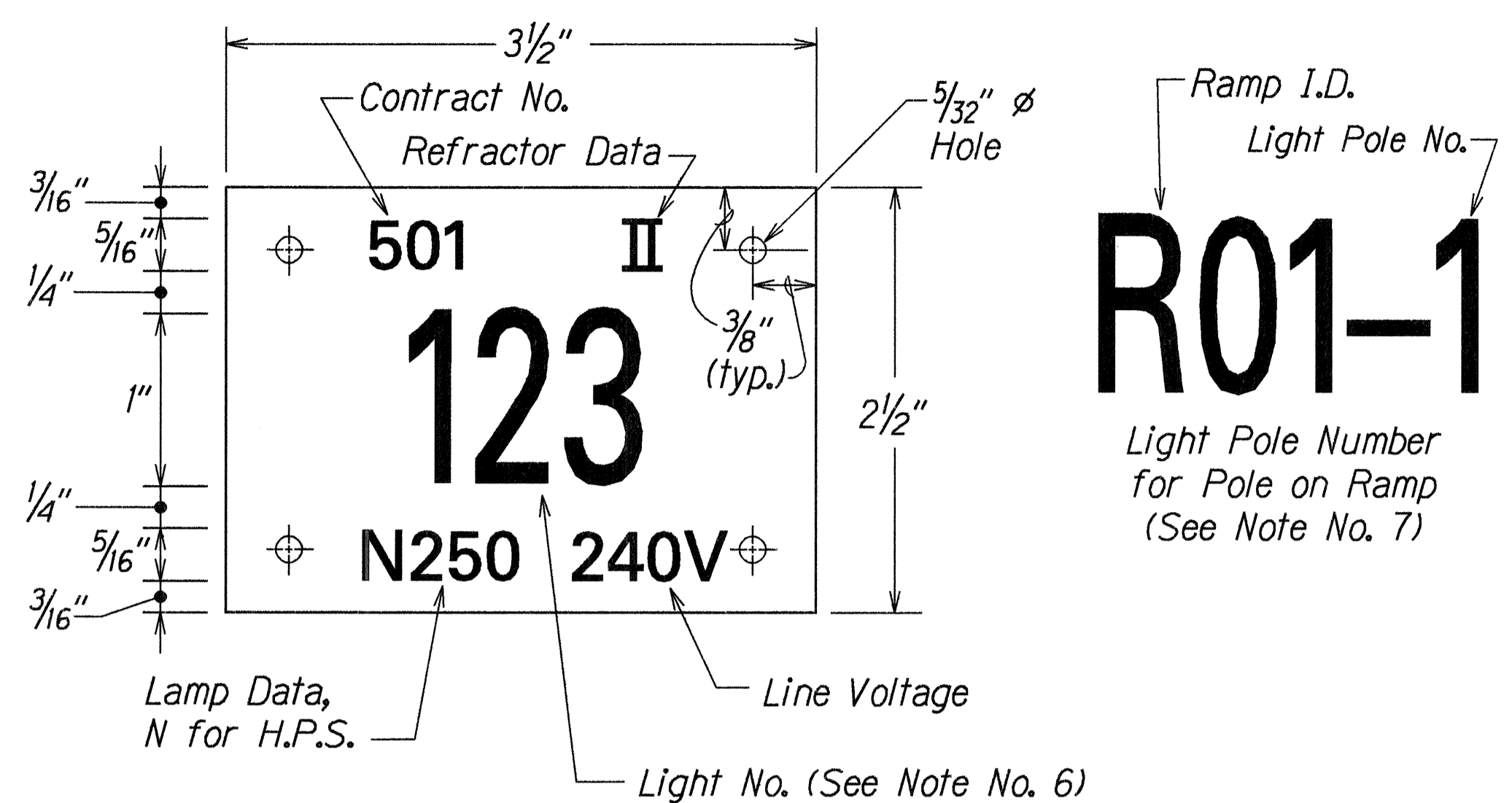
**HIGHWAY LIGHTING PLAN**

*KAMEHAMEHA HIGHWAY*  
*Replacement of Malaekahana Bridge*  
*Project No. BR-083-1(27)*

Scale: 1"=40'      Date: July, 1998

SHEET No. T4 OF 5 SHEETS

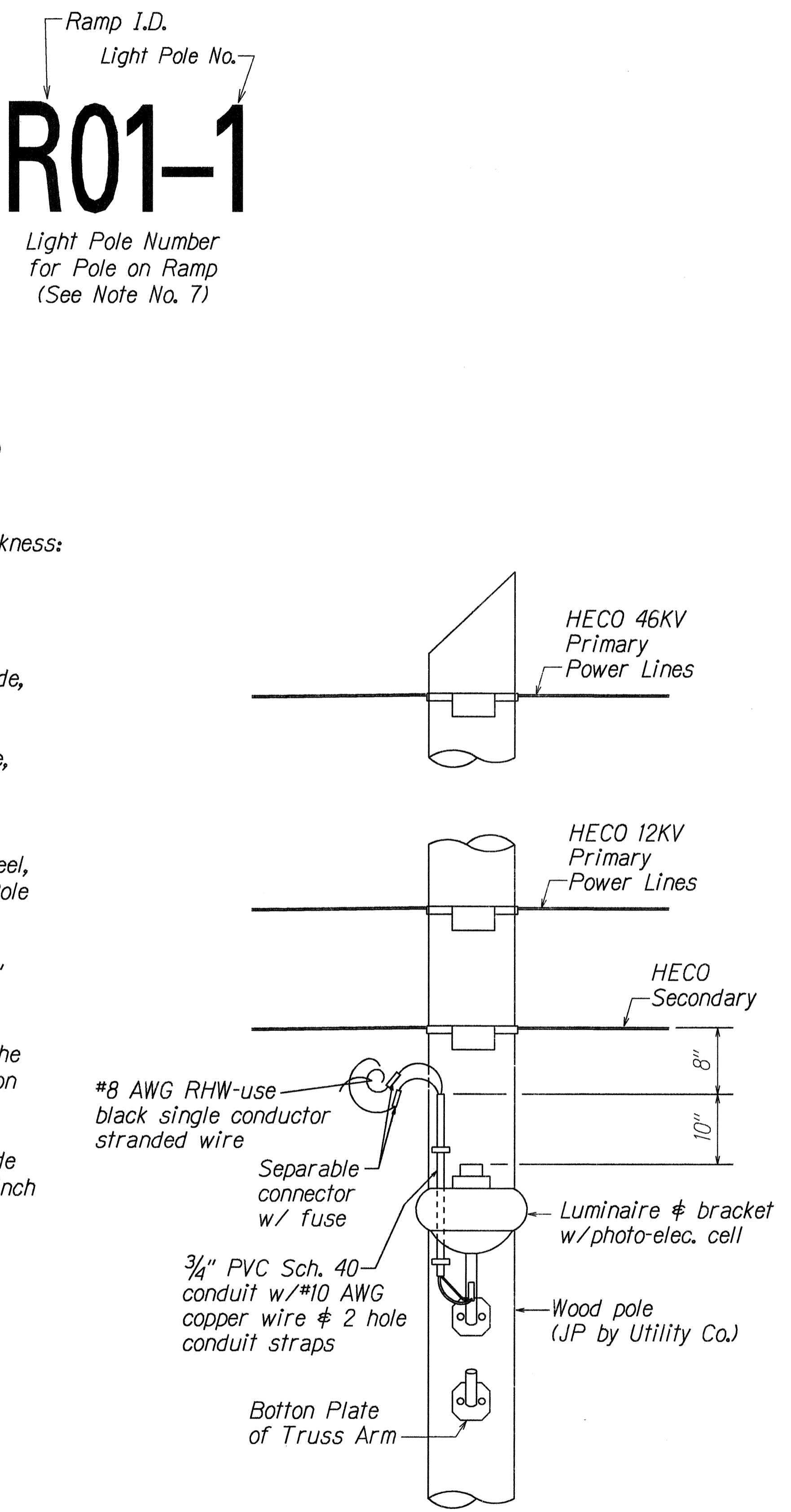
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(27)	1998	C.O. 16S-5	58



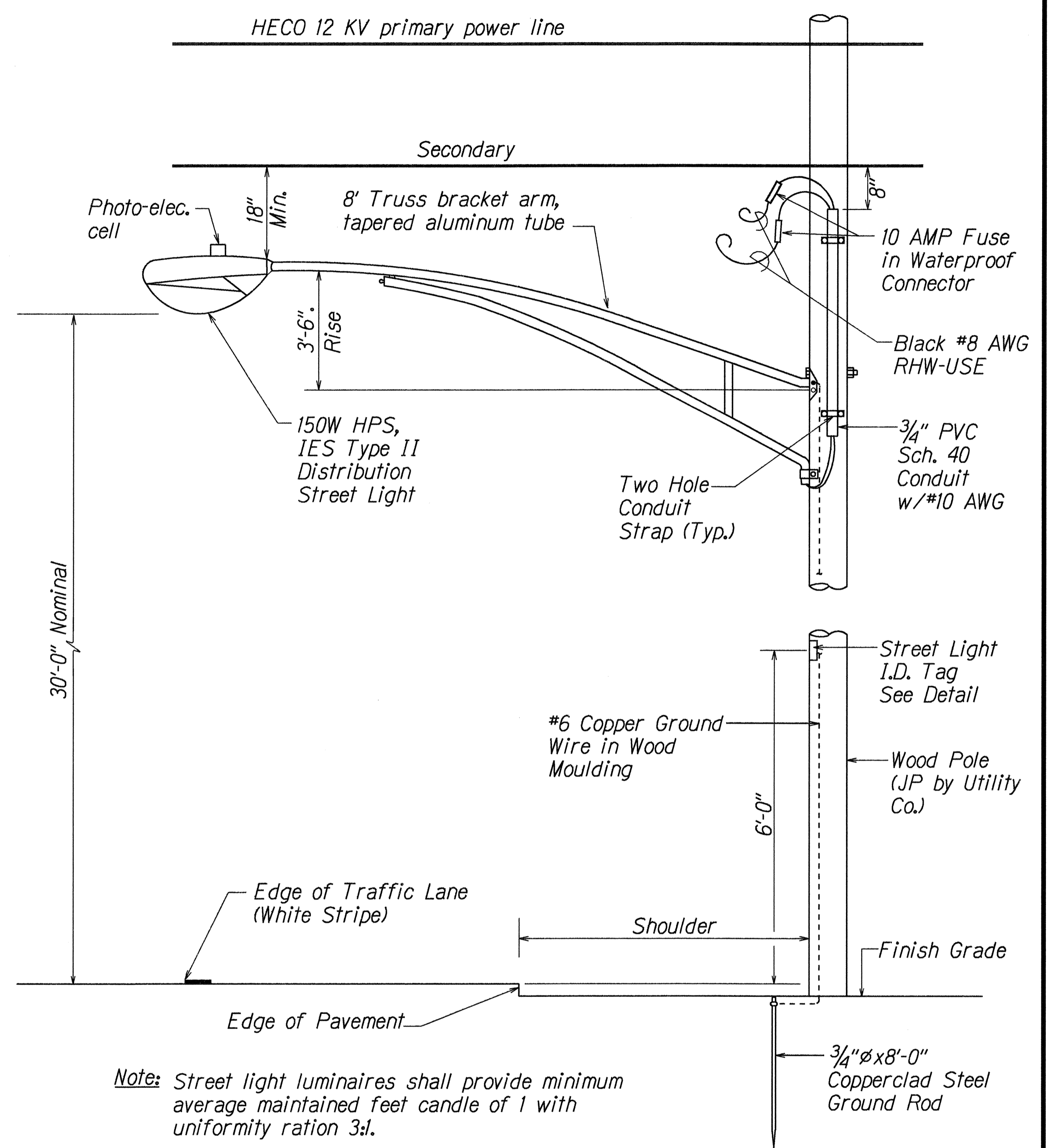
**NOTES:**

- Use 3 Ply Laminated Flexible Plastic Black-White-Black Thickness:  
0.010" - Black Cap Sheet  
0.052" - White Base Sheet  
0.010" - Black Base Sheet
- Light Number Size shall be 1-inch high and engraved 1/8" wide, White in color.
- Nomenclature Size shall be 5/16" high and engraved 1/32" wide, White in color (Contract No., Line Voltage, Lamp Data and Refractor Data as required).
- Attach to Aluminum and Steel Poles with No. 8 Stainless Steel, 1/2" long Drive Screws in 1/8" drilled hole. Attach to Wood Pole with 4D Aluminum Nails.
- Numbers are inscribed by cutting through "Black Cap Sheet" to expose "White Letters".
- Contract Number and Light Number shall be obtained from the State. Use an alphabet suffix to designate lights mounted on the same pole (e.g. 123A & 123B).
- For Light Poles installed on Ramp, assign Numbers to include Ramp I.D. and Light Number. Legend may be less than one inch in height.

**HIGHWAY LIGHT POLE TAG DETAIL**  
**UNMETERED SYSTEM**  
Not to Scale



**HECO SECONDARY CONNECTION DETAIL**  
Not to Scale



*Note: Street light luminaires shall provide minimum average maintained feet candle of 1 with uniformity ration 3:1.*

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**HIGHWAY LIGHTING DETAILS**

KAMEHAMEHA HIGHWAY  
Replacement of Malaekahana Bridge  
Project No. BR-083-1(27)

Not to Scale Date: July, 1998

SHEET No. T5 OF 5 SHEETS