

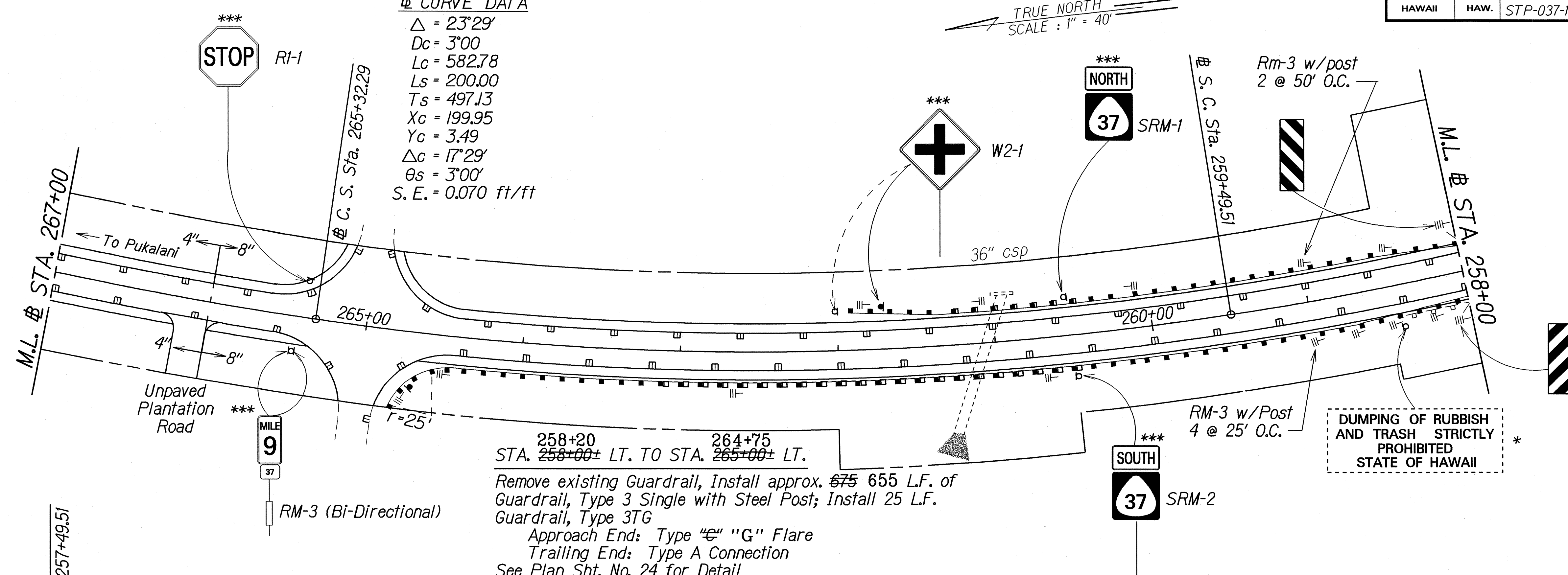


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-037-1(19)	1994	6	30

**CURVE DATA**

$\Delta = 23^{\circ}29'$   
 $Dc = 3'00''$   
 $Lc = 582.78$   
 $Ls = 200.00$   
 $Ts = 497.13$   
 $Xc = 199.95$   
 $Yc = 3.49$   
 $\Delta c = 17^{\circ}29'$   
 $\theta s = 3^{\circ}00''$   
 $S. E. = 0.070 \text{ ft/ft}$

TRUE NORTH  
SCALE: 1" = 40'



STA. 258+20 TO STA. 264+75  
 STA. 258+00± LT. TO STA. 265+00± LT.  
 Remove existing Guardrail, Install approx. 675 L.F. of Guardrail, Type 3 Single with Steel Post; Install 25 L.F. Guardrail, Type 3TG  
 Approach End: Type "G" Flare  
 Trailing End: Type A Connection  
 See Plan Sht. No. 24 for Detail

STA. 253+75± RT. TO STA. 261+90± RT.  
 Remove existing Guardrail, Install approx. 490 L.F. of Guardrail, Type 3 Single with Steel Post; Install 50 L.F. Guardrail, Type 3 TG; Install 338'-9" Guardrail, Type 3TS  
 Approach End: Type "C" Flare  
 Trailing End: Type "F" Flare  
 See Plan Sht. Nos. 23-25 for Details

STA. 254+25± LT. TO STA. 255+25± LT.  
 Install approx. 75 L.F. of Guardrail, Type 3 Single with Steel Post; Install 25 L.F. of Guardrail, Type 3TG  
 Approach End: Type A Connection  
 Trailing End: Type "F" Flare  
 See Plan Sht. No. 24 for Detail

STA. 247+70 - STA. 266+00 LT./RT.  
 Install 8" Edge of Pavement Stripe w/Type C Reflective Pavement Markers @ 40' o.c.

**KEY:**

- \* Exist. Sign(s) & Post(s) to Remain
- \*\* Remove Exist. Sign(s) & Post(s)
- \*\*\* Remove Exist. & Install New Sign(s) & Post(s)
- \*\*\*\* Install New Sign(s) & Post(s)
- # Install Exist. St. Name Sign(s) on New Post
- ## Remove Exist. Sign & Install New Sign on Exist. Post
- ||- Install RM-3 w/Steel Post

**LEGEND FOR AS-BUILT POSTINGS**

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLAN**

KULA HIGHWAY  
GUARDRAIL & SHOULDER IMPROVEMENTS  
Vicinity of Kekaulike Ave. to Lower Kula Rd.  
Fed Aid Proj. No. STP-037-1(19)

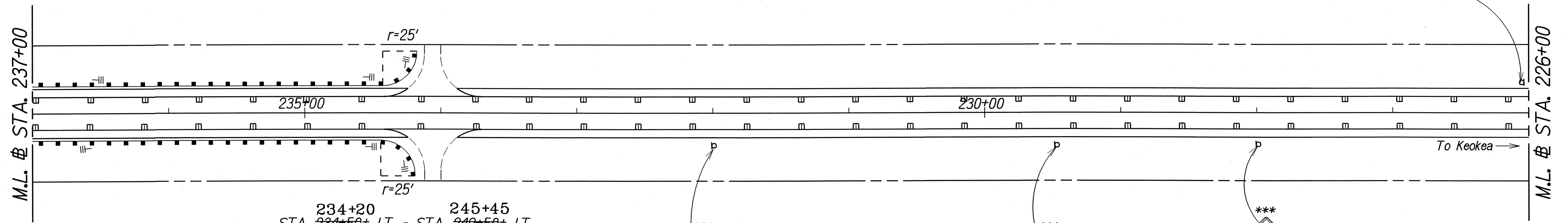
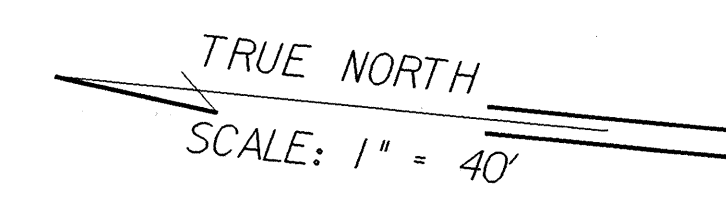
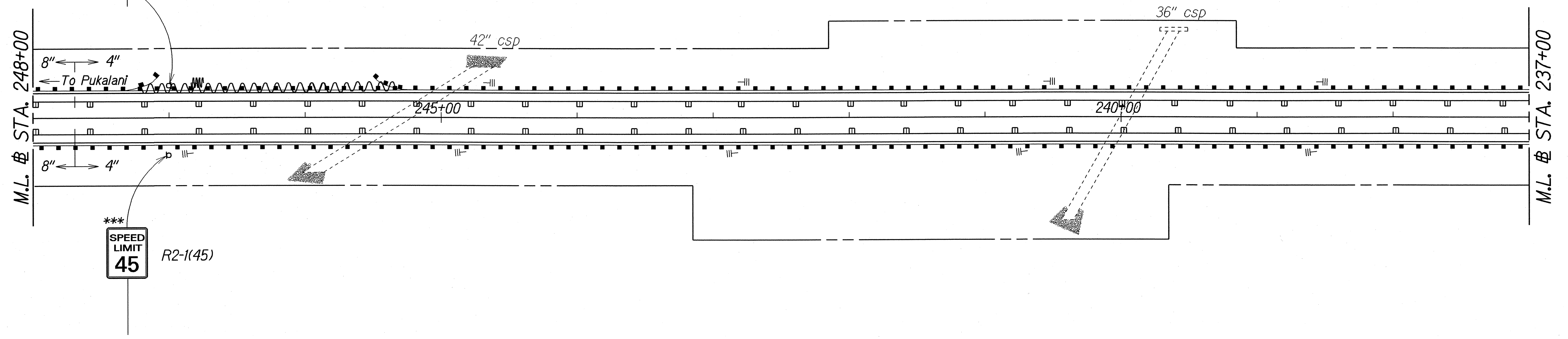
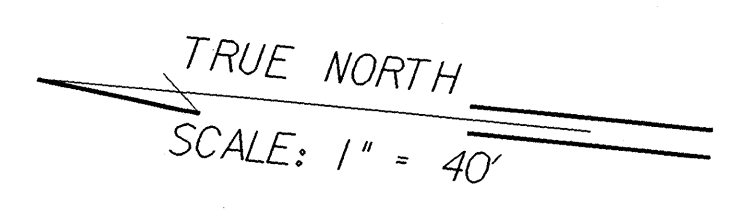
Scale: 1"=40' Date: July, 1993

SURVEY PLOTTED BY: [ ] DATE: July 1993  
 DRAWN BY: J. Guertgen  
 CHECKED BY: C. Brown  
 NOTE BOOK: [ ]  
 QUANTITIES BY: [ ]  
 CHECKED BY: [ ]

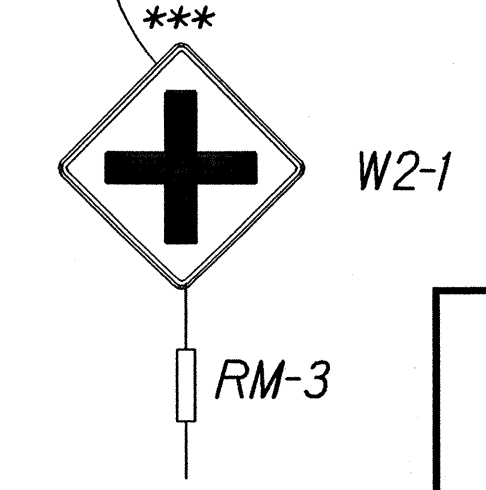
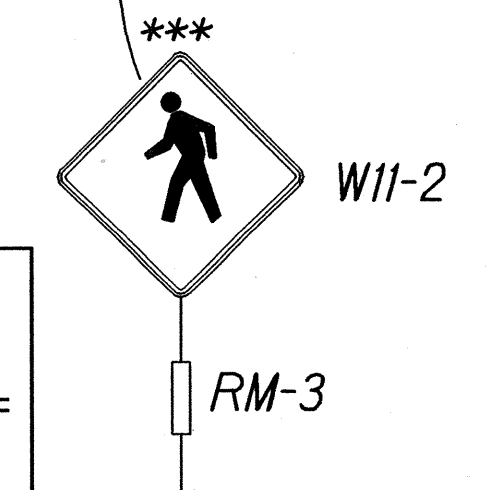
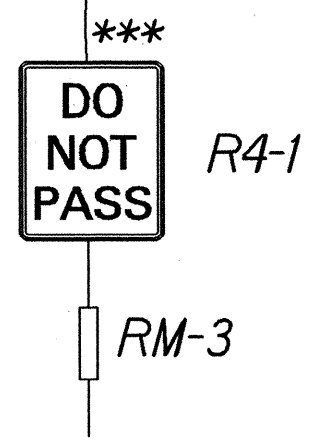
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-037-1(19)	1994	7	30

247+10      249+40  
 STA. 234+50± RT. - STA. 249+50± RT.  
 Install ~~1500~~ 230 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Modified Type "G" Flare with Rounded W-Beam End Section  
 Trailing End - Modified Type "G" Flare with Rounded W-Beam End Section



234+20      245+45  
 STA. 234+50± LT. - STA. 249+50± LT.  
 Install ~~1500~~ 1,125 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Modified Type "G" Flare w/rounded W-Beam End Section  
 Trailing End - Modified Type "G" Flare w/rounded W-Beam End Section



**KEY:**

- \* Exist. Sign(s) & Post(s) to Remain
- \*\* Remove Exist. Sign(s) & Post(s)
- \*\*\* Remove Exist. & Install New Sign(s) & Post(s)
- \*\*\*\* Install New Sign(s) & Post(s)
- # Install Exist. St. Name Sign(s) on New Post
- ## Remove Exist. Sign & Install New Sign on Exist. Post
- ||- Install RM-3 w/Steel Post

**LEGEND FOR AS-BUILT POSTINGS**

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

SURVEY PLOTTED BY	DATE
DRAWN BY	
NOTED BY	
CHECKED BY	

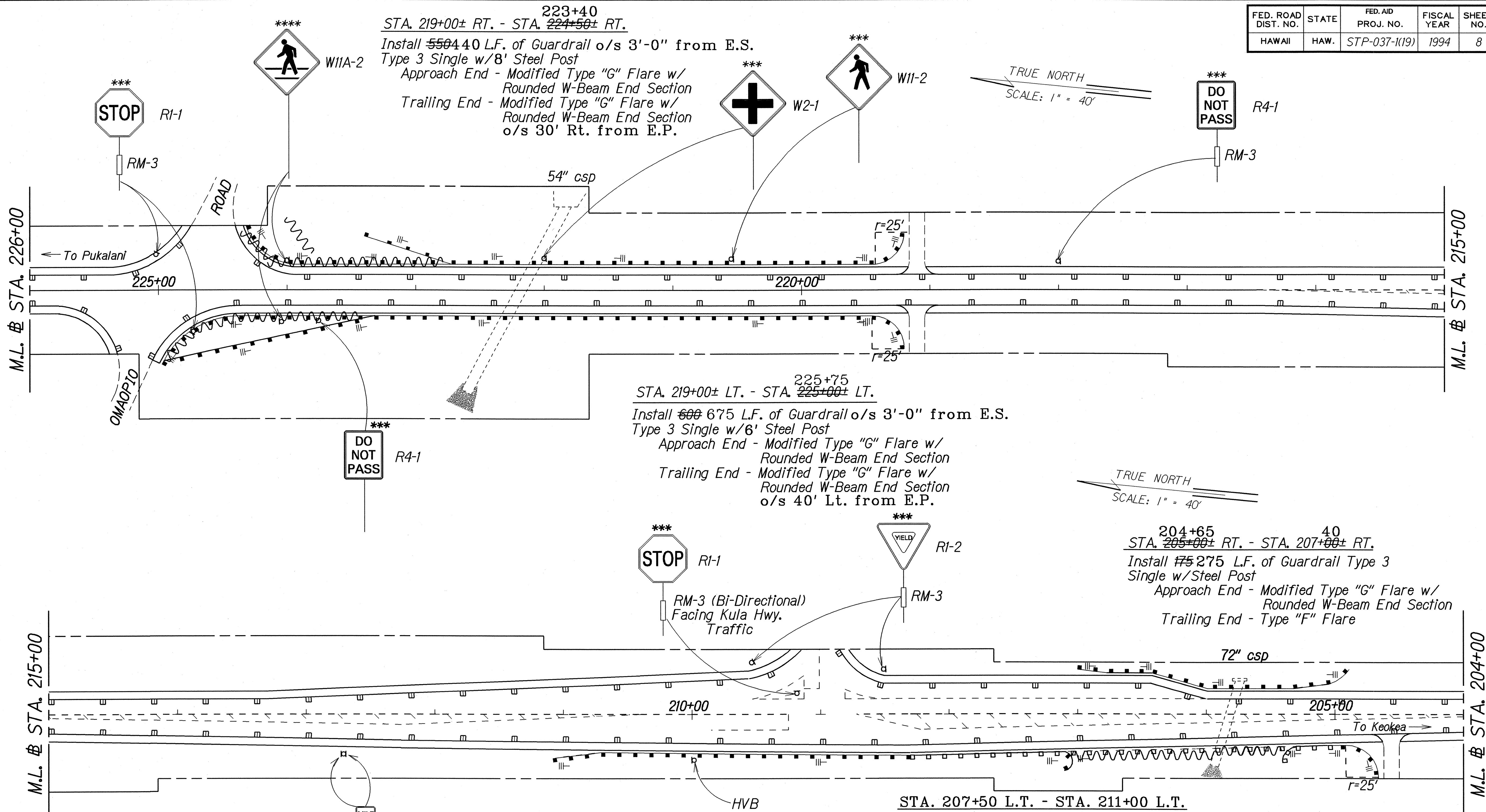
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**ROADWAY PLAN**  
 KULA HIGHWAY  
 GUARDRAIL & SHOULDER IMPROVEMENTS  
 Vicinity of Kekaulike Ave. to Lower Kula Rd.  
 Fed. Aid Proj. No. STP-037-1(19)

Scale: 1"=40'      Date: July, 1993

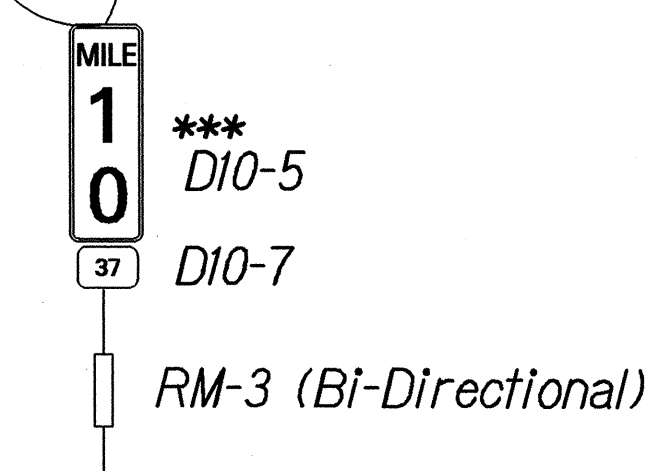
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-037-1(19)	1994	8	30



**KEY:**

- \* Exist. Sign(s) & Post(s) to Remain
- \*\* Remove Exist. Sign(s) & Post(s)
- \*\*\* Remove Exist. & Install New Sign(s) & Post(s)
- \*\*\*\* Install New Sign(s) & Post(s)
- # Install Exist. St. Name Sign(s) on New Post
- ## Remove Exist. Sign & Install New Sign on Exist. Post
- ||- Install RM-3 w/ Steel Post



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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLAN**

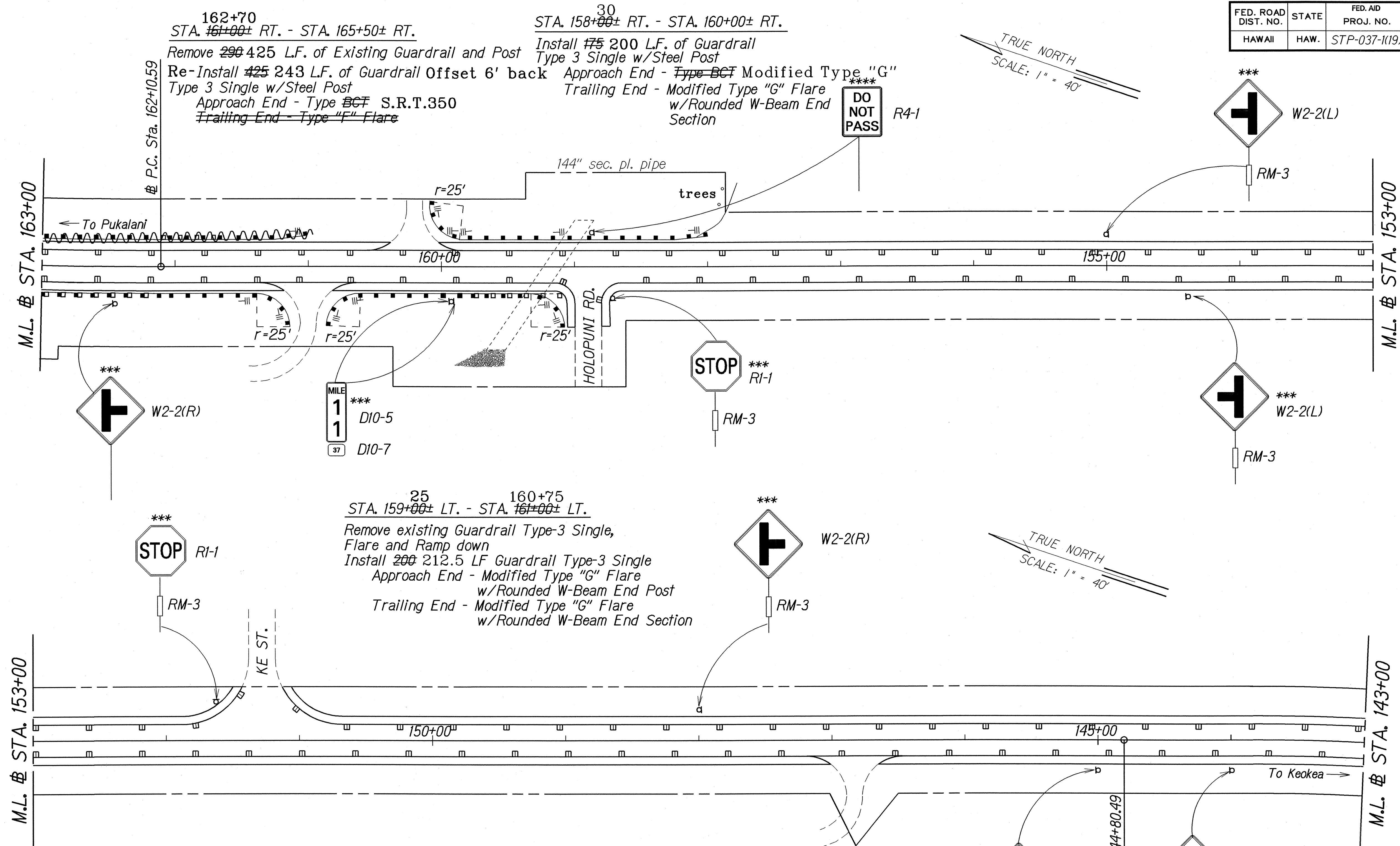
KULA HIGHWAY  
GUARDRAIL & SHOULDER IMPROVEMENTS  
Vicinity of Kekaulike Ave. to Lower Kula Rd.  
Fed. Aid Proj. No. STP-037-1(19)  
Scale: 1"=40' Date: July, 1993

SURVEY PLOTTED BY: DATE: 12-22-93  
 DRAWN BY: J. GUERLINO  
 CHECKED BY: C. BEASLEY  
 ORIGINAL PLAN: 12-22-93  
 NOTE BOOK: 12-22-93  
 DESIGNED BY: N. WILSON  
 CHECKED BY:





FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-037-1(19)	1994	11	30



- KEY:**
- \* Exist. Sign(s) & Post(s) to Remain
  - \*\* Remove Exist. Sign(s) & Post(s)
  - \*\*\* Remove Exist. & Install New Sign(s) & Post(s)
  - \*\*\*\* Install New Sign(s) & Post(s)
  - # Install Exist. St. Name Sign(s) on New Post
  - ## Remove Exist. Sign & Install New Sign on Exist. Post
  - ||- Install RM-3 w/Steel Post

**LEGEND FOR AS-BUILT POSTINGS**

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

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLAN**

KULA HIGHWAY  
GUARDRAIL & SHOULDER IMPROVEMENTS  
Vicinity of Kekaulike Ave. to Lower Kula Rd.  
Fed. Aid Proj. No. STP-037-1(19)

Scale: 1"=40' Date: July, 1993

"AS-BUILT"

60  
 STA. 141+00± RT. - STA. 142+70± RT.

Remove 110 L.F. of Existing Guardrail  
 Install 187.5 L.F. of Guardrail  
 Type 3 Single w/Steel Post

Approach End - Modified Type "G" Flare Attached to Bridge Wall  
 w/Rounded W-Beam End Section  
 Trailing End - Type "F" Flare

Existing Bridge

156" sec. pl. pipe

r=25'

To Pukalani

M.L. # STA. 143+00

# C. S. Sta. 142+30.49

PULEHU RD.

STOP RI-1

W2-1

W13-1(35)

W11-2

RM-3

RM-3

RM-3

STOP RI-1

RM-3

W2-2(L)

RM-3

# S. C. Sta. 136+72.57

# T. S. Sta. 134+22.57

PASS WITH CARE R4-2

M.L. # STA. 132+00

M.L. # STA. 132+00

54" csp

KAMEHAMEKI RD.

TRUE NORTH

SCALE: 1" = 40'

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-037-1(19)	1994	12	30

STA. 131+60± RT. - STA. 133+80± RT.

Install 220 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Type "C" Flare  
 Trailing End - Modified Type "G" Flare  
 w/Rounded W-Beam End Section

**CURVE DATA**

$\Delta = 32^{\circ}19'$   
 $Dc = 400'$   
 $Lc = 557.92$   
 $Ts = 540.52$   
 $Xc = 249.81$   
 $Yc = 7.27$   
 $\Delta c = 22^{\circ}19'$   
 $\theta s = 5^{\circ}00'$   
 $S. E. = 0.090 \text{ ft/ft}$

141+47.5  
 STA. 141+30± LT. - STA. 142+85± LT.

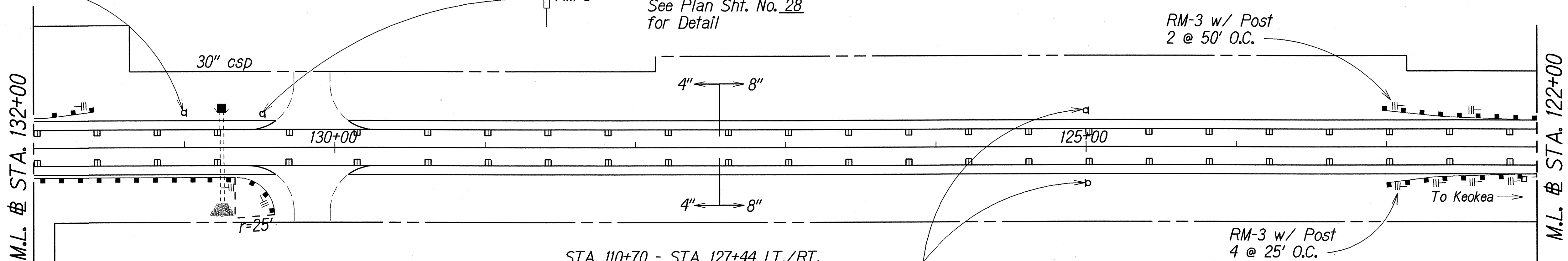
Remove 80 L.F. of Existing Guardrail  
 Install 137.5 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Type "C" Flare  
 Trailing End - Modified Type "G" Flare  
 w/Rounded W-Beam End Section

DO NOT PASS R4-1

STA. 130+75± o/s = 26.0 RT.  
 Type 61614B GDI  
 Inv. = 2546.5  
 See Plan Sht. No. 28  
 for Detail

**LEGEND FOR AS-BUILT POSTINGS**

~~~~~ Squiggly line for as-built deletion  
 =100.00 Double line for as-built deletion  
 Roadway Text for as-built posting



**KEY:**

- \* Exist. Sign(s) # Post(s) to Remain
- \*\* Remove Exist. Sign(s) # Post(s)
- \*\*\* Remove Exist. # Install New Sign(s) # Post(s)
- \*\*\*\* Install New Sign(s) # Post(s)
- # Install Exist. St. Name Sign(s) on New Post
- ## Remove Exist. Sign # Install New Sign on Exist. Post
- ||| Install RM-3 w/Steel Post

STA. 110+70 - STA. 127+44 LT./RT.  
 Install 8" Edge of Pavement Stripe  
 with Type "C" Pavement Markers @ 40' o.c.

STA. 130+40± LT. - STA. 134+50± LT.

Install 410 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Type "C" Flare  
 Trailing End - Modified Type "G" Flare  
 w/Rounded W-Beam End Section

STA. 121+50± LT. TO STA. 123+00± LT.  
 Remove existing Guardrail; Install approx. 130 L.F.  
 Guardrail, Type 3 Single w/Steel Post; Install  
 25 L.F. Guardrail, Type 3TG  
 Approach End: Type "C" Flare  
 Trailing End: Type "A" Connection  
 See Plan Sht. No. 24 for Detail

|                   |             |
|-------------------|-------------|
| DATE              | July 1993   |
| SURVEY PLOTTED BY | J. Guertgen |
| DRAWN BY          | J. Guertgen |
| DESIGNED BY       | C. Beasler  |
| CHECKED BY        | N. Williams |

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**ROADWAY PLAN**

KULA HIGHWAY

GUARDRAIL # SHOULDER IMPROVEMENTS  
 Vicinity of Kekaulike Ave. to Lower Kula Rd.  
 Fed. Aid Proj. No. STP-037-1(19)

Scale: 1"=40' Date: July, 1993

SHEET No. 8 OF 14 SHEETS

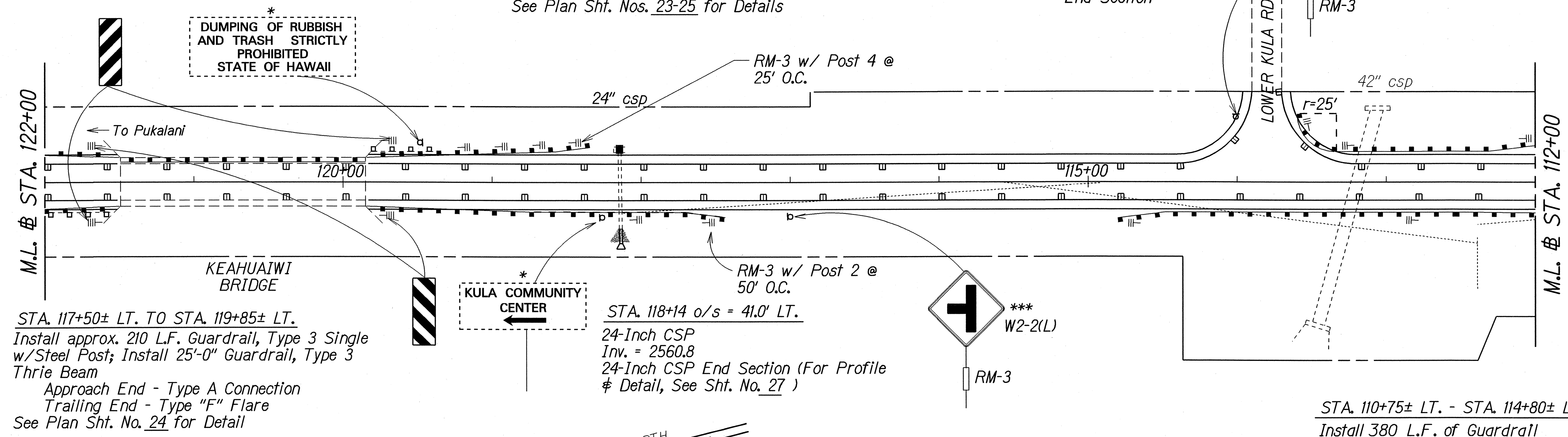
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | STP-037-1(19)      | 1994        | 13        | 30           |

TRUE NORTH  
SCALE: 1" = 40'

STA. 118+14 o/s = 21.5 RT.  
Type 61614B GDI  
Inv. = 2,562.0  
See Plan Sht. No. 27  
for Detail

STA. 118+25± RT. TO STA. 123+00± RT.  
Remove existing Guardrail, Install approx. 255 L.F. of Guardrail, Type 3 Single w/Steel Post;  
Install 50 L.F. of Guardrail, Type 3TG;  
Install 171'-3" Guardrail, Type 3TS  
Approach End - Type "C" Flare  
Trailing End - Type "F" Flare  
See Plan Sht. Nos. 23-25 for Details

STA. 112+00± RT. - STA. 113+50± RT.  
Install 150 L.F. of Guardrail  
Type 3 Single w/Steel Post  
Approach End - Type "C" Flare  
Trailing End - Modified Type "G" Flare w/Rounded W-Beam End Section

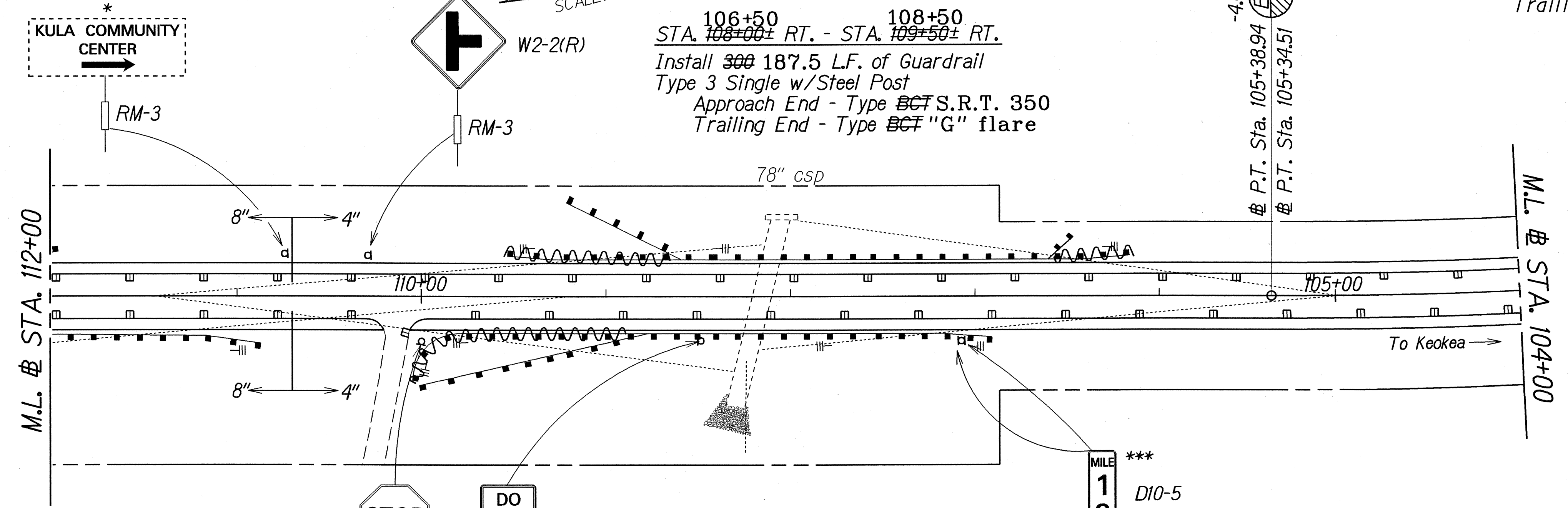


STA. 117+50± LT. TO STA. 119+85± LT.  
Install approx. 210 L.F. Guardrail, Type 3 Single w/Steel Post; Install 25'-0" Guardrail, Type 3 Thrie Beam  
Approach End - Type A Connection  
Trailing End - Type "F" Flare  
See Plan Sht. No. 24 for Detail

STA. 118+14 o/s = 41.0' LT.  
24-Inch CSP  
Inv. = 2560.8  
24-Inch CSP End Section (For Profile & Detail, See Sht. No. 27)

STA. 110+75± LT. - STA. 114+80± LT.  
Install 380 L.F. of Guardrail  
Type 3 Single w/Steel Post  
Approach End - Type "C" Flare  
Trailing End - Type BCT S.R.T. 350

TRUE NORTH  
SCALE: 1" = 40'



106+50 STA. 106+00± RT. - STA. 109+50± RT.  
Install 300 187.5 L.F. of Guardrail  
Type 3 Single w/Steel Post  
Approach End - Type BCT S.R.T. 350  
Trailing End - Type BCT "G" flare

STA. 107+00± LT. - STA. 110+00± LT.  
Install 275 L.F. of Guardrail  
Type 3 Single w/Steel Post  
Approach End - Type BCT  
Trailing End - Type BCT S.R.T. 350

KEY:

- \* Exist. Sign(s) & Post(s) to Remain
- \*\* Remove Exist. Sign(s) & Post(s)
- \*\*\* Remove Exist. & Install New Sign(s) & Post(s)
- \*\*\*\* Install New Sign(s) & Post(s)
- # Install Exist. St. Name Sign(s) on New Post
- ## Remove Exist. Sign & Install New Sign on Exist. Post
- ||- Install RM-3 w/Steel Post

LEGEND FOR AS-BUILT POSTINGS

|         |                                     |
|---------|-------------------------------------|
|         | Squiggly line for as-built deletion |
|         | Double line for as-built deletion   |
| Roadway | Text for as-built posting           |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLAN**

KULA HIGHWAY  
GUARDRAIL & SHOULDER IMPROVEMENTS  
Vicinity of Kekaulike Ave. to Lower Kula Rd.  
Fed. Aid Proj. No. STP-037-1(19)

Scale: 1"=40' Date: July, 1993

SHEET No. 9 OF 14 SHEETS

|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY          |      |
| TRACED BY         |      |
| NOTED BY          |      |
| CHECKED BY        |      |
| ORIGINAL PLAN     |      |
| NOTE BOOK         |      |
| NO. 200000        |      |
| NO. 200000        |      |

"AS-BUILT"

|                     |       |                    |             |           |              |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| HAWAII              | HAW.  | STP-037-1(19)      | 1994        | 14        | 30           |

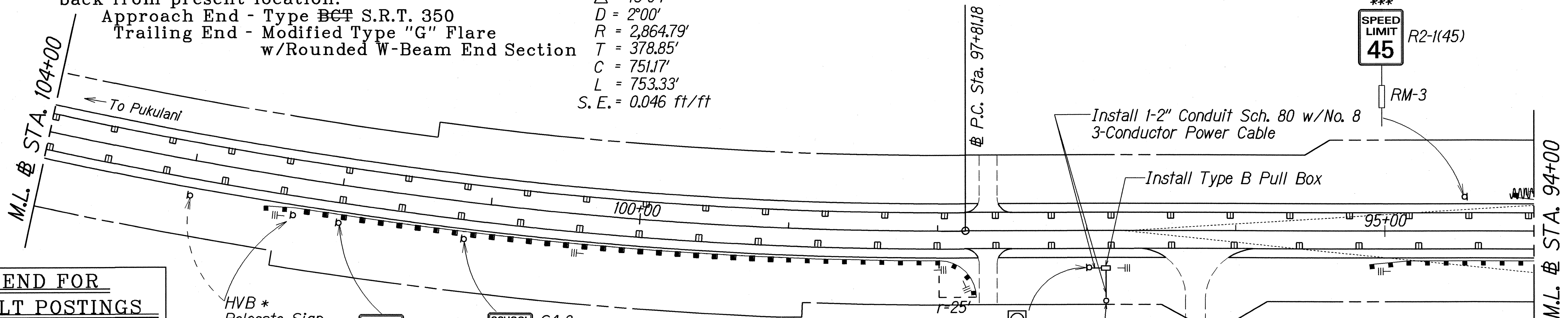
STA. 97+80 L.T. - STA. 102+50 L.T.

Remove 445 L.F. of Guardrail (Low Priority)  
Reinstall 445 L.F. of Guardrail o/s 4'-0"  
back from present location.

Approach End - Type ~~BCT~~ S.R.T. 350  
Trailing End - Modified Type "G" Flare  
w/Rounded W-Beam End Section

**¢ CURVE DATA**  
 $\Delta = 15^{\circ}04'$   
 $D = 2^{\circ}00'$   
 $R = 2,864.79'$   
 $T = 378.85'$   
 $C = 751.17'$   
 $L = 753.33'$   
 $S.E. = 0.046 \text{ ft/ft}$

TRUE NORTH  
SCALE: 1" = 40'



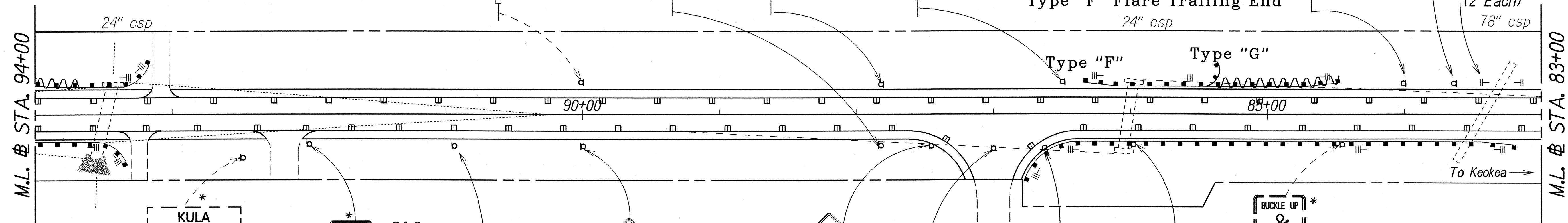
**LEGEND FOR AS-BUILT POSTINGS**

|         |                                     |
|---------|-------------------------------------|
|         | Squiggly line for as-built deletion |
|         | Double line for as-built deletion   |
| Roadway | Text for as-built posting           |

STA. 93+00± RT. - STA. 94+25± RT.

Install 100 L.F. of Guardrail  
Type 3 Single w/Steel Post  
Approach End - Modified Type "G" Flare  
w/ Rounded W-Beam End Section  
Trailing End - Type ~~BCT~~ "F" Flare

TRUE NORTH  
SCALE: 1" = 40'



**KEY:**

- \* Exist. Sign(s) & Post(s) to Remain
- \*\* Remove Exist. Sign(s) & Post(s)
- \*\*\* Remove Exist. & Install New Sign(s) & Post(s)
- \*\*\*\* Install New Sign(s) & Post(s)
- # Install Exist. St. Name Sign(s) on New Post
- ## Remove Exist. Sign & Install New Sign on Exist. Post
- ||- Install RM-3 w/Steel Post

STA. 93+25± LT. - STA. 95+00± LT.

Install 150 L.F. of Guardrail  
Type 3 Single w/Steel Post  
Approach End - Type ~~BCT~~ "C" Flare  
Trailing End - Modified Type "G" Flare S.R.T. 350  
w/Rounded W-Beam End Section

STA. 83+25± LT. - STA. 87+75± LT.

Install 375 L.F. of Guardrail  
Type 3 Single w/Steel Post  
Approach End - Modified Type "G" Flare  
w/ Rounded W-Beam End Section  
Trailing End - Type BCT

|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY          |      |
| NOTE BOOK         |      |
| QUANTITIES BY     |      |
| CHECKED BY        |      |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

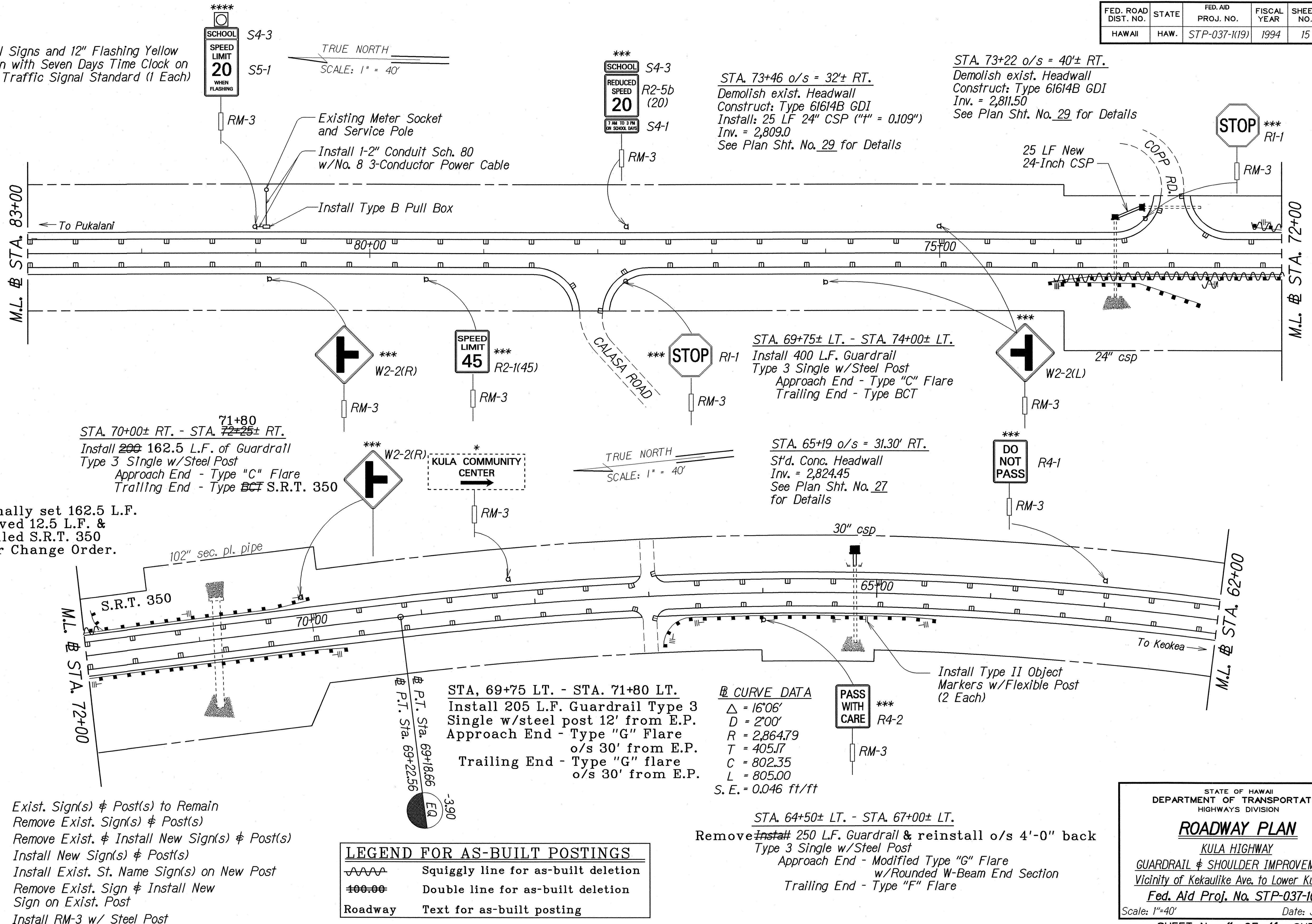
**ROADWAY PLAN**

KULA HIGHWAY  
GUARDRAIL & SHOULDER IMPROVEMENTS  
Vicinity of Kekaulike Ave. to Lower Kula Rd.  
Fed. Aid Proj. No. STP-037-1(19)  
Scale: 1"=40' Date: July, 1993  
SHEET No. 10 OF 14 SHEETS

"AS-BUILT"

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | STP-037-1(19)      | 1994        | 15        | 30           |

Install Signs and 12" Flashing Yellow Beacon with Seven Days Time Clock on 10-Ft. Traffic Signal Standard (1 Each)



Originally set 162.5 L.F. Removed 12.5 L.F. & installed S.R.T. 350 as per Change Order.

**KEY:**

- \* Exist. Sign(s) & Post(s) to Remain
- \*\* Remove Exist. Sign(s) & Post(s)
- \*\*\* Remove Exist. & Install New Sign(s) & Post(s)
- \*\*\*\* Install New Sign(s) & Post(s)
- # Install Exist. St. Name Sign(s) on New Post
- ## Remove Exist. Sign & Install New Sign on Exist. Post
- ||- Install RM-3 w/ Steel Post

**LEGEND FOR AS-BUILT POSTINGS**

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

|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY          |      |
| TRACED BY         |      |
| NOTED BY          |      |
| CHECKED BY        |      |
| DATE              |      |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

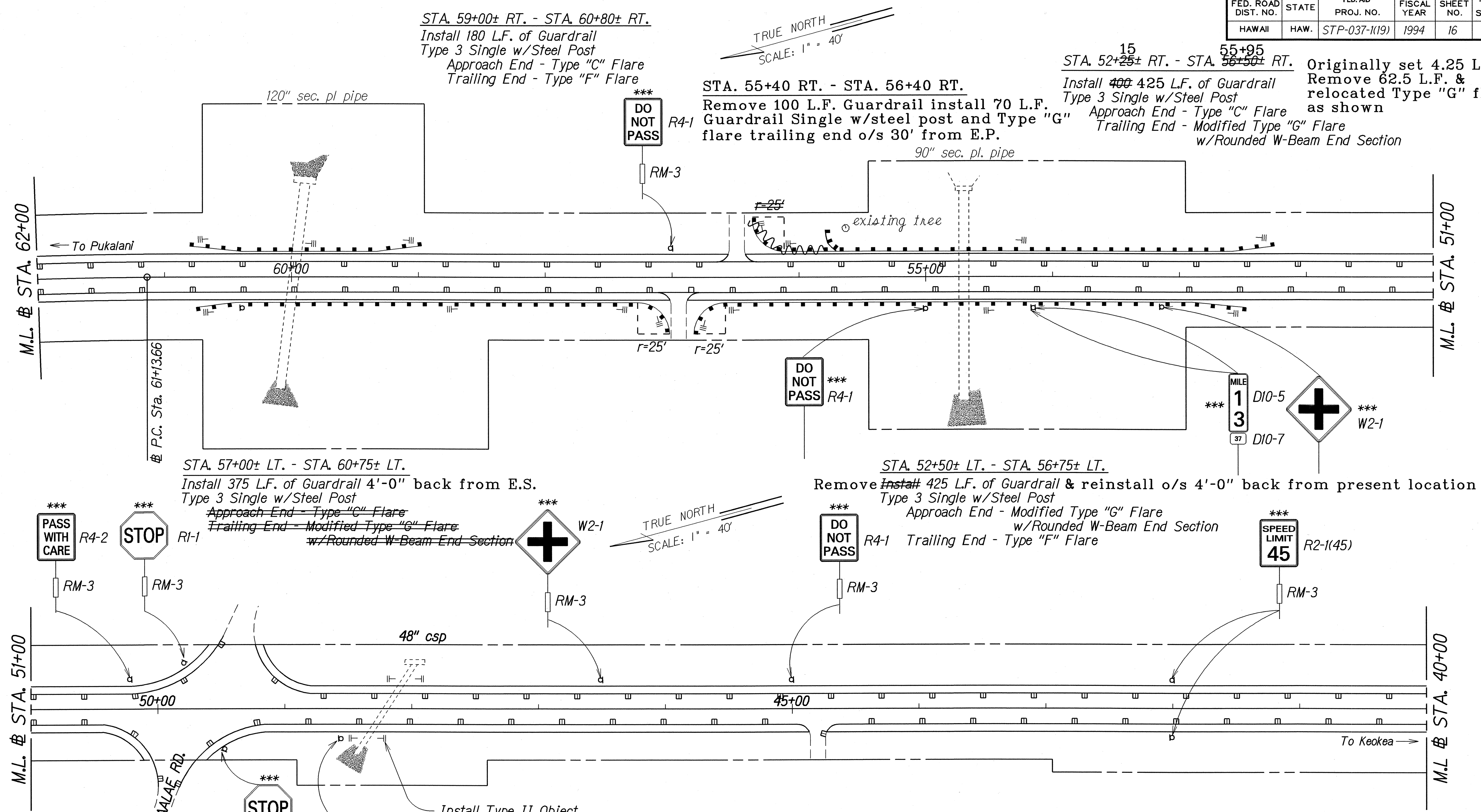
**ROADWAY PLAN**

KULA HIGHWAY  
GUARDRAIL & SHOULDER IMPROVEMENTS  
Vicinity of Kekaulike Ave. to Lower Kula Rd.  
Fed. Aid Proj. No. STP-037-1(19)

Scale: 1"=40' Date: July, 1993

SHEET No. 11 OF 14 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | STP-037-1(19)      | 1994        | 16        | 30           |



STA. 59+00± RT. - STA. 60+80± RT.  
 Install 180 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Type "C" Flare  
 Trailing End - Type "F" Flare

STA. 55+40 RT. - STA. 56+40 RT.  
 Remove 100 L.F. Guardrail install 70 L.F.  
 Guardrail Single w/steel post and Type "G"  
 flare trailing end o/s 30' from E.P.

15  
 STA. 52+25± RT. - STA. 56+50± RT. Originally set 4.25 L.F.  
 Remove 62.5 L.F. &  
 relocated Type "G" flare  
 as shown  
 Install 425 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Type "C" Flare  
 Trailing End - Modified Type "G" Flare  
 w/Rounded W-Beam End Section

STA. 57+00± LT. - STA. 60+75± LT.  
 Install 375 L.F. of Guardrail 4'-0" back from E.S.  
 Type 3 Single w/Steel Post  
 Approach End - Type "C" Flare  
 Trailing End - Modified Type "G" Flare  
 w/Rounded W-Beam End Section

STA. 52+50± LT. - STA. 56+75± LT.  
 Remove ~~Install~~ 425 L.F. of Guardrail & reinstall o/s 4'-0" back from present location  
 Type 3 Single w/Steel Post  
 Approach End - Modified Type "G" Flare  
 w/Rounded W-Beam End Section  
 Trailing End - Type "F" Flare

- KEY:**
- \* Exist. Sign(s) & Post(s) to Remain
  - \*\* Remove Exist. Sign(s) & Post(s)
  - \*\*\* Remove Exist. & Install New Sign(s) & Post(s)
  - \*\*\*\* Install New Sign(s) & Post(s)
  - # Install Exist. St. Name Sign(s) on New Post
  - ## Remove Exist. Sign & Install New Sign on Exist. Post
  - ||- Install RM-3 w/Steel Post

**LEGEND FOR AS-BUILT POSTINGS**

|         |                                     |
|---------|-------------------------------------|
|         | Squiggly line for as-built deletion |
|         | Double line for as-built deletion   |
| Roadway | Text for as-built posting           |

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**ROADWAY PLAN**

KULA HIGHWAY  
 GUARDRAIL & SHOULDER IMPROVEMENTS  
 Vicinity of Kekaulike Ave. to Lower Kula Rd.  
 Fed. Aid Proj. No. STP-037-1(19)

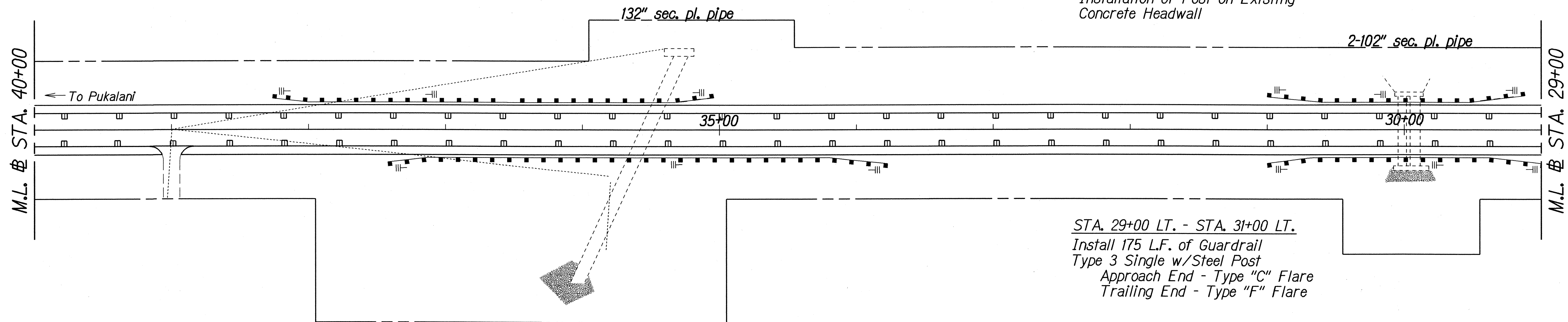
Scale: 1"=40' Date: July, 1993  
 SHEET No. 12 OF 14 SHEETS

DATE: 12-23-93  
 SURVEY PLOTTED BY: J. Guerrero  
 DRAWN BY: J. Guerrero  
 CHECKED BY: C. Rogers  
 NOTE BOOK: 442, George  
 ORIGINAL PLAN: No. 2, 10/10/92

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | STP-037-1(19)      | 1994        | 17        | 30           |

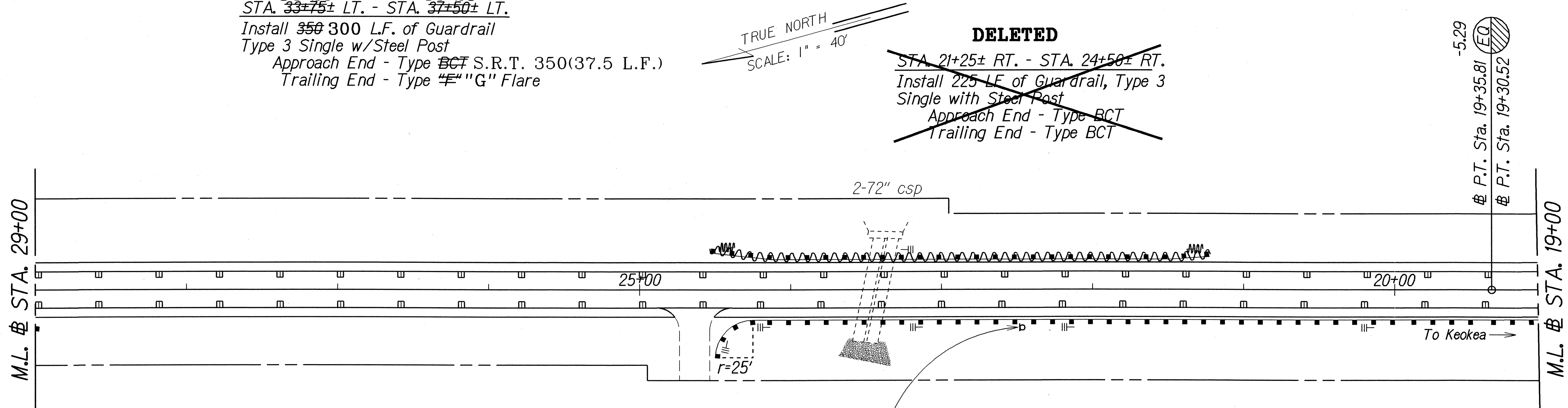
STA. 35+00± RT. - STA. 38+25± RT.  
 Install 300 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Type "C" Flare  
 Trailing End - Type ~~BCT~~ "F" Flare

STA. 29+20± RT. - STA. 31+00± RT.  
 Install 180 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Type "C" Flare  
 Trailing End - Type "F" Flare  
 See Detail on Sheet No. 22 for  
 Installation of Post on Existing  
 Concrete Headwall



34+20 38+25  
 STA. 33+75± LT. - STA. 37+50± LT.  
 Install 300 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Type ~~BCT~~ S.R.T. 350(37.5 L.F.)  
 Trailing End - Type "E" "G" Flare

**DELETED**  
~~STA. 21+25± RT. - STA. 24+50± RT.  
 Install 225 L.F. of Guardrail, Type 3  
 Single with Steel Post  
 Approach End - Type BCT  
 Trailing End - Type BCT~~



STA. 23+90 L.T. - STA. 24+50 L.T.  
 Remove 60 L.F. of Guardrail &  
 Reinstall 60 L.F. of Guardrail  
 closer to edge of drop off  
 Type 3 w/Steel Post  
 Trailing End - Type "G" Flare

STA. 16+50± LT. - STA. 24+50± LT.  
 Install 800 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Modified Type "G" Flare  
 w/Rounded W-Beam End Section  
 Trailing End - Type "F" Flare

**KEY:**

- \* Exist. Sign(s) & Post(s) to Remain
- \*\* Remove Exist. Sign(s) & Post(s)
- \*\*\* Remove Exist. & Install New Sign(s) & Post(s)
- \*\*\*\* Install New Sign(s) & Post(s)
- # Install Exist. St. Name Sign(s) on New Post
- ## Remove Exist. Sign & Install New Sign on Exist. Post
- ||- Install RM-3 w/Steel Post

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

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**ROADWAY PLAN**

KULA HIGHWAY  
 GUARDRAIL & SHOULDER IMPROVEMENTS  
 Vicinity of Kekaulike Ave. to Lower Kula Rd.  
 Fed. Aid Proj. No. STP-037-1(19)

Scale: 1"=40' Date: July, 1993

SHEET No. 13 OF 14 SHEETS

|                   |             |
|-------------------|-------------|
| ORIGINAL PLAN     | DATE        |
| SURVEY PLOTTED BY | July 1993   |
| DRAWN BY          | J. Guerrero |
| DESIGNED BY       | C. Espinoza |
| CHECKED BY        | S. Williams |

"AS-BUILT"

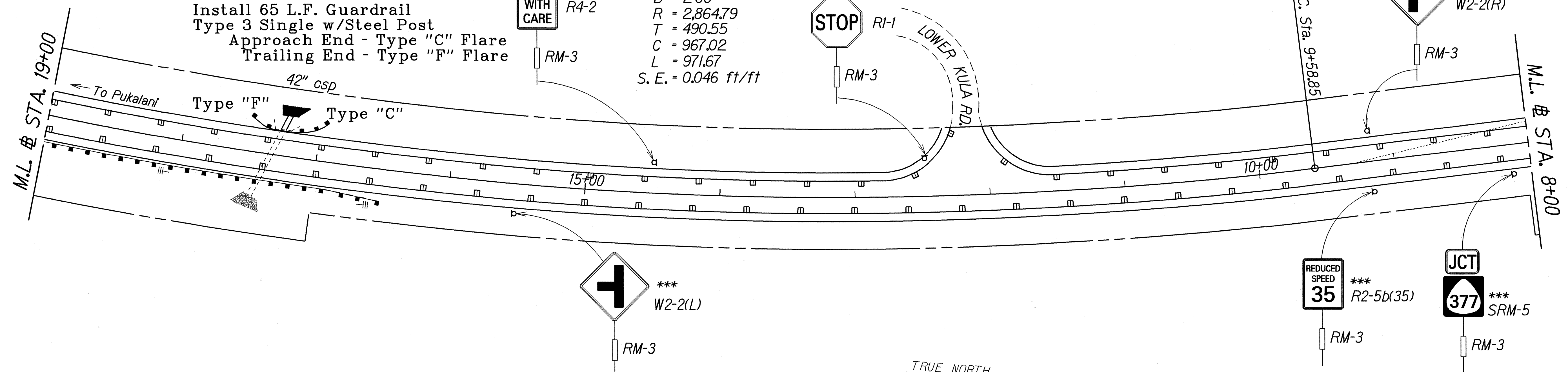
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | STP-037-1(19)      | 1994        | 18        | 30           |

STA. 17+34 o/s = 30.0' RT.  
 42" CSP and Concrete Headwall  
 Inv. = 3006.20  
 See plan Sht. #26 for Detail

STA. 16+85 RT. - STA. 17+50 RT.  
 Install 65 L.F. Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Type "C" Flare  
 Trailing End - Type "F" Flare

**B CURVE DATA**  
 $\Delta = 19^{\circ}26'$   
 $D = 2^{\circ}00'$   
 $R = 2,864.79$   
 $T = 490.55$   
 $C = 967.02$   
 $L = 971.67$   
 $S.E. = 0.046 \text{ ft/ft}$

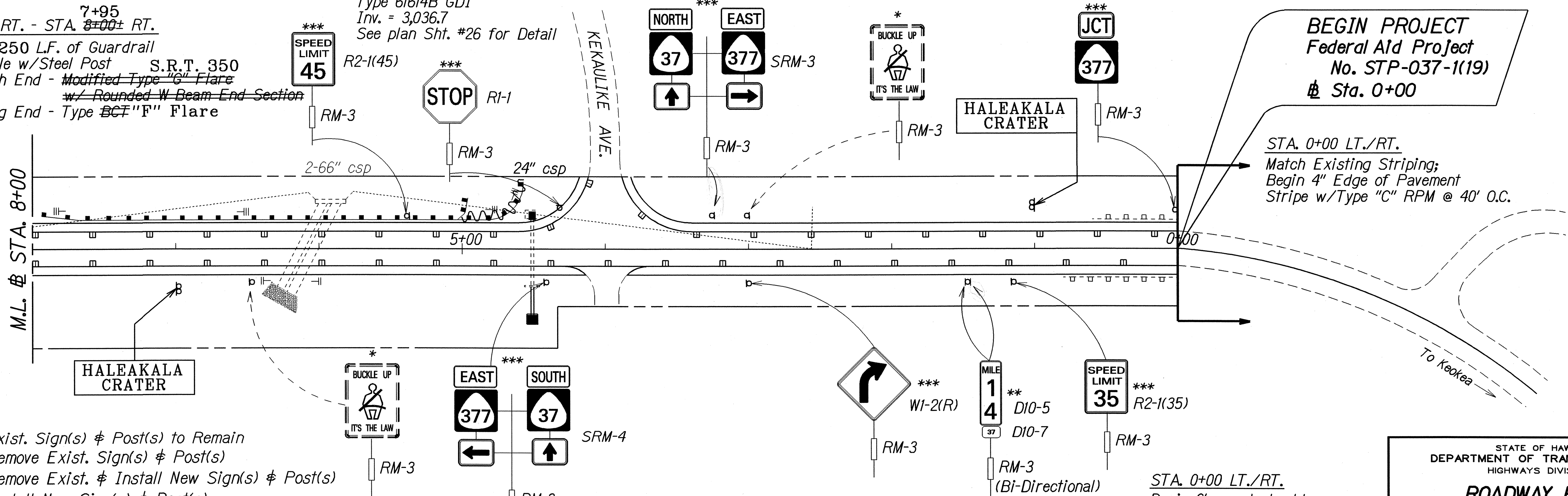
TRUE NORTH  
 SCALE: 1" = 40'



5+05  
 STA. 4+50± RT. - STA. 8+00± RT.  
 Install 325 L.F. of Guardrail  
 Type 3 Single w/Steel Post  
 Approach End - Modified Type "G" Flare  
 Trailing End - Type "F" Flare

STA. 4+56 o/s = 23.50' RT.  
 Type 61614B GDI  
 Inv. = 3,036.7  
 See plan Sht. #26 for Detail

TRUE NORTH  
 SCALE: 1" = 40'



**BEGIN PROJECT**  
 Federal Aid Project  
 No. STP-037-1(19)  
 Sta. 0+00

STA. 0+00 LT./RT.  
 Match Existing Striping;  
 Begin 4" Edge of Pavement  
 Stripe w/Type "C" RPM @ 40' O.C.

STA. 0+00 LT./RT.  
 Begin 6' paved shoulder  
 Continue till end of project

**KEY:**

- \* Exist. Sign(s) & Post(s) to Remain
- \*\* Remove Exist. Sign(s) & Post(s)
- \*\*\* Remove Exist. & Install New Sign(s) & Post(s)
- \*\*\*\* Install New Sign(s) & Post(s)
- # Install Exist. St. Name Sign(s) on New Post
- ## Remove Exist. Sign & Install New Sign on Exist. Post
- ||- Install RM-3 w/Steel Post

STA. 4+56 o/s = 46.00± LT.  
 Modified Concrete Headwall  
 Inv. = 3,032.0  
 See Plan Sheet #24 for Details

**LEGEND FOR AS-BUILT POSTINGS**

|         |                                     |
|---------|-------------------------------------|
|         | Squiggly line for as-built deletion |
|         | Double line for as-built deletion   |
| Roadway | Text for as-built posting           |

|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY          |      |
| NOTED BY          |      |
| CHECKED BY        |      |
| ORIGINAL PLAN     |      |
| NOTE BOOK         |      |
| DATE              |      |
| BY                |      |
| CHECKED BY        |      |

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**ROADWAY PLAN**  
 KULA HIGHWAY  
 GUARDRAIL & SHOULDER IMPROVEMENTS  
 Vicinity of Kekaulike Ave. to Lower Kula Rd.  
 Fed. Aid Proj. No. STP-037-1(19)

Scale: 1"=40' Date: July, 1993  
 SHEET No. 14 OF 14 SHEETS

"AS-BUILT"