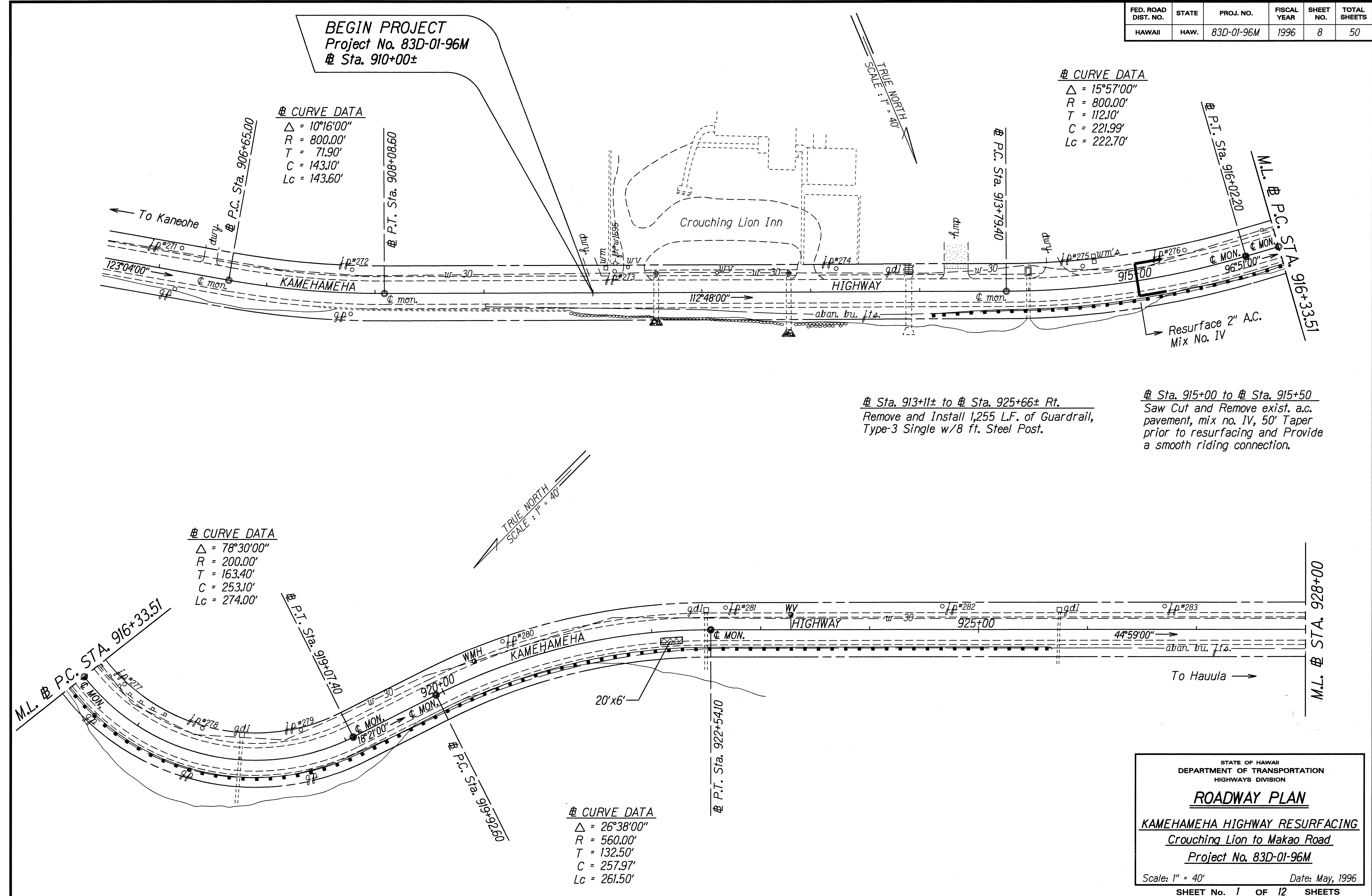


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83D-01-96M	1996	8	50



ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	15-10-96
DESIGNED BY	
TRACED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

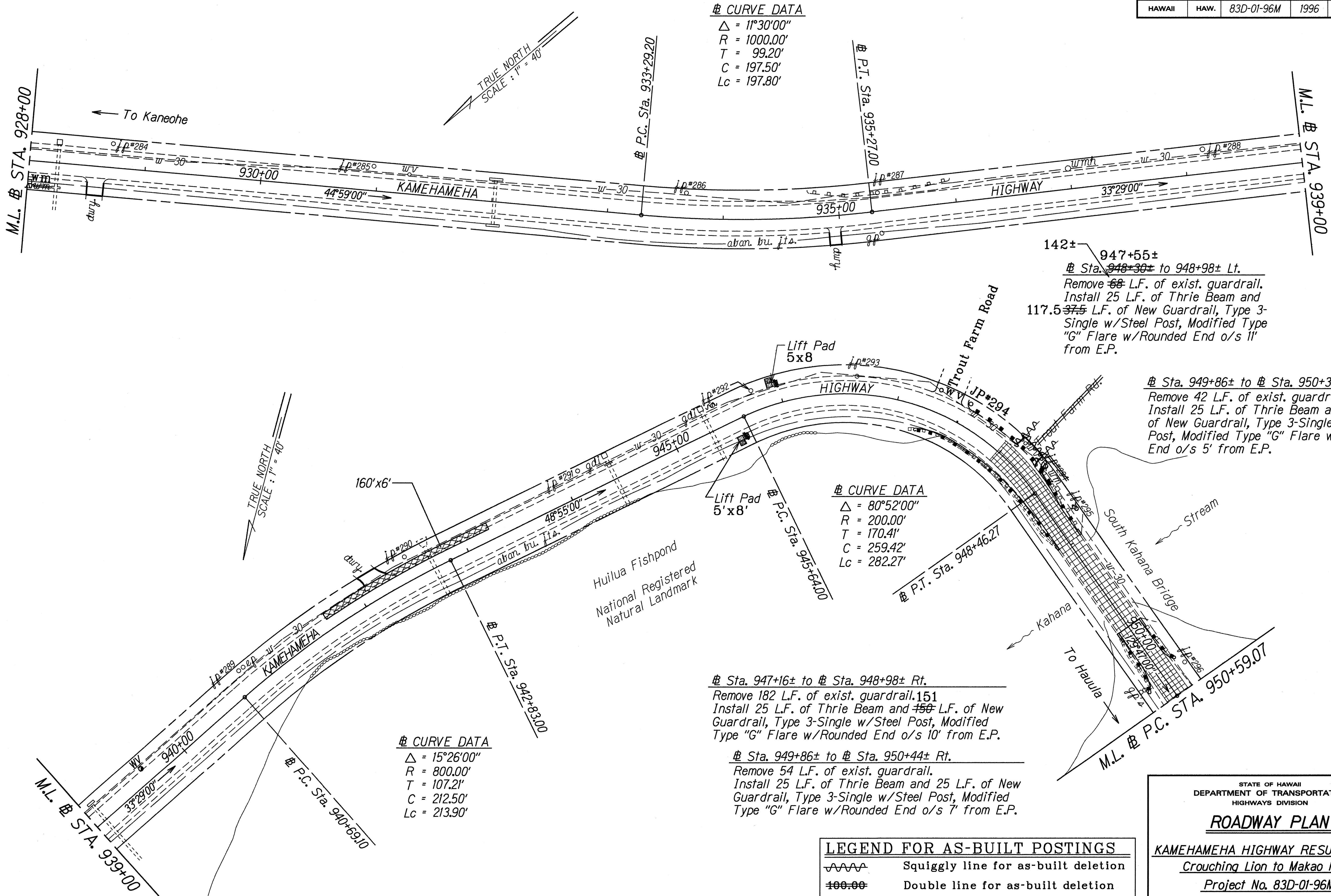
ROADWAY PLAN

KAMEHAMEHA HIGHWAY RESURFACING
Crouching Lion to Makao Road
Project No. 83D-01-96M

Scale: 1" = 40' Date: May, 1996

SHEET No. 1 OF 12 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83D-01-96M	1996	9	50



DESIGNED BY	DATE
DRAWN BY	15-14-96
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

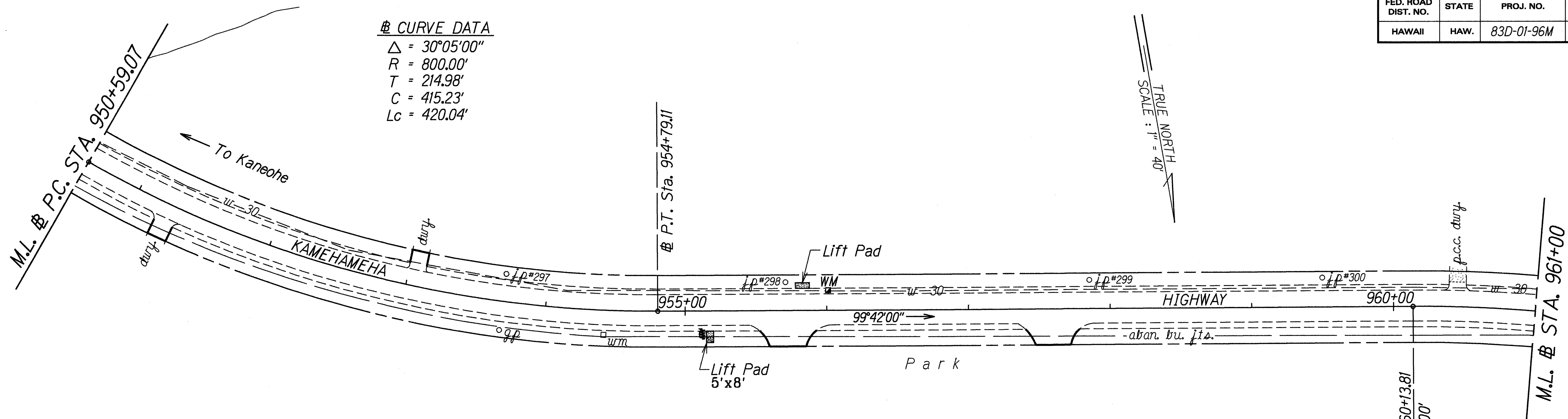
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN
KAMEHAMEHA HIGHWAY RESURFACING
Crouching Lion to Makao Road
Project No. 83D-01-96M

Scale: 1" = 40'
Date: May, 1996

SHEET No. 2 OF 12 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83D-01-96M	1996	10	50



CURVE DATA
 $\Delta = 30^{\circ}05'00''$
 $R = 800.00'$
 $T = 214.98'$
 $C = 415.23'$
 $Lc = 420.04'$

Sta. 963+24± to 963+71± Lt.
 Remove 42 L.F. of exist. guardrail.
 Install 25 L.F. of Thrie Beam and
 12.5 L.F. of New Guardrail, Type 3-
 Single w/Steel Post, Modified Type
 "G" Flare w/Rounded End o/s 6'
 from E.P.

exist. pcc pav't.
 encountered 5"
 beneath exist.
 roadway prior
 to resurfacing.

Sta. 964+60± to 965+44± Lt.
 Remove 80 L.F. of exist. guardrail.
 Install 25 L.F. of Thrie Beam and
 50 L.F. of New Guardrail, Type 3-
 Single w/Steel Post, Modified Type
 "G" Flare w/Rounded End o/s 7'
 from E.P.

exist. pcc pav't. removed,
 and reconstructed to a depth
 of 8". (total reconstruction is 8")

exist. pcc pav't.
 encountered 5"
 beneath exist.
 roadway prior
 to resurfacing.

CURVE DATA
 $\Delta = 15^{\circ}59'00''$
 $R = 1000.00'$
 $T = 140.39'$
 $C = 278.06'$
 $Lc = 278.96'$

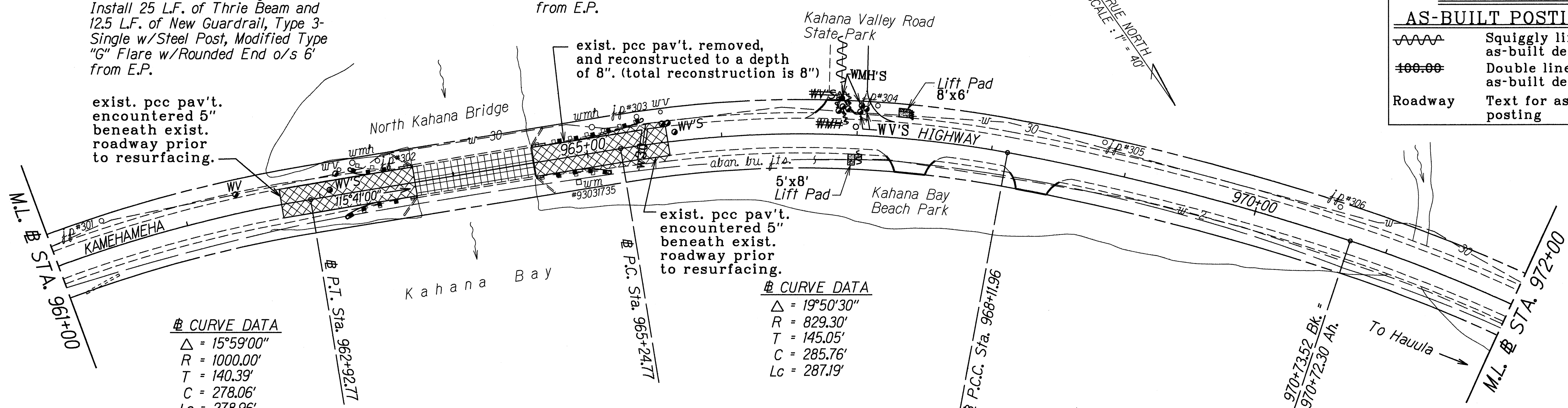
Sta. 963+16± to # Sta. 963+71± Rt.
 Remove 54 L.F. of exist. guardrail.
 Install 25 L.F. of Thrie Beam and 25 L.F.
 of New Guardrail, Type 3-Single w/Steel
 Post, Modified Type "G" Flare w/Rounded
 End o/s 7' from E.P.

Sta. 964+60± to # Sta. 965+15± Rt.
 Remove 80 L.F. of exist. guardrail.
 Install 25 L.F. of Thrie Beam and 37.5 L.F.
 of New Guardrail, Type 3-Single w/Steel
 Post, Modified Type "G" Flare w/Rounded
 End o/s 6' from E.P.

CURVE DATA
 $\Delta = 19^{\circ}50'30''$
 $R = 829.30'$
 $T = 145.05'$
 $C = 285.76'$
 $Lc = 287.19'$

CURVE DATA
 $\Delta = 08^{\circ}00'00''$
 $R = 1873.30'$
 $T = 130.99'$
 $C = 261.35'$
 $Lc = 261.56'$

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	75-14-96
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
REVISIONS	

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

ROADWAY PLAN

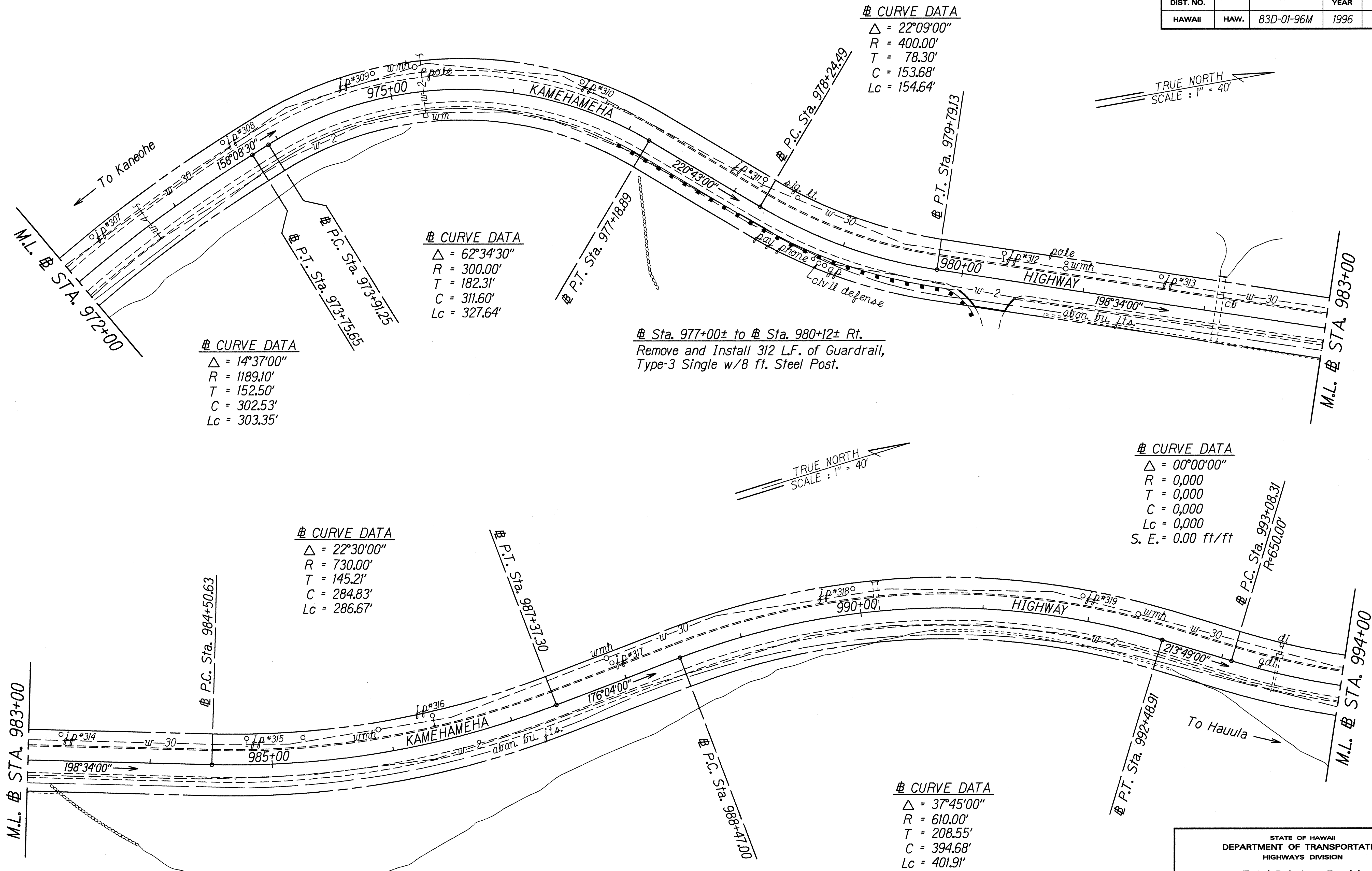
KAMEHAMEHA HIGHWAY RESURFACING
 Crouching Lion to Makao Road
 Project No. 83D-01-96M

Scale: 1" = 40' Date: May, 1996

SHEET No. 3 OF 12 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83D-01-96M	1996	11	50



ORIGINAL PLAN	DATE
DESIGNED BY	15-14-96
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

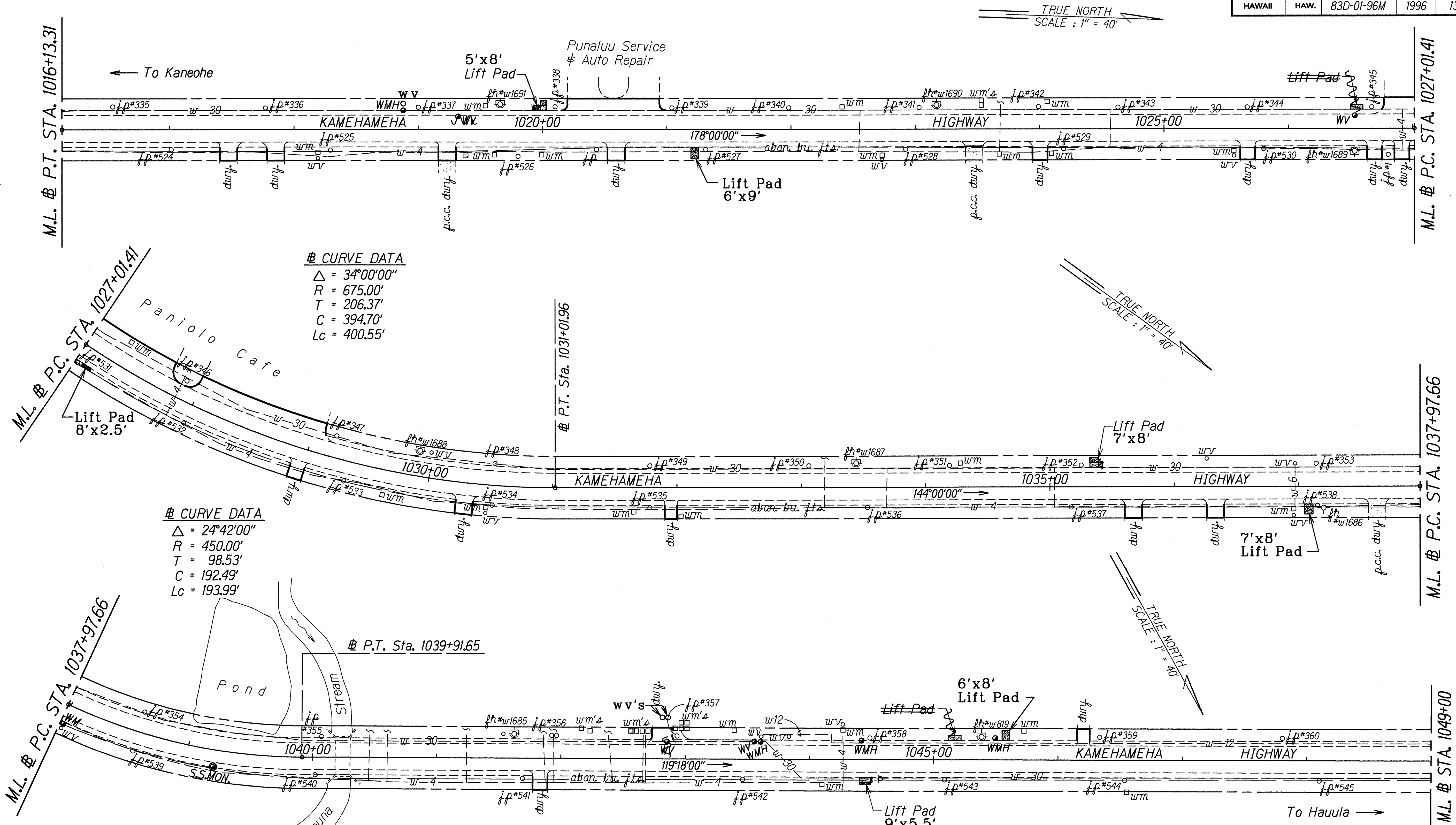
ROADWAY PLAN

KAMEHAMEHA HIGHWAY RESURFACING
Crouching Lion to Makao Road
Project No. 83D-01-96M

Scale: 1" = 40' Date: May, 1996

SHEET No. 4 OF 12 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83D-01-96M	1996	13	50



ORIGINAL PLAN	DATE	15-14-96
SURVEY PLOTTED BY		
DRAWN BY		
DESIGNED 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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

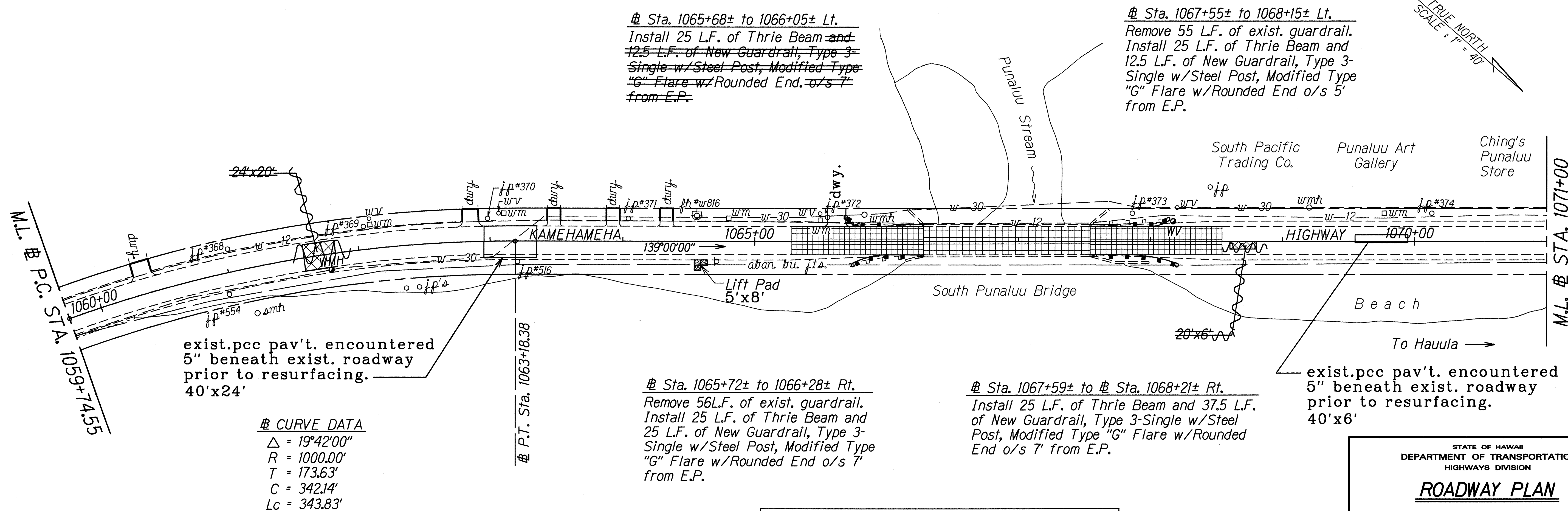
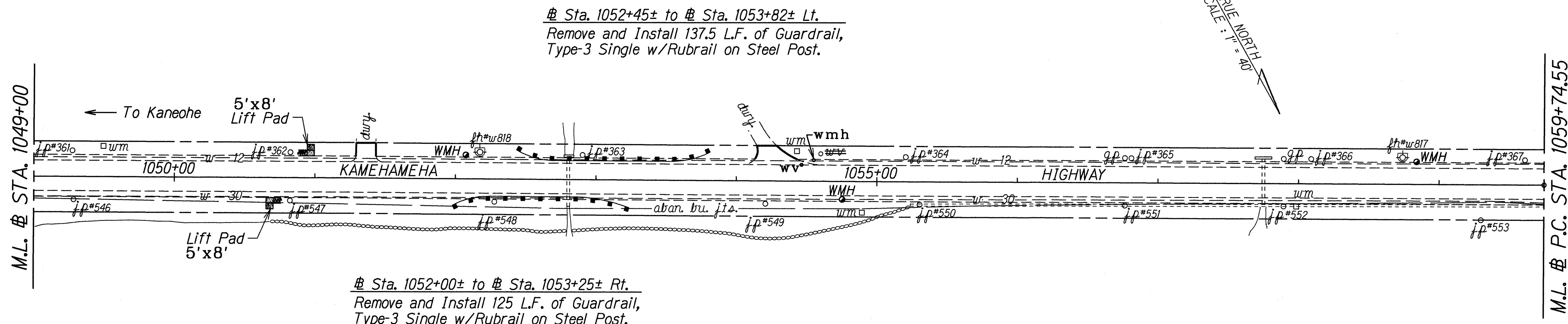
KAMEHAMEHA HIGHWAY RESURFACING
Crouching Lion to Makao Road
Project No. 83D-01-96M

Scale: 1" = 40' Date: May, 1996

SHEET No. 6 OF 12 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83D-01-96M	1996	14	50



CURVE DATA

$\Delta = 19^{\circ}42'00''$

$R = 1000.00'$

$T = 173.63'$

$C = 342.14'$

$L_c = 343.83'$

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**

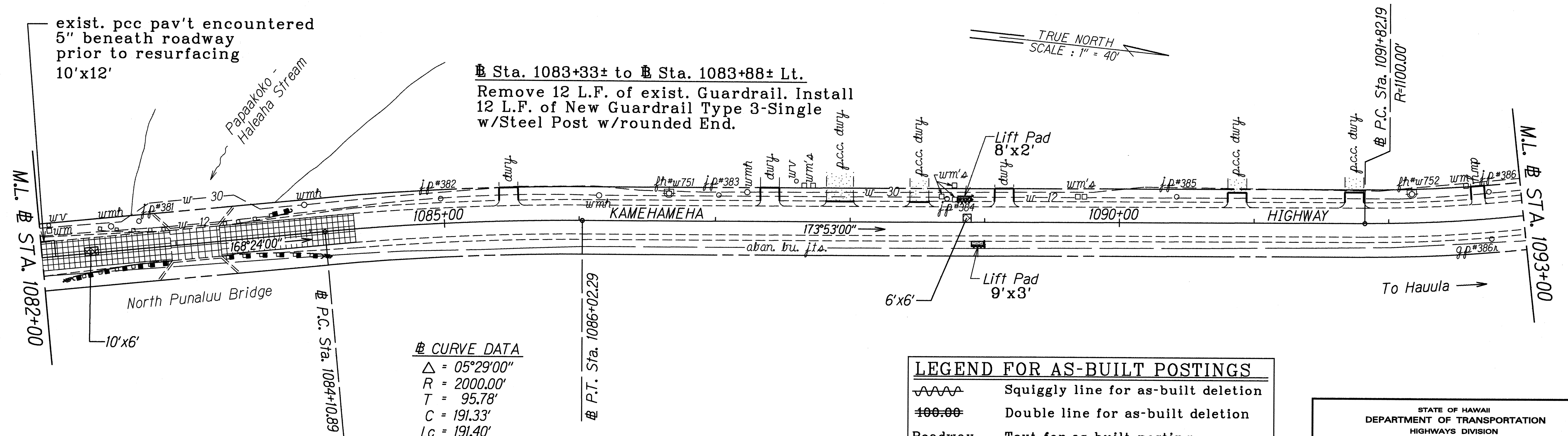
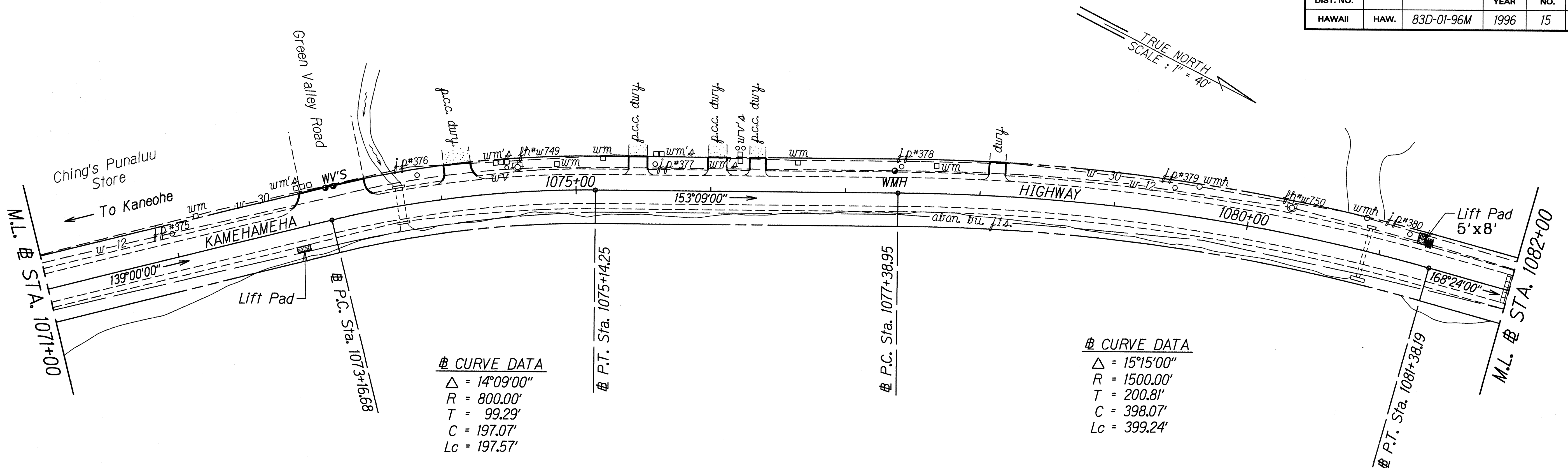
KAMEHAMEHA HIGHWAY RESURFACING  
Crouching Lion to Makao Road  
Project No. 83D-01-96M

Scale: 1" = 40' Date: May, 1996

SHEET No. 7 OF 12 SHEETS

"AS-BUILT"

| FED. ROAD DIST. NO. | STATE | PROJ. NO.  | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | 83D-01-96M | 1996        | 15        | 50           |



**Sta. 1082+16± to Sta. 1082+96± Rt..**  
 Remove 80 L.F. of exist. Guardrail. Install 25 L.F. of Thrie Beam and 50 L.F. of New Guardrail Type 3-Single w/Steel Post, Modified Type "G" Flare w/Rounded End O/S 5' from E.P.

**Sta. 1083+33± to Sta. 1084+13± Rt..**  
 Remove 80 L.F. of exist. Guardrail. Install 25 L.F. of Thrie Beam and 50 L.F. of New Guardrail Type 3-Single w/Steel Post, Modified Type "G" Flare w/Rounded End O/S 5' from E.P.

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

### ROADWAY PLAN

#### KAMEHAMEHA HIGHWAY RESURFACING

#### Crouching Lion to Makao Road

#### Project No. 83D-01-96M

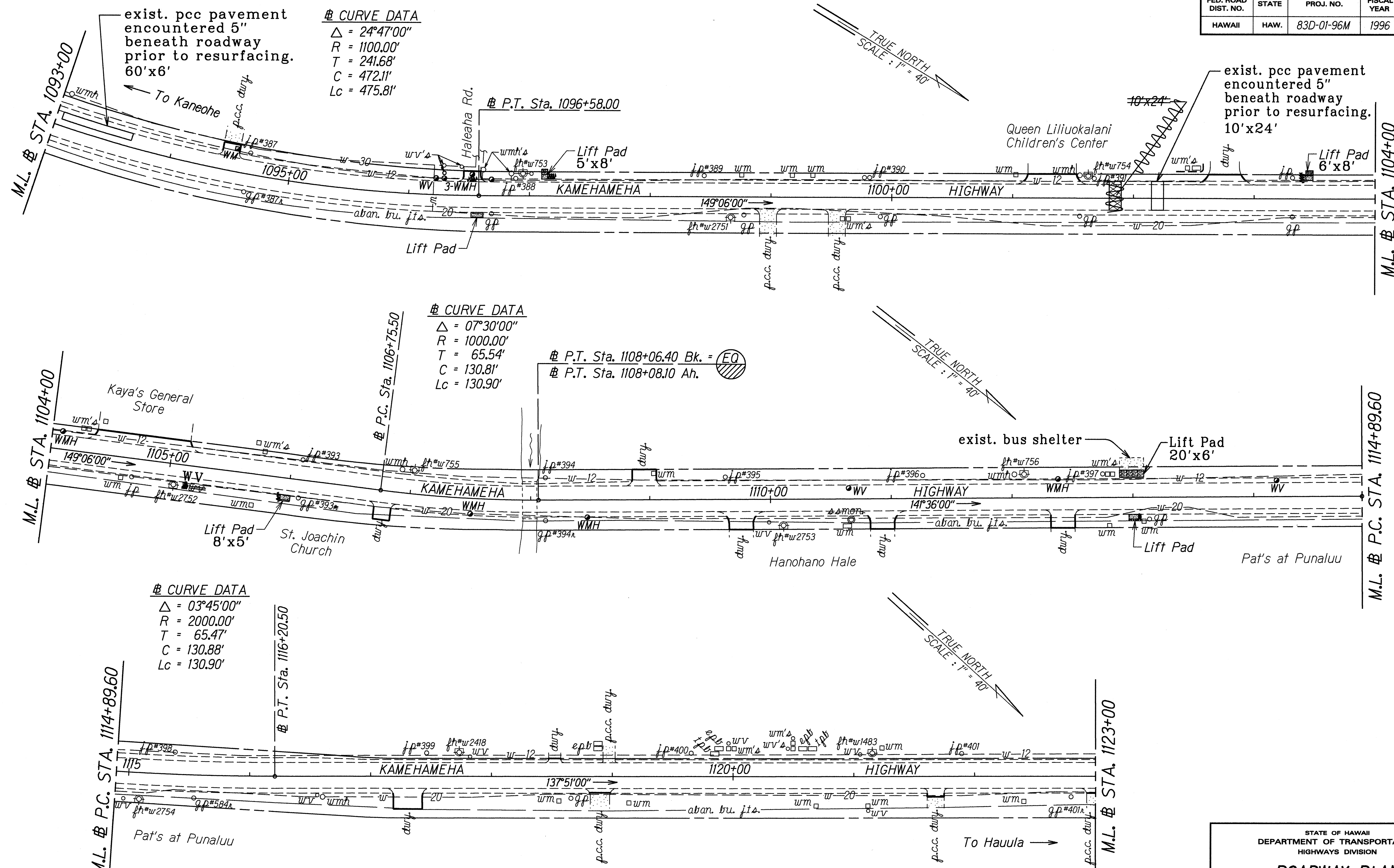
Scale: 1" = 40'  
Date: May, 1996

SHEET No. 8 OF 12 SHEETS

|               |          |
|---------------|----------|
| DESIGNED BY   | DATE     |
| DRAWN BY      | 15-14-96 |
| CHECKED BY    |          |
| NOTED BY      |          |
| QUANTITIES BY |          |
| ORIGINAL PLAN |          |

"AS-BUILT"

| FED. ROAD DIST. NO. | STATE | PROJ. NO.  | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | 83D-01-96M | 1996        | 16        | 50           |



|                           |          |
|---------------------------|----------|
| ORIGINAL PLAN             | DATE     |
| SURVEY BY: J. Matsunaga   | 15-14-96 |
| DRAWN BY: J. Matsunaga    |          |
| DESIGNED BY: J. Matsunaga |          |
| CHECKED BY: N. Nishimura  |          |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLAN**

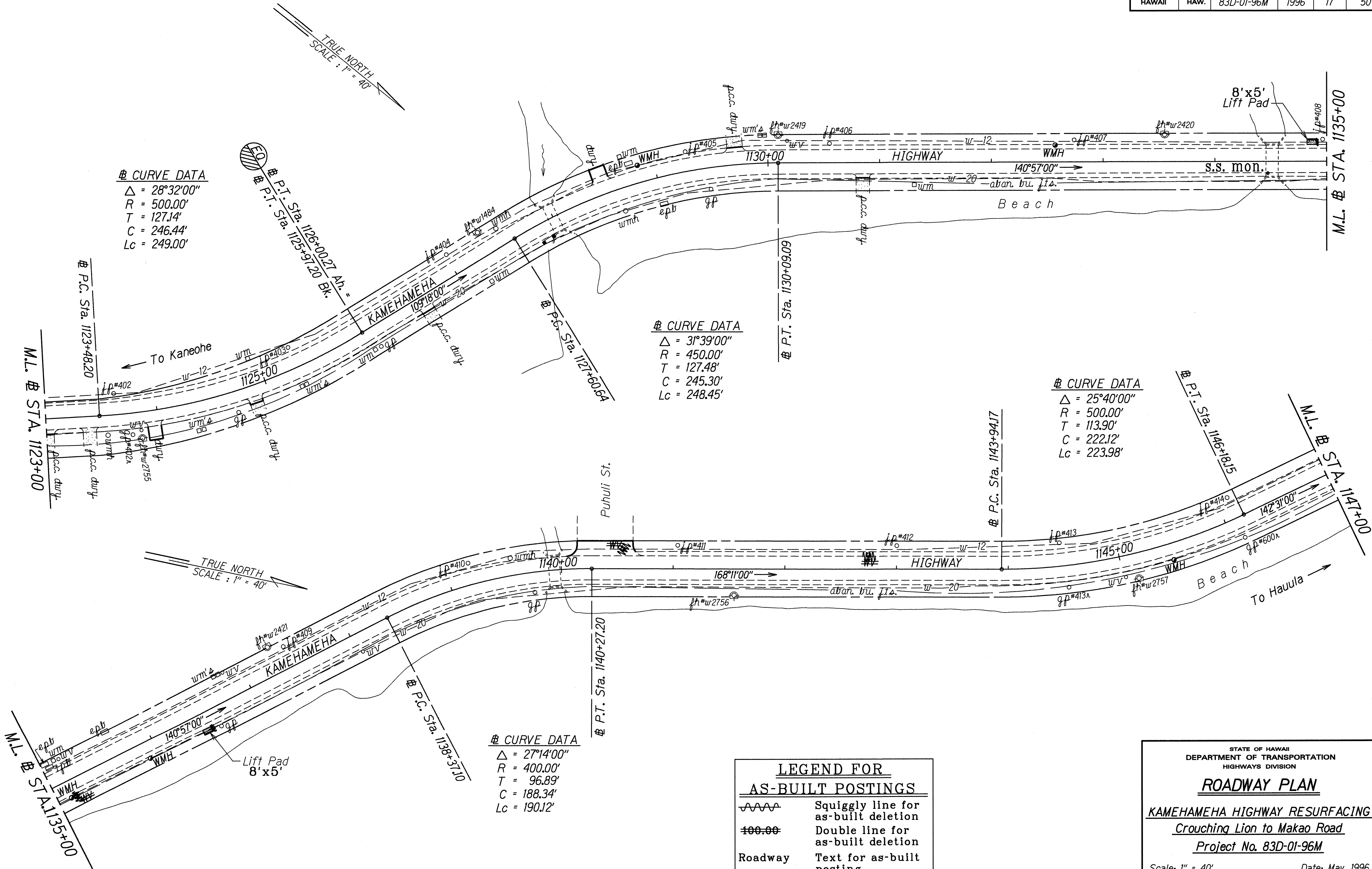
**KAMEHAMEHA HIGHWAY RESURFACING**  
 Crouching Lion to Makao Road  
 Project No. 83D-01-96M

Scale: 1" = 40' Date: May, 1996

SHEET No. 9 OF 12 SHEETS

"AS-BUILT"

| FED. ROAD DIST. NO. | STATE | PROJ. NO.  | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | 83D-01-96M | 1996        | 17        | 50           |



"AS-BUILT"

| FED. ROAD DIST. NO. | STATE | PROJ. NO.  | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | 83D-01-96M | 1996        | 18        | 50           |

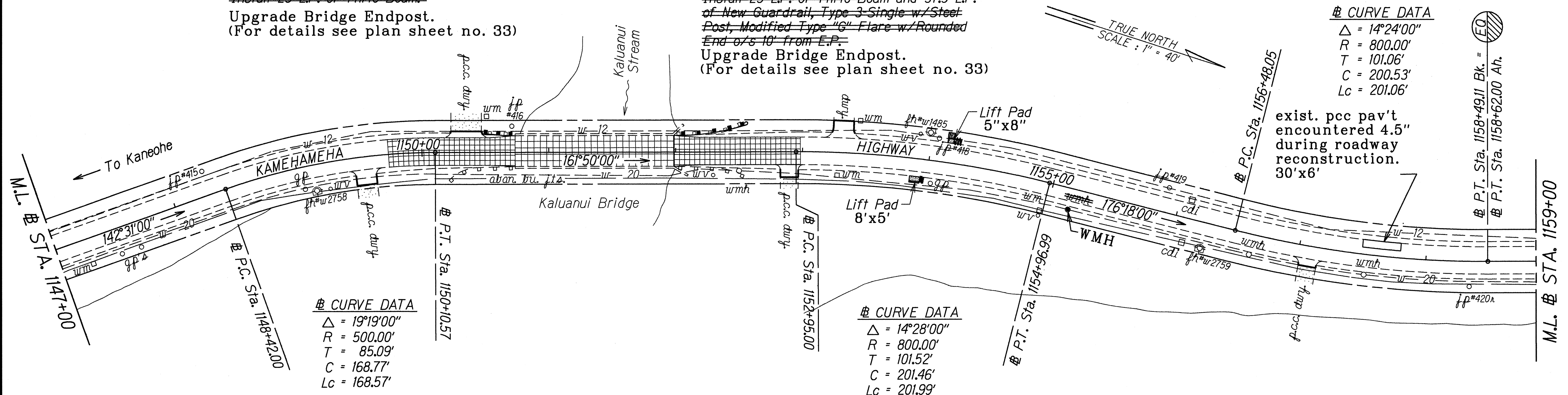
# Sta. 1150+54± to # Sta. 1150+75± Lt.  
 Remove 21 L.F. of exist. guardrail.  
 Install 25 L.F. of Thrie Beam.  
 Upgrade Bridge Endpost.  
 (For details see plan sheet no. 33)

# Sta. 1151+99± to # Sta. 1152+62± Lt.  
 Remove 54 L.F. of exist. guardrail.  
 Install 25 L.F. of Thrie Beam and 37.5 L.F. of New Guardrail, Type 3 Single w/Steel Post, Modified Type "G" Flare w/Rounded End o/s 10' from E.P.  
 Upgrade Bridge Endpost.  
 (For details see plan sheet no. 33)

# CURVE DATA  
 $\Delta = 14^{\circ}24'00''$   
 $R = 800.00'$   
 $T = 101.06'$   
 $C = 200.53'$   
 $Lc = 201.06'$

exist. pcc pav't encountered 4.5" during roadway reconstruction. 30'x6'

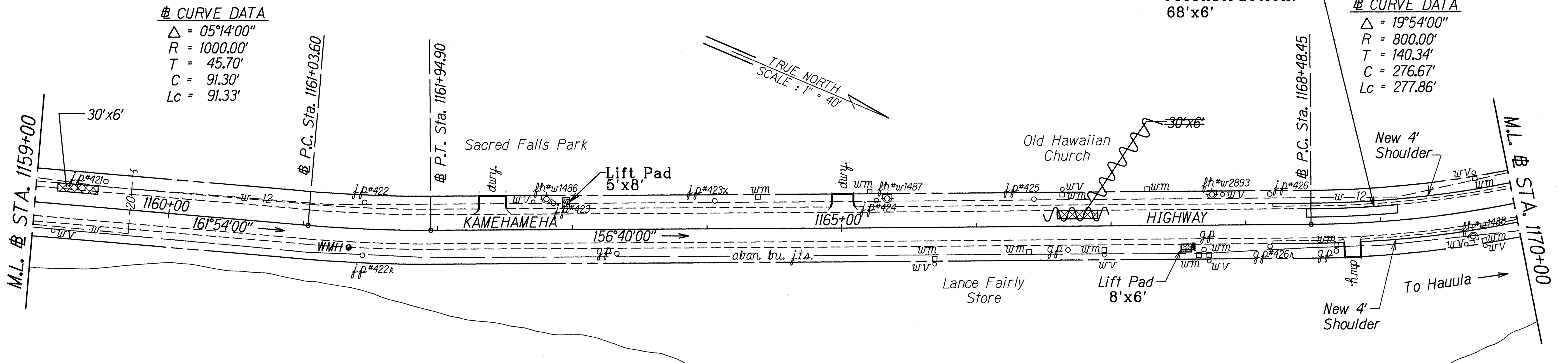
# P.T. Sta. 1158+49.11 Bk. =  
 # P.T. Sta. 1158+62.00 Ah.



# CURVE DATA  
 $\Delta = 05^{\circ}14'00''$   
 $R = 1000.00'$   
 $T = 45.70'$   
 $C = 91.30'$   
 $Lc = 91.33'$

# CURVE DATA  
 $\Delta = 19^{\circ}54'00''$   
 $R = 800.00'$   
 $T = 140.34'$   
 $C = 276.67'$   
 $Lc = 277.86'$

exist. pcc pav't encountered 4.5" during roadway reconstruction. 68'x6'



| 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**

**KAMEHAMEHA HIGHWAY RESURFACING**  
 Crouching Lion to Makao Road  
 Project No. 83D-01-96M

Scale: 1" = 40' Date: May, 1996

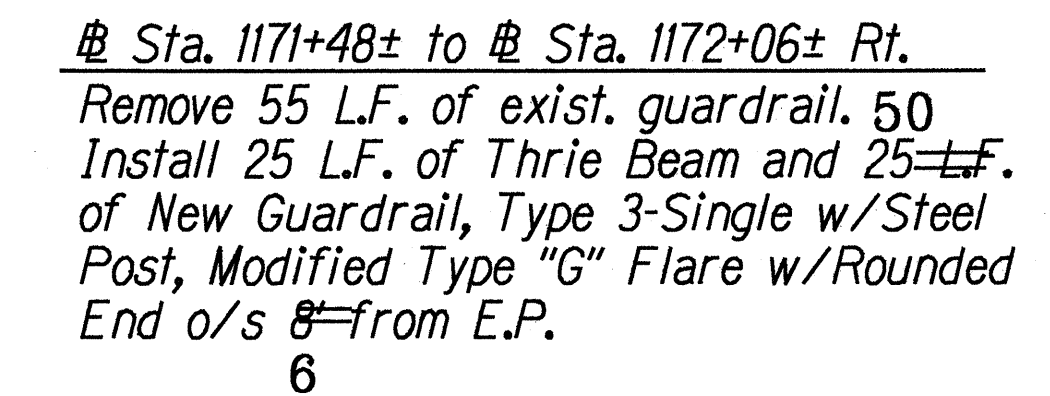
SHEET No. 11 OF 12 SHEETS

|                   |                |
|-------------------|----------------|
| ORIGINAL PLAN     | DATE           |
| SURVEY LOCATED BY | 15-14-96       |
| DRAWN BY          | J. Matsunaga   |
| NOTED BY          | J. Ng          |
| DESIGNED BY       | J. Ng          |
| CHECKED BY        | N. Kamehiguchi |

"AS-BUILT"

Stn. 1171+81± to Stn. 1172+06± Lt.  
Remove ~~18~~ L.F. of exist. guardrail.  
Install ~~25~~ L.F. of Thrie Beam.  
12 ———  
Upgrade Bridge Endpost  
(For details see Plan Sheet No.34).

⌘ CURVE DATA  
 $\Delta = 06^{\circ}35'00''$   
 $R = 800.00'$   
 $T = 46.01'$   
 $C = 91.86'$   
 $Lc = 91.92'$

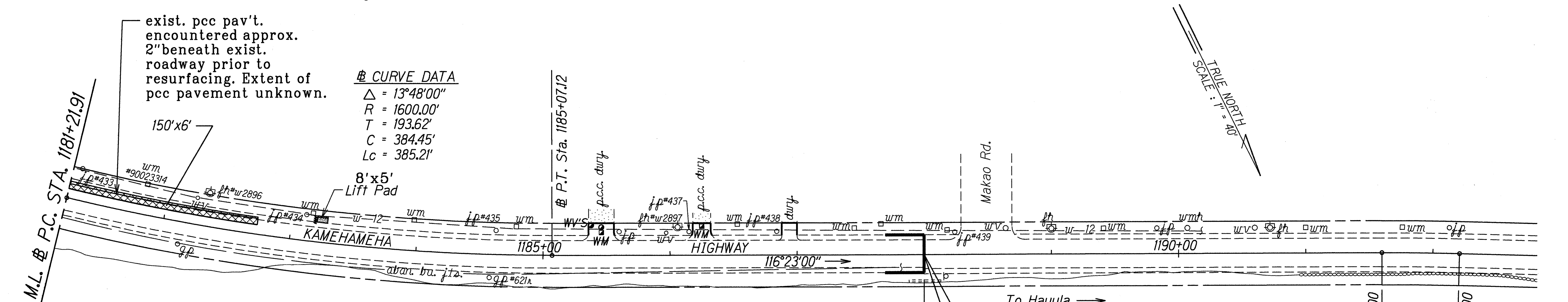


31

# Sta. 1172+76± to # Sta. 1173+34±=Rt.  
Remove 55 L.F. of exist. guardrail.  
Install 25 L.F. of Thrie Beam and 25 L.F.  
of New Guardrail, Type 3-Single w/Steel  
Post, Modified Type "G" Flare w/Rounded  
End o/s ~~9'~~ from E.P.

6

exist. pcc pav't. encountered 8"  
at Waimanana Bridge end posts  
3 & 4. Extent of pav't. unknown.



# CURVE DATA  
 $\Delta = 13^{\circ}48'00''$   
 $R = 1600.00'$   
 $T = 193.62'$   
 $C = 384.45'$   
 $Lc = 385.21'$

§ CURVE DATA  
 $\Delta = 01^{\circ}45'00''$   
 $R = 2000.00'$   
 $T = 30.55'$   
 $C = 61.08'$   
 $Lc = 61.08'$

# Sta. 1187+50 to # Sta. 1188+00  
Saw Cut and Remove exist. a.c.  
pavement, mix no. IV, 50' Taper  
prior to resurfacing and Provide  
a smooth riding connection.

END PROJECT  
Project No. 83D-01-96M  
Sta. 1188+00

|                  |                              |                 |
|------------------|------------------------------|-----------------|
| ORIGINAL PLAN    | SURVEY PLOTTED BY            | DATE            |
| NOTE BOOK        | DRAWN BY <i>J. Matsunami</i> | <i>15-14-96</i> |
| <i>dd4,jason</i> | DESIGNED BY                  |                 |
| <i>nkandip2</i>  | TRACED BY <i>K. Ng</i>       |                 |
|                  | QUANTITIES BY                |                 |
|                  | CHECKED BY                   |                 |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLAN**

KAMEHAMEHA HIGHWAY RESURFACING  
Crouching Lion to Makao Road  
Project No. 83D-01-96M

Scale: 1" = 40'      Date: May, 1996

SHEET No. 12 OF 12 SHEETS