

TRUE NORTH
SCALE: 1" = 40'

STA. 660+75
BEGIN PROJECT

LIPOA ST.

ST. MON

665+00

350'30"36"

2136.68'

PIILANI HWY

670+00

STA. 672+00
MATCHLINE
SEE BELOW

STATE R.O.W.

CLEAN, REMOVE, AND DISPOSE OF SILT, TRASH, AND VEGETATION GROWTH FROM EXIST. DRAINAGE FACILITIES

RECONSTRUCT EXIST. PAVEMENT (40'x11') (5-3/4" THICK)

FILL EXIST. 1'x1' POTHOLE

FILL EXIST. 2'x2' POTHOLE

STA. 669+79±
CLEAN, REMOVE, AND DISPOSE OF SILT, TRASH, AND VEGETATION GROWTH FROM EXIST. CULVERT

LIMITS OF RESURFACING, TYP.

STA. 661+78±
CLEAN, REMOVE, AND DISPOSE OF SILT, TRASH, AND VEGETATION GROWTH FROM EXIST. CULVERT

RESURFACING PLAN - 1 (@ STA. 660+75 TO @ STA. 672+00)
Scale: 1"=40'

TRUE NORTH
SCALE: 1" = 40'

STA. 672+00
MATCHLINE
SEE ABOVE

Guardrails

675+00

PIILANI HWY

680+00

ST. MON

STA. 683+00
MATCHLINE
SEE SHEET C-6

STATE R.O.W.

LIMITS OF RESURFACING, TYP.

STA. 675+03±
CLEAN, REMOVE, AND DISPOSE OF SILT, TRASH, AND VEGETATION GROWTH FROM EXIST. CULVERT

@ CURVE DATA
Δ = 13°23'18"
Δ/2 = 6°41'39"
R = 7000.00'
T = 821.59'
C = 1631.98'
Lc = 1635.69'

RESURFACING PLAN - 1 (@ STA. 672+00 TO @ STA. 683+00)
Scale: 1"=40'

NOTES:
1. REMOVE VEGETATION GROWTH FRONTING DRAINAGE CULVERTS WITHIN THE STATE RIGHT OF WAY.
2. THE CONTRACTOR SHALL CLEAN, REMOVE, AND DISPOSE OF SILT, TRASH, AND VEGETATION GROWTH FROM EXISTING DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS OF THE STATE RIGHT OF WAY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY DAMAGED TRAFFIC CONTROL LOOPS.

GRAPHIC SCALE
1" = 40' 40' 20' 0 40' 80'

SCOTT A. KUMOKA
LICENSED PROFESSIONAL ENGINEER
No. 7257-C
HAWAII, U.S.A.

LICENSE EXPIRATION DATE: 4/30/10
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
SHIMABUKURO, ENDO & YOSHIZAKI, INC.
1126 12TH AVENUE
HONOLULU, HAWAII 96816

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ARR-031-1 (11)	2009	APP. 7	31

DATE	REVISION
6/03/09	REVISED LIMITS OF RESURFACING

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RESURFACING PLAN-1
(@ STA. 660+75 TO @ STA. 683+00)
PIILANI HIGHWAY PAVEMENT PREVENTIVE MAINTENANCE, LIPOA ST. TO KILOHANA DR.
Fed. Aid Project No. ARR-031-1 (11)
Scale: 1" = 40' Date: JUNE 2009

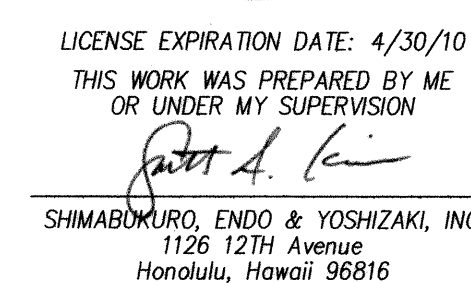
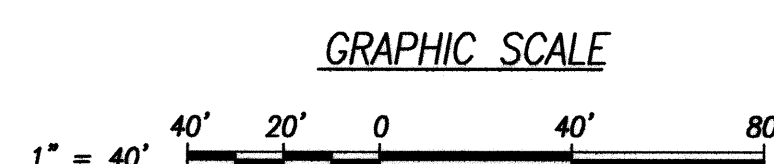
SHEET No. C-5 OF 31 SHEETS

ADD. 7

TRUE NORTH
SCALE: 1" = 40'



1. REMOVE VEGETATION GROWTH FRONTING DRAINAGE CULVERTS WITHIN THE STATE RIGHT OF WAY.
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RESURFACING PLAN-2

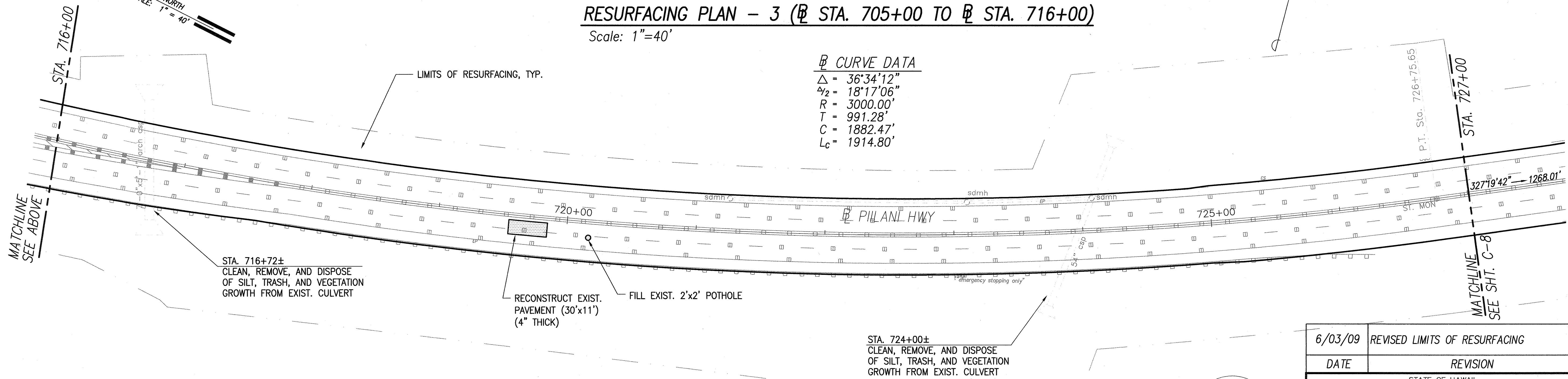
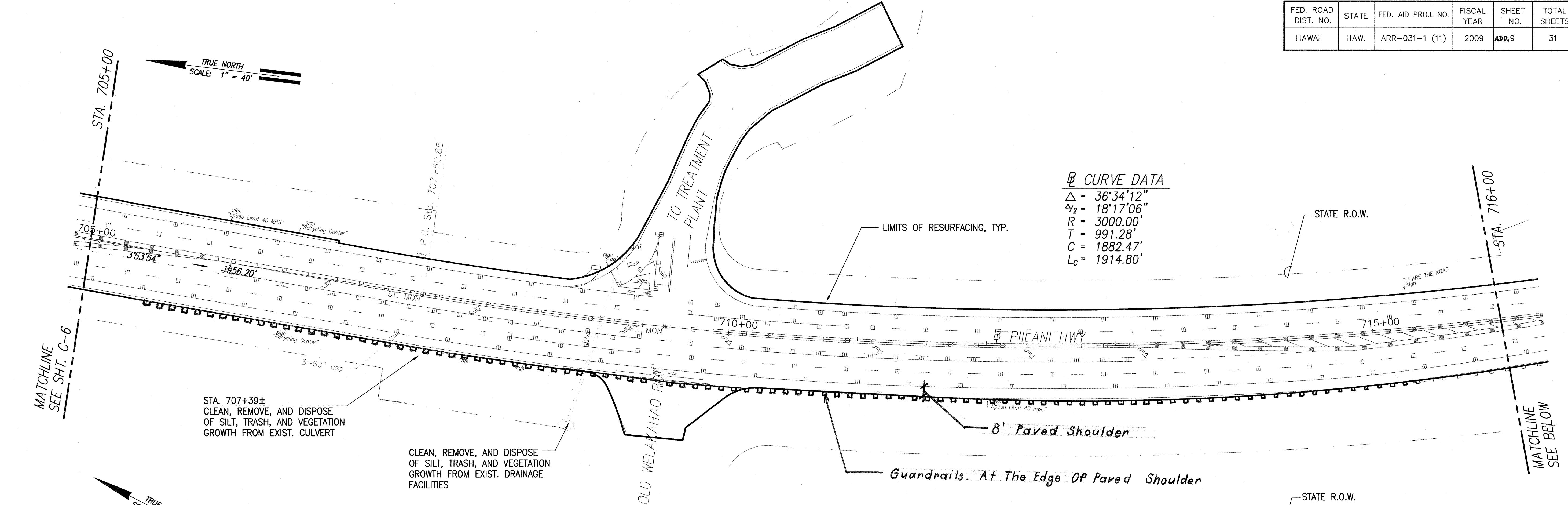
(@ STA. 683+00 TO @ STA. 705+00)

PIILANI HIGHWAY PAVEMENT PREVENTIVE
MAINTENANCE, LIPOA ST. TO KILOHANA DR.
Fed. Aid Project No. ARR-031-1 (11)

Scale: 1" = 40' Date: APRIL 2009

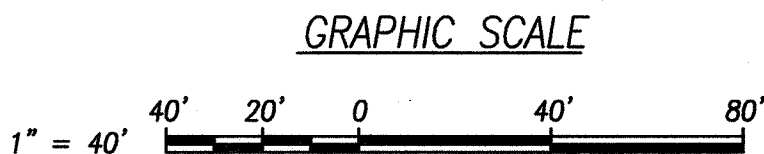
SHEET No. C-6 OF 31 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ARR-031-1 (11)	2009	ADD. 9	31



- NOTES:
1. REMOVE VEGETATION GROWTH FRONTING DRAINAGE CULVERTS WITHIN THE STATE RIGHT OF WAY.
 2. THE CONTRACTOR SHALL CLEAN, REMOVE, AND DISPOSE OF SILT, TRASH, AND VEGETATION GROWTH FROM EXISTING DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS OF THE STATE RIGHT OF WAY.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY DAMAGED TRAFFIC CONTROL LOOPS.

SURVEY PLOTTED BY	DATE
DRAWN BY C.E.	
TRACED BY	
DESIGNED BY S.K.	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	No.



SCOTT A. KUNIOKA
LICENSED PROFESSIONAL ENGINEER
No. 7257-C
HAWAII, U.S.A.

LICENSE EXPIRATION DATE: 4/30/10
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SHIMABUKURO, ENDO & YOSHIZAKI, INC.
1126 12TH AVENUE
HONOLULU, HAWAII 96816

6/03/09	REVISED LIMITS OF RESURFACING
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RESURFACING PLAN-3
(Sta. 705+00 TO Sta. 727+00)

PILANI HIGHWAY PAVEMENT PREVENTIVE
MAINTENANCE, LIPOA ST. TO KILOHANA DR.

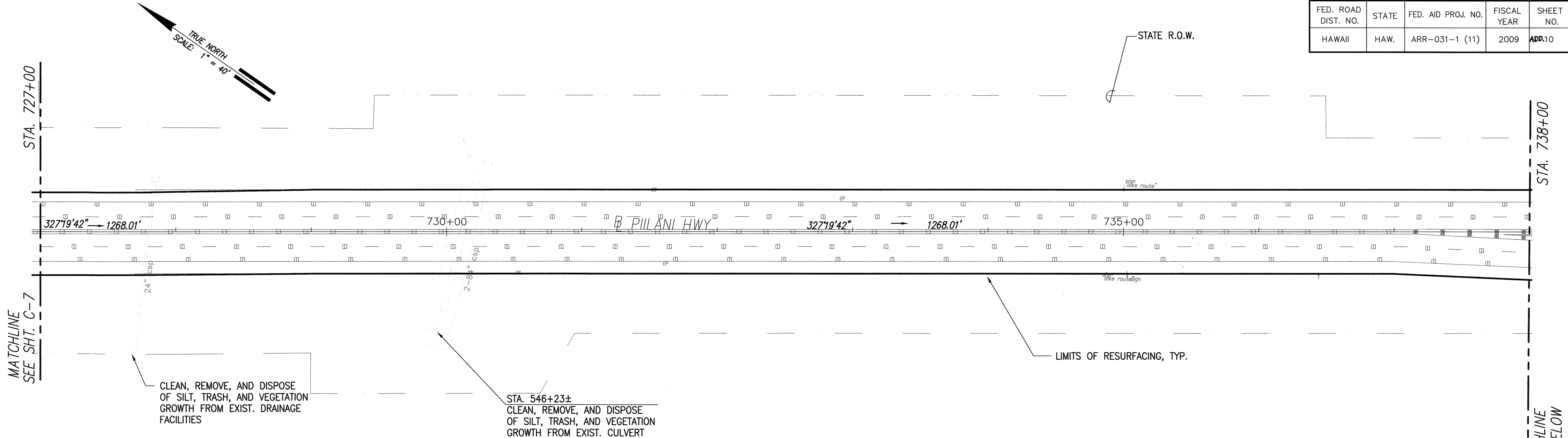
Fed. Aid Project No. ARR-031-1 (11)

Scale: 1" = 40' Date: JUNE 2009

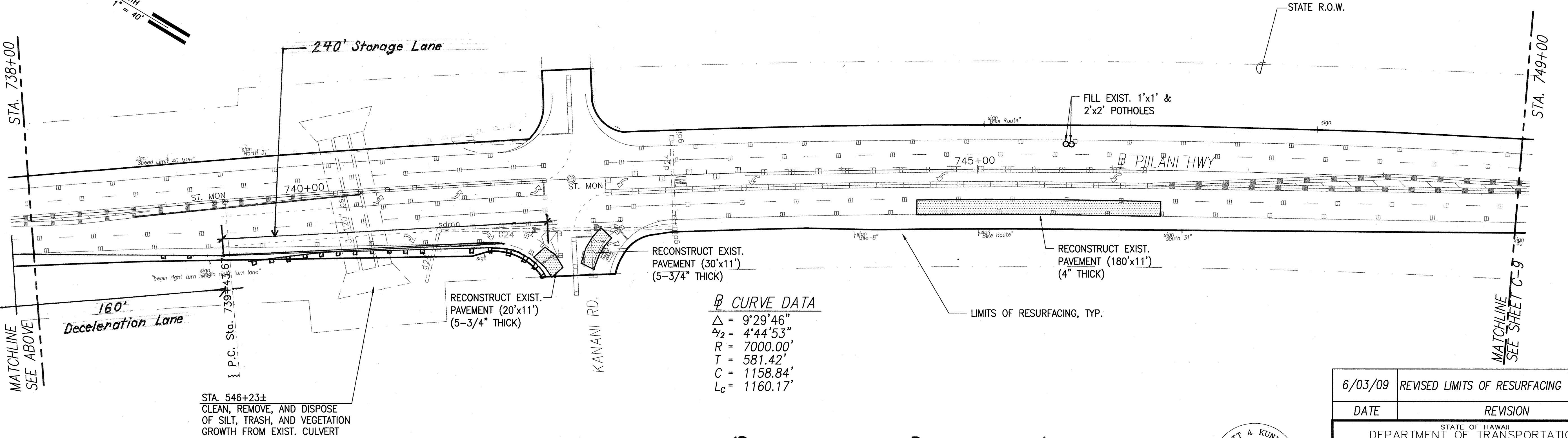
SHEET No. C-7 OF 31 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ARR-031-1 (11)	2009	ADD.10	31

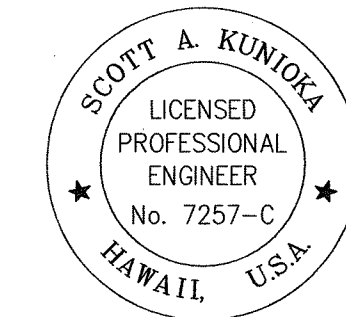
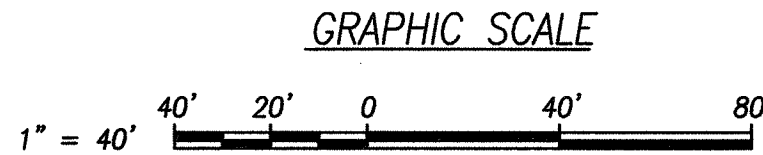


RESURFACING PLAN - 4 (Sta. 727+00 TO Sta. 738+00)
Scale: 1"=40'



RESURFACING PLAN - 4 (Sta. 738+00 TO Sta. 749+00)
Scale: 1"=40'

- NOTES:
1. REMOVE VEGETATION GROWTH FRONTING DRAINAGE CULVERTS WITHIN THE STATE RIGHT OF WAY.
 2. THE CONTRACTOR SHALL CLEAN, REMOVE, AND DISPOSE OF SILT, TRASH, AND VEGETATION GROWTH FROM EXISTING DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS OF THE STATE RIGHT OF WAY.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY DAMAGED TRAFFIC CONTROL LOOPS.



LICENSE EXPIRATION DATE: 4/30/10
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
SHIMABUKURO, ENDO & YOSHIKAWA, INC.
1126 12TH AVENUE
HONOLULU, HAWAII 96816

6/03/09	REVISED LIMITS OF RESURFACING
DATE	REVISION

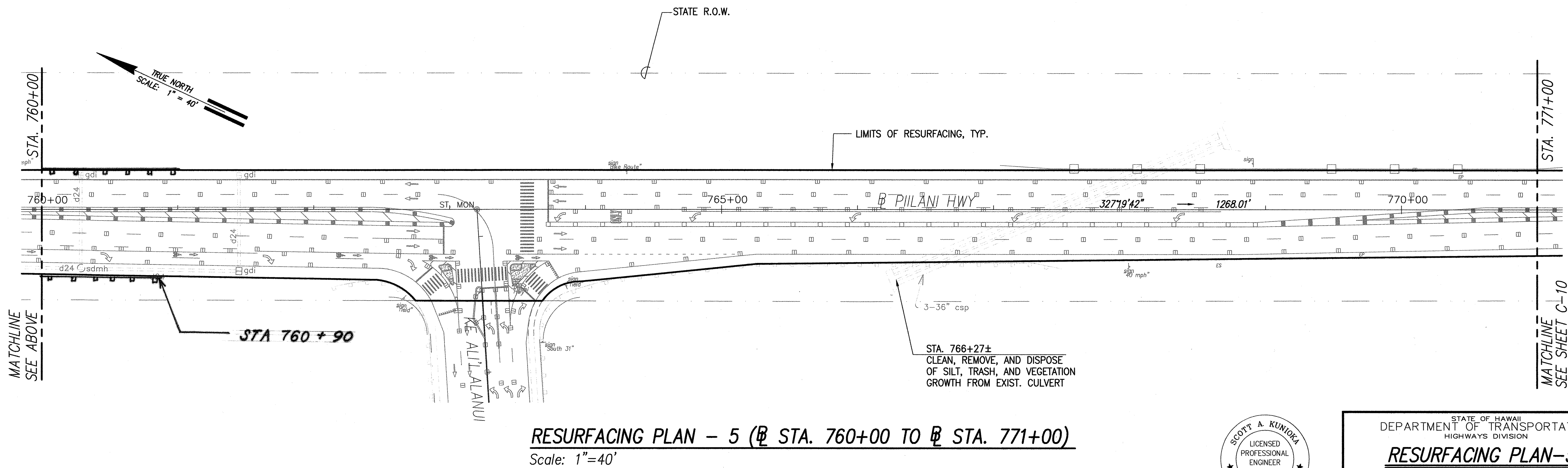
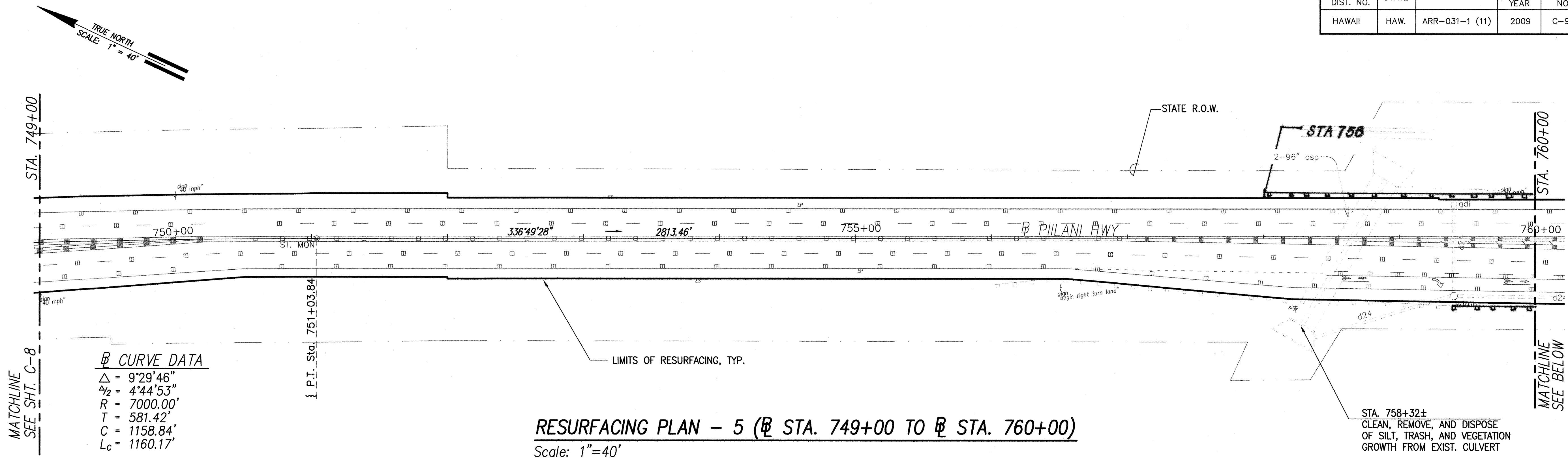
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RESURFACING PLAN-4
(Sta. 727+00 TO Sta. 749+00)

PIILANI HIGHWAY PAVEMENT PREVENTIVE
MAINTENANCE, LIPOA ST. TO KILOHANA DR.
Fed. Aid Project No. ARR-031-1 (11)
Scale: 1" = 40' Date: JUNE 2009

SHEET No. C-8 OF 31 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ARR-031-1 (11)	2009	C-9	31



- NOTES:
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 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY DAMAGED TRAFFIC CONTROL LOOPS.

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

SCOTT A. KUNIOKA
 LICENSED PROFESSIONAL ENGINEER
 No. 7257-C
 HAWAII, U.S.A.

LICENSE EXPIRATION DATE: 4/30/10
 THIS WORK WAS PREPARED BY ME
 OR UNDER MY SUPERVISION

SHIMABUKURO, ENDO & YOSHIKAWA, INC.
 1126 12TH Avenue
 Honolulu, Hawaii 96816

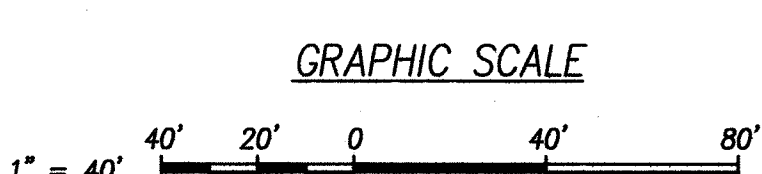
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

RESURFACING PLAN-5
(Sta. 749+00 TO Sta. 771+00)

PIILANI HIGHWAY PAVEMENT PREVENTIVE
 MAINTENANCE, LIPOA ST. TO KIOHANA DR.

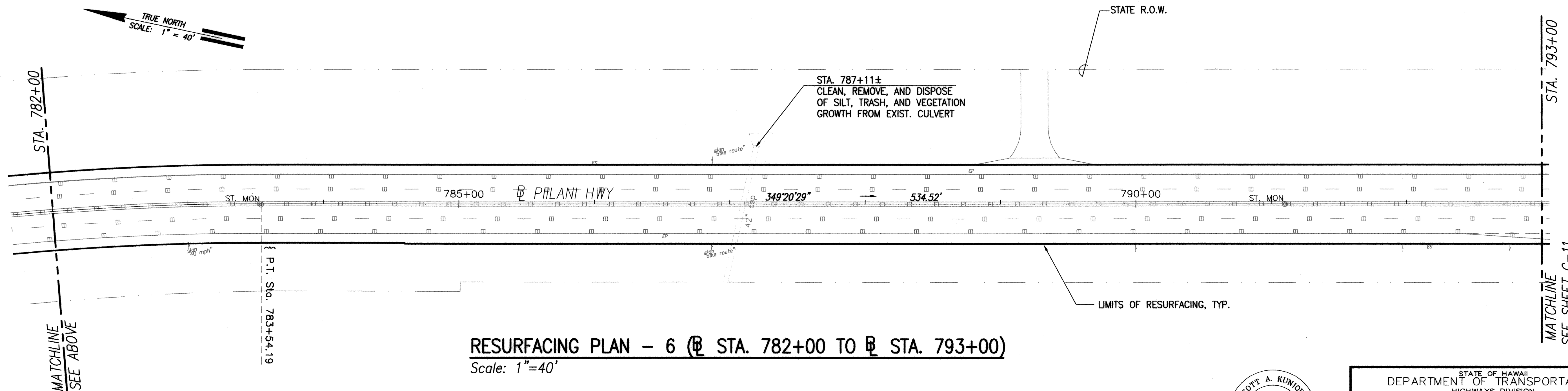
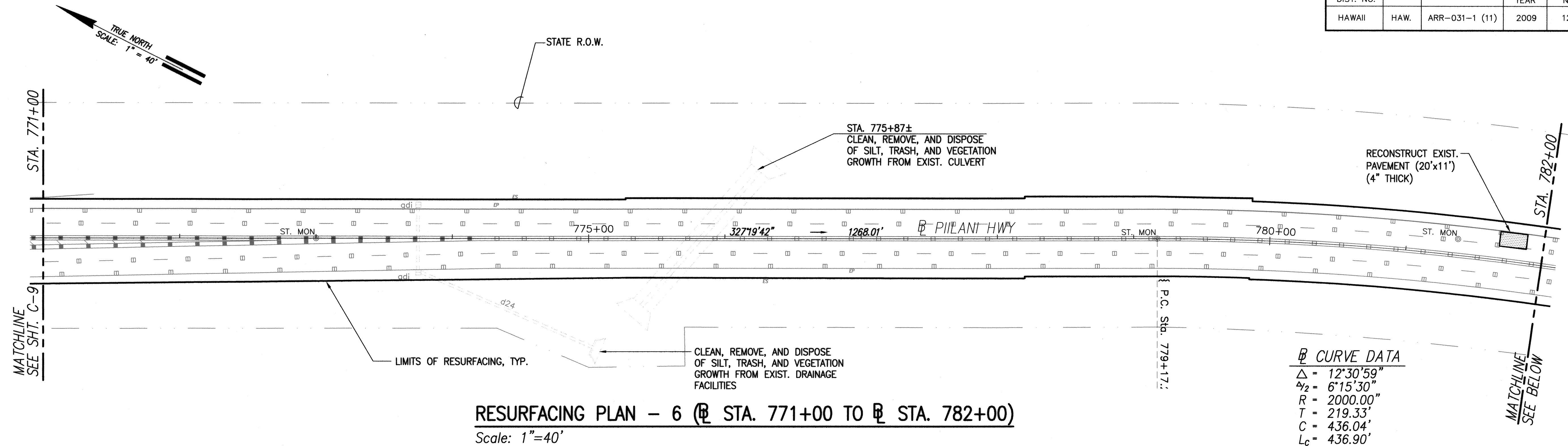
Fed. Aid Project No. ARR-031-1 (11)
 Scale: 1" = 40' Date: APRIL 2009

SHEET No. C-9 OF 31 SHEETS



"AS-BUILT"

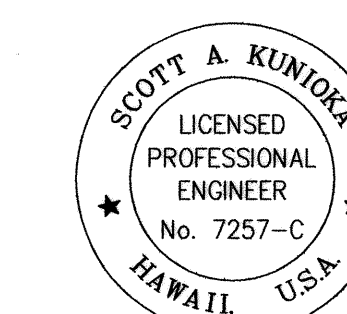
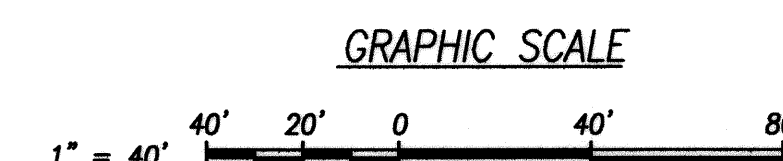
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ARR-031-1 (11)	2009	12	31



NOTES:

1. REMOVE VEGETATION GROWTH FRONTING DRAINAGE CULVERTS WITHIN THE STATE RIGHT OF WAY.
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3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY DAMAGED TRAFFIC CONTROL LOOPS.

SURVEY PLANNED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



LICENSE EXPIRATION DATE: 4/30/10
 THIS WORK WAS PREPARED BY ME
 OR UNDER MY SUPERVISION
 SHIMABUKURO, ENDO & YOSHIZAKI, INC.
 1126 12TH Avenue
 Honolulu, Hawaii 96816

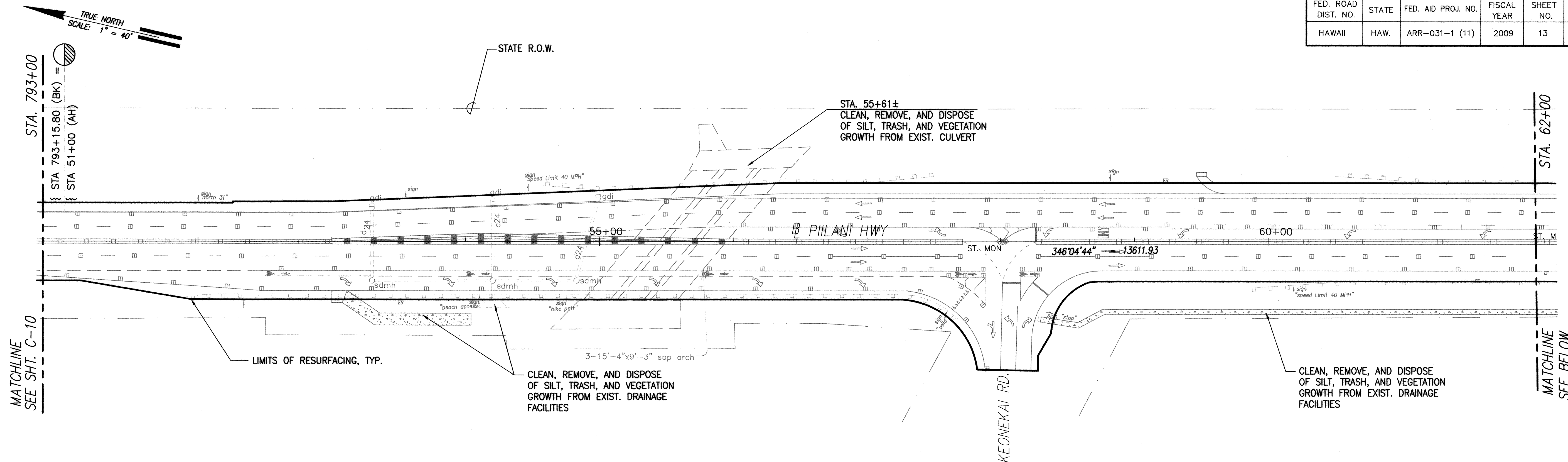
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RESURFACING PLAN-6
(Sta. 771+00 TO Sta. 793+00)

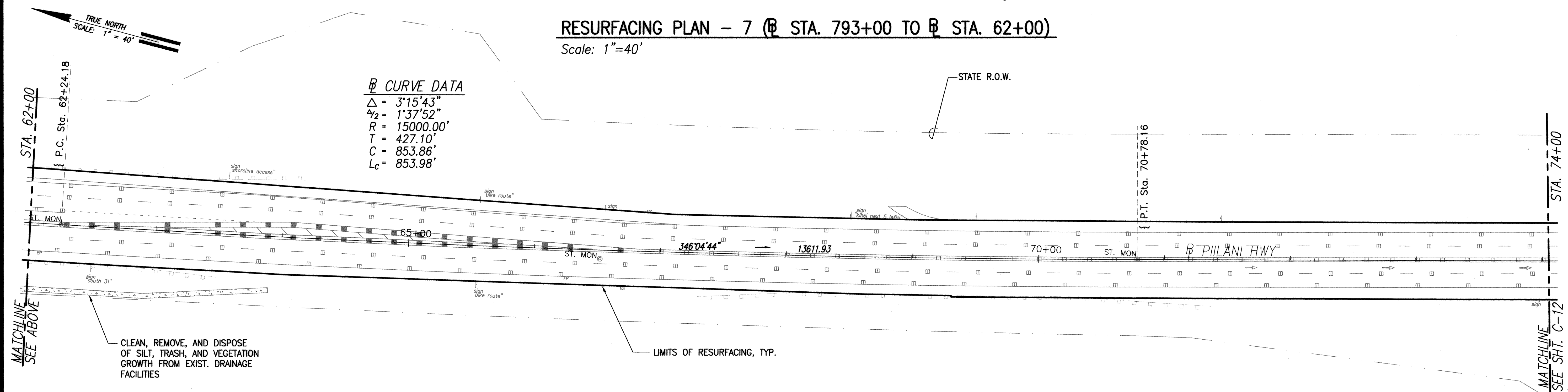
PILANI HIGHWAY PAVEMENT PREVENTIVE
 MAINTENANCE, LIPOA ST. TO KILOHANA DR.
 Fed. Aid Project No. ARR-031-1 (11)
 Scale: 1" = 40' Date: APRIL 2009

SHEET No. C-10 OF 31 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ARR-031-1 (11)	2009	13	31



RESURFACING PLAN - 7 (Sta. 793+00 TO Sta. 62+00)
Scale: 1"=40'



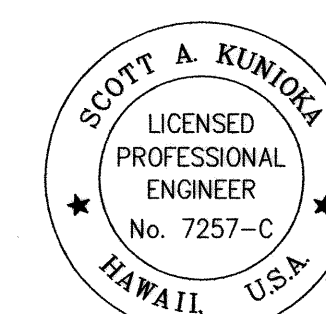
Curve Data
 $\Delta = 3'15'43''$
 $\frac{1}{2} = 1'37'52''$
 $R = 15000.00'$
 $T = 427.10'$
 $C = 853.86'$
 $L_c = 853.98'$

RESURFACING PLAN - 7 (Sta. 62+00 TO Sta. 74+00)
Scale: 1"=40'

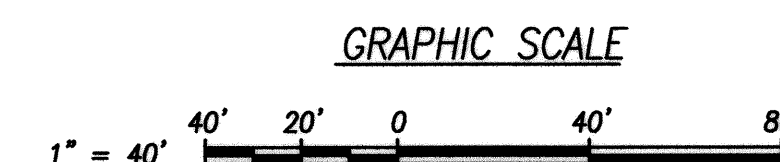
NOTES:

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3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY DAMAGED TRAFFIC CONTROL LOOPS.

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



LICENSE EXPIRATION DATE: 4/30/10
 THIS WORK WAS PREPARED BY ME
 OR UNDER MY SUPERVISION
 SHIMABUKURO, ENDO & YOSHIKAWA, INC.
 1126 12TH Avenue
 Honolulu, Hawaii 96816



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

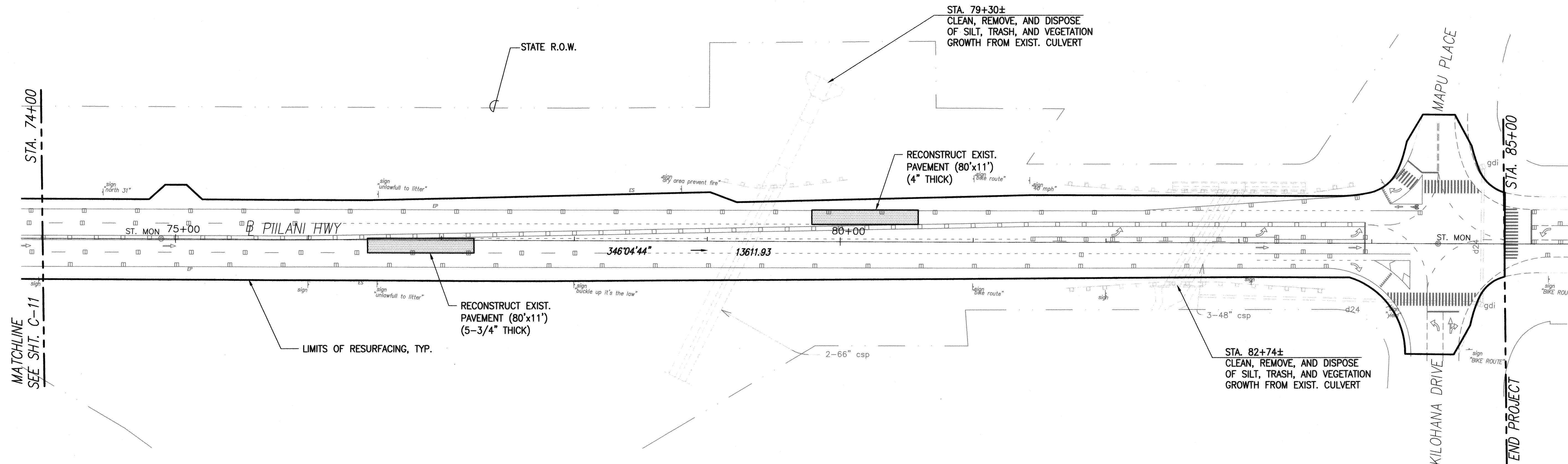
RESURFACING PLAN-7
(Sta. 793+00 TO Sta. 74+00)

PIILANI HIGHWAY PAVEMENT PREVENTIVE
MAINTENANCE, LIPOA ST. TO KILOHANA DR.

Fed. Aid Project No. ARR-031-1 (11)
Scale: 1" = 40' Date: APRIL 2009

SHEET No. C-11 OF 31 SHEETS

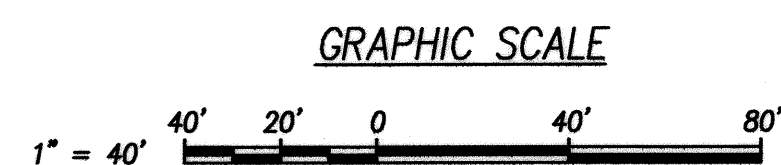
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ARR-031-1 (11)	2009	14	31

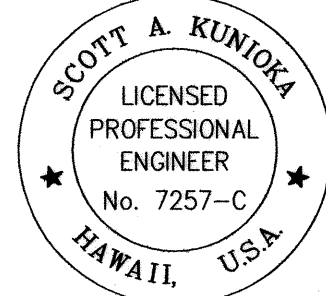


RESURFACING PLAN – 8 (@ STA. 74+00 TO @ STA. 85+00)
 Scale: 1"=40'

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
DESIGNED BY S.K.	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

- NOTES:
1. REMOVE VEGETATION GROWTH FRONTING DRAINAGE CULVERTS WITHIN THE STATE RIGHT OF WAY.
 2. THE CONTRACTOR SHALL CLEAN, REMOVE, AND DISPOSE OF SILT, TRASH, AND VEGETATION GROWTH FROM EXISTING DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS OF THE STATE RIGHT OF WAY.
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LICENSE EXPIRATION DATE: 4/30/10
 THIS WORK WAS PREPARED BY ME
 OR UNDER MY SUPERVISION
Scott A. Kunioka
 SHIMABUKURO, ENDO & YOSHIZAKI, INC.
 1126 12TH Avenue
 Honolulu, Hawaii 96816

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RESURFACING PLAN-8
(@ STA. 74+00 TO @ STA. 85+00)

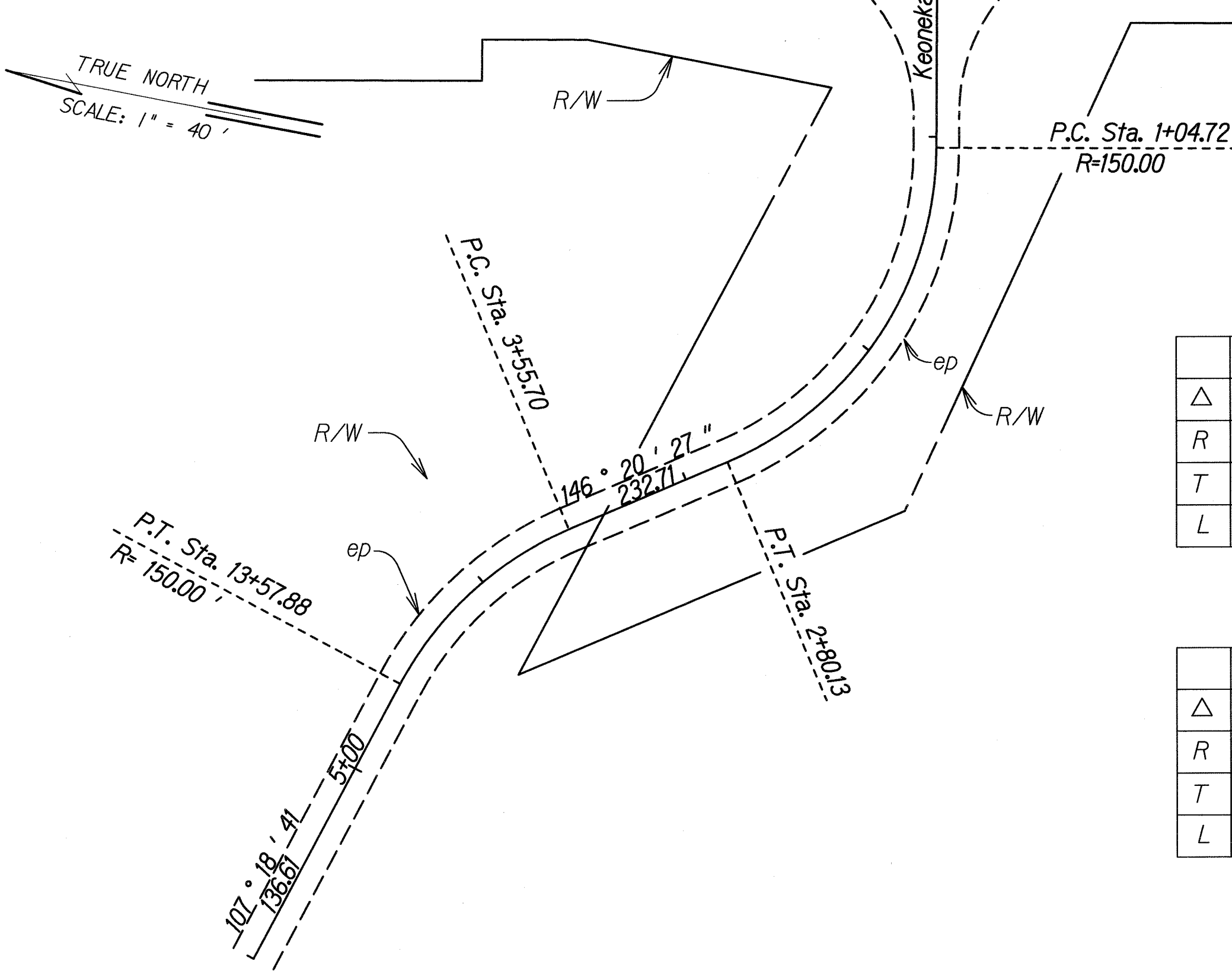
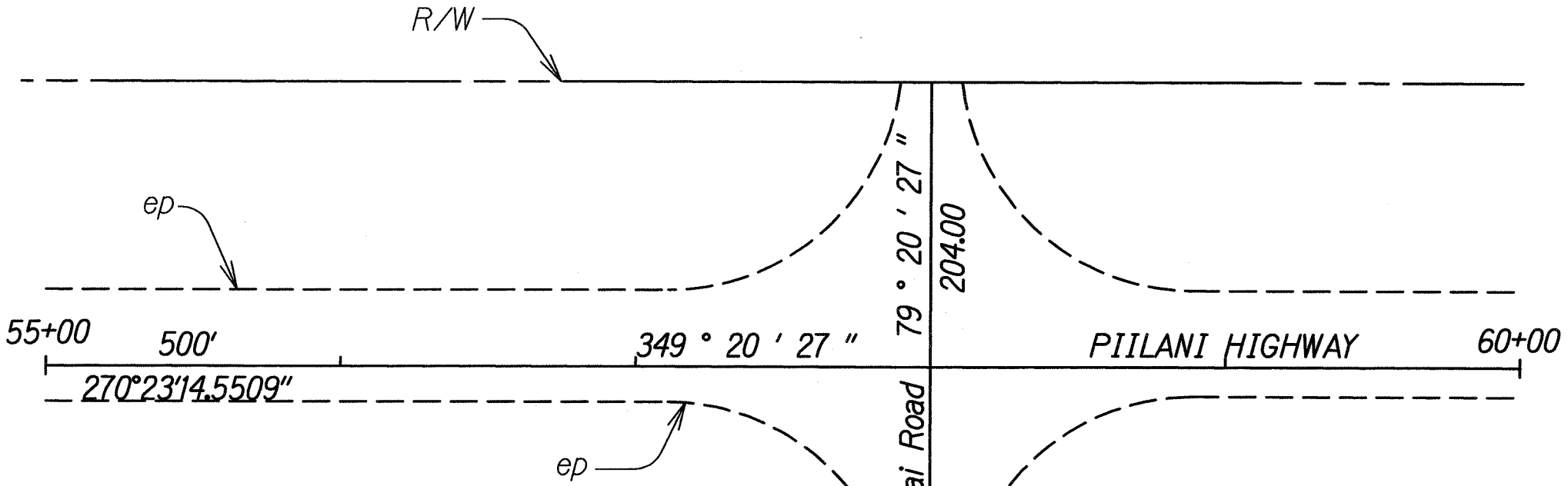
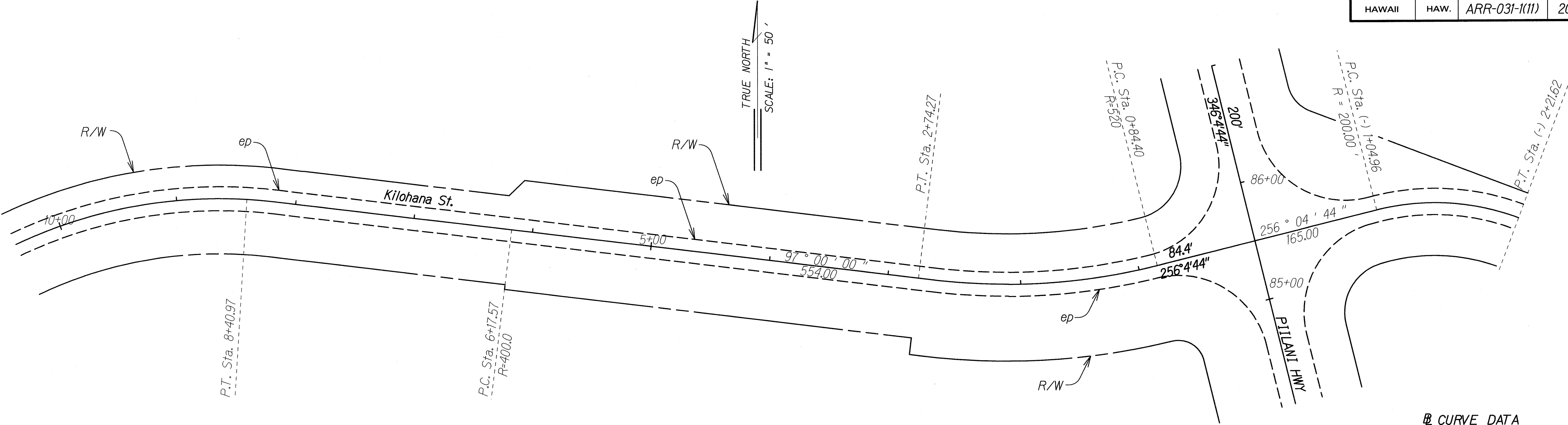
PIILANI HIGHWAY PAVEMENT PREVENTIVE MAINTENANCE, LIPOA ST. TO KILOHANA DR.

Fed. Aid Project No. ARR-031-1 (11)

Scale: 1" = 40' Date: APRIL 2009

SHEET No. C-12 OF 31 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ARR-031-1(11)	2009	14S-1	32



CURVE DATA

	P-4	P-5	P-6
Δ	33° 25' 16"	20° 55' 16"	32° 00' 00"
R	200.00'	520.00'	400.00'
T	60.04'	96.00'	114.70'
L	116.66'	189.87'	223.40'

CURVE DATA

	N-4	N-5
Δ	67° 00' 00"	39° 01' 46"
R	150.00'	150.00'
T	99.28'	53.16'
L	175.41'	102.18'

CURVE DATA

	R-1	R-2
Δ	52° 33' 23"	110° 19' 06"
R	150.00'	30.00'
T	74.06'	43.10'
L	137.59'	57.76'

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN
*Piilani Highway Pavement Maintenance
Preventive Maintenance.
Lipoa St. to Kilohana Dr.*
Federal Aid Proj. No. ARR-031-1(11)
Scale: 1" = 50' Date: June, 2009

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	