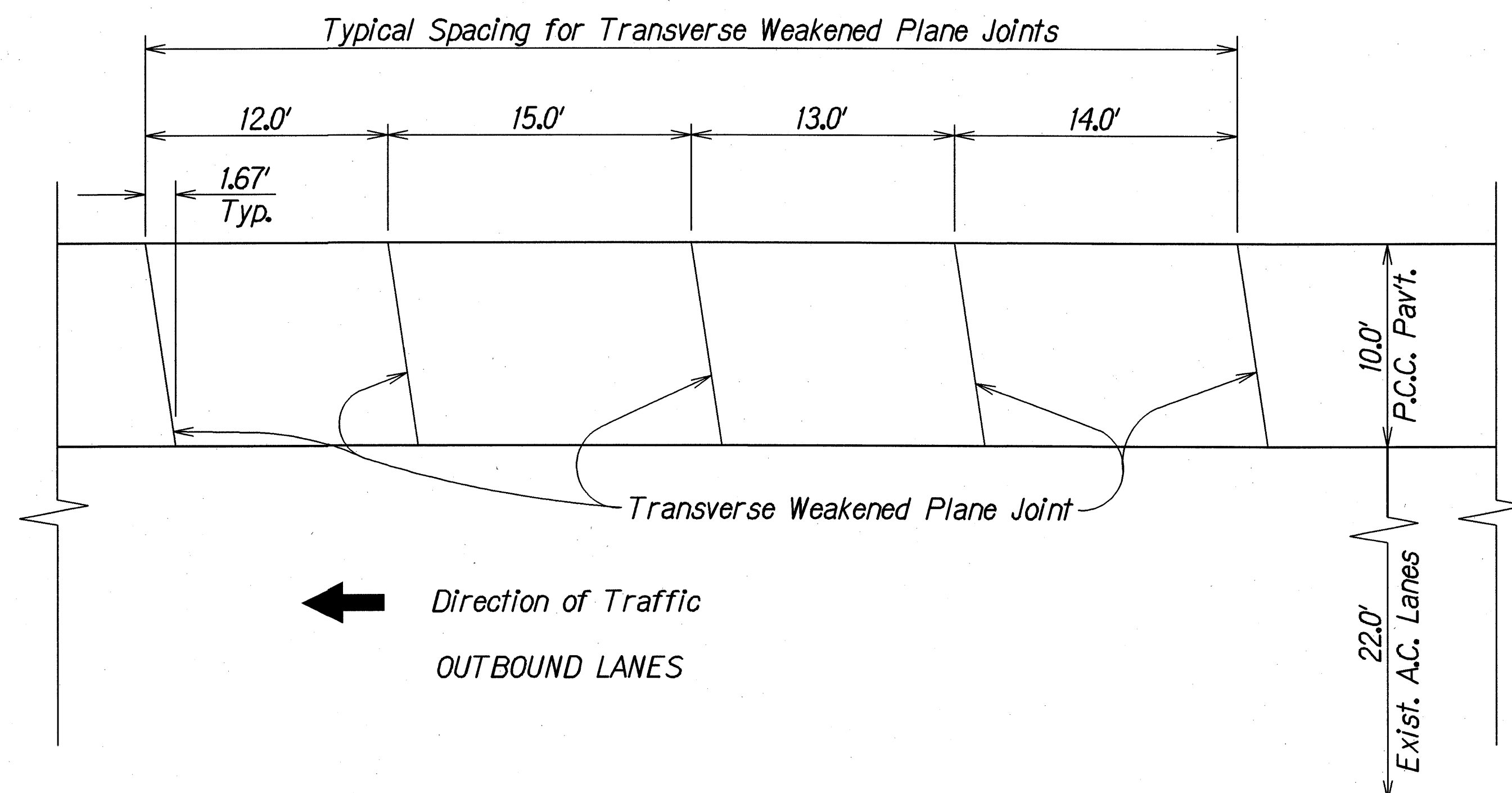
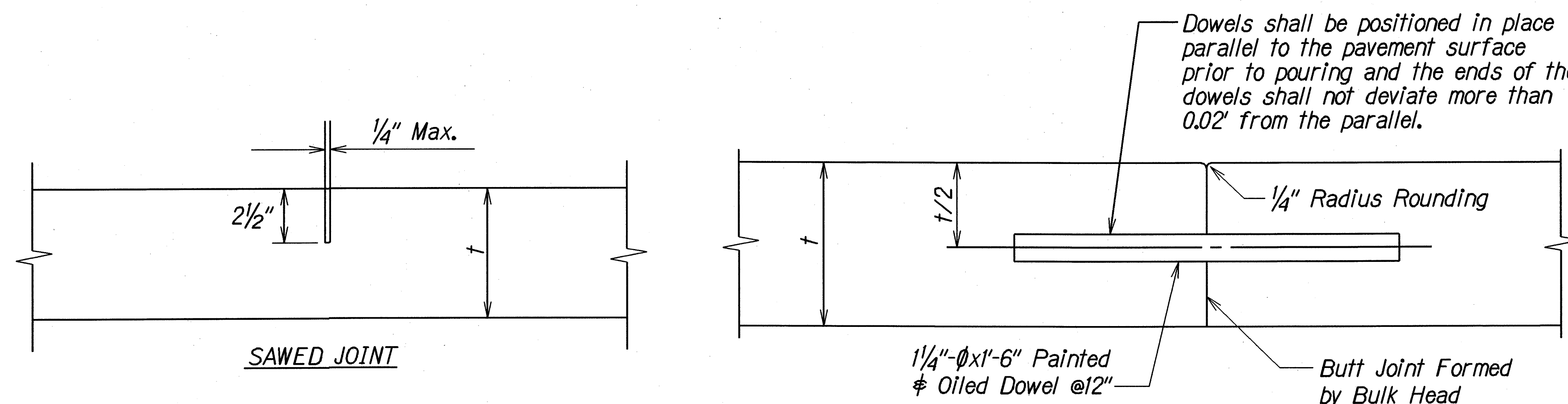


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61A-01-97M	1997	14	84

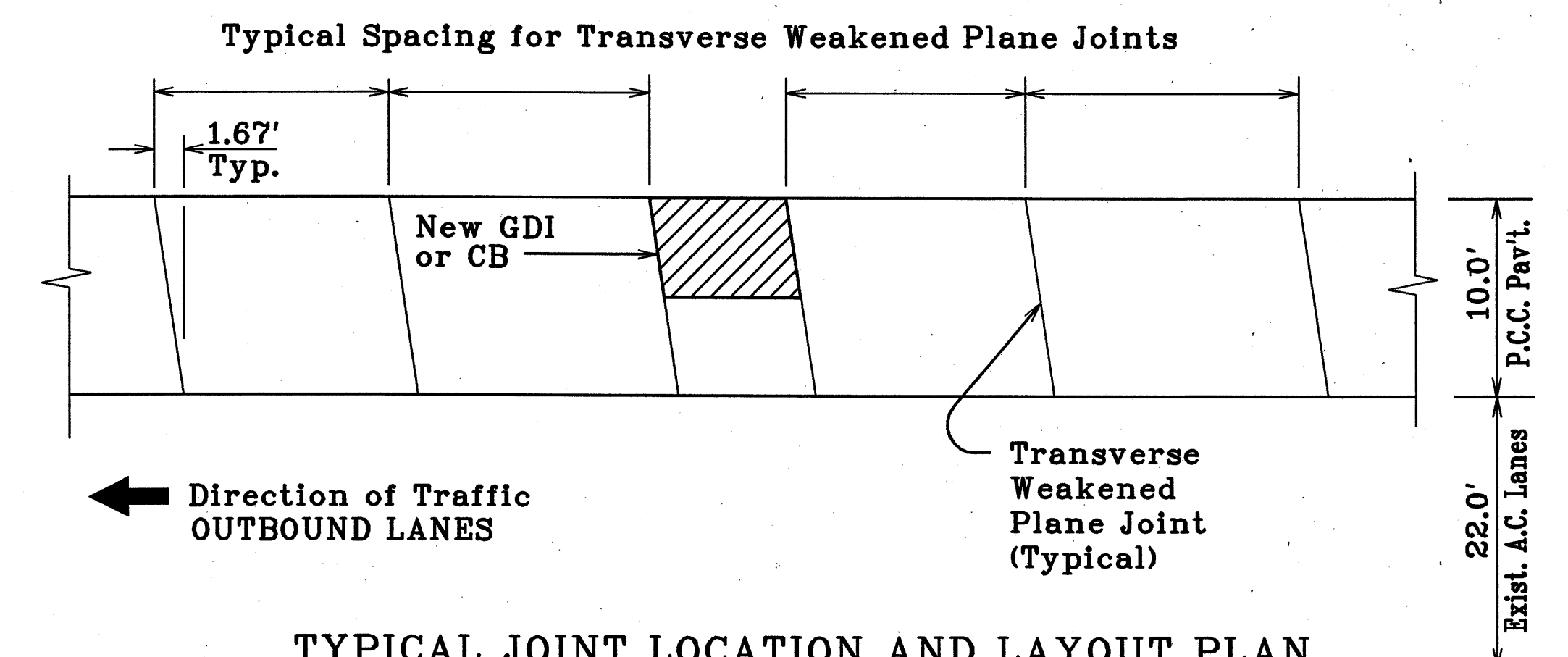


TYPICAL JOINT LOCATION AND LAYOUT PLAN
Scale: $\frac{3}{16}" = 1.0'$



TRANSVERSE WEAKENED PLANE
Scale: $3" = 1'$

TRANSVERSE CONSTRUCTION (CONTACT JOINT)
Scale: $3" = 1'$



TYPICAL JOINT LOCATION AND LAYOUT PLAN AT DRAINAGE STRUCTURES
N.T.S.

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

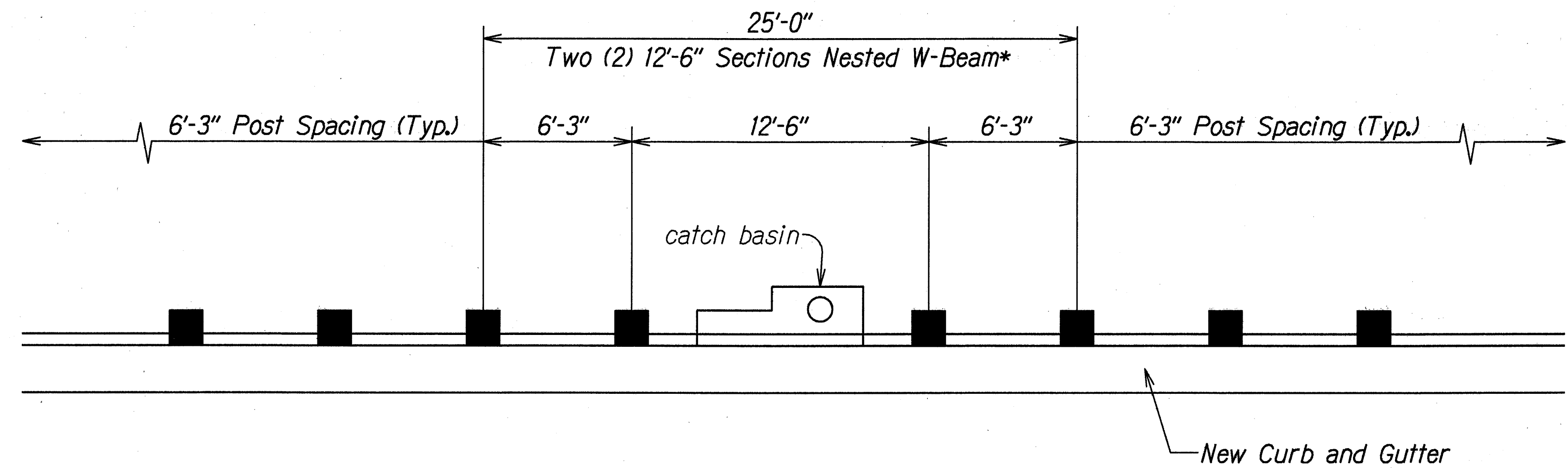
MISCELLANEOUS DETAILS

PALI HIGHWAY RESURFACING
Country Club Road to Tunnel Entrance
Including Both Roads to Lookout
Project No. 61A-01-97M
Scale: As Shown Date: May 1997

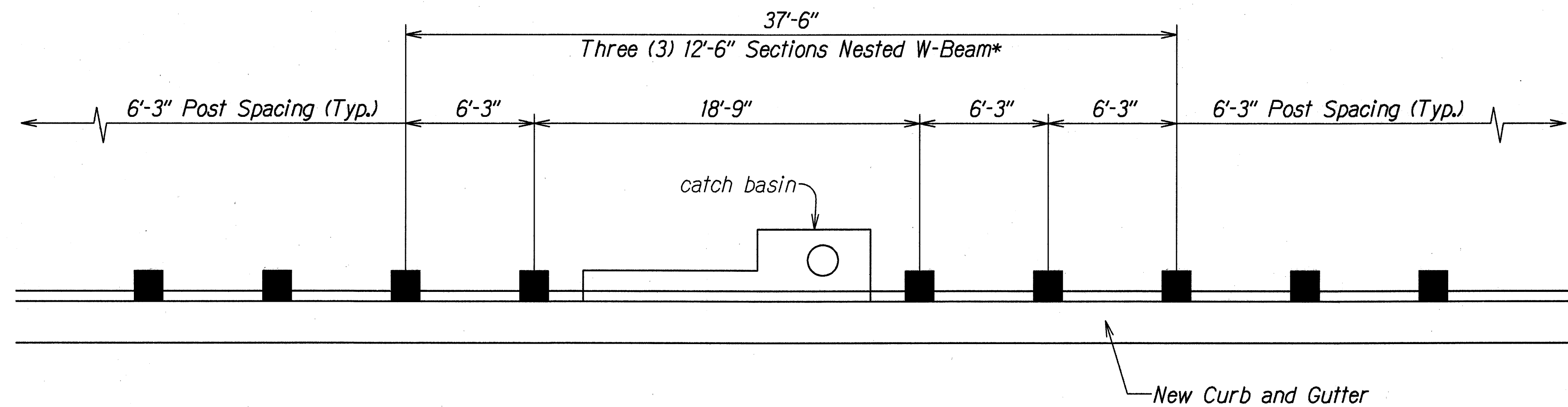
SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61A-01-97M	1997	15	84



GUARDRAIL DETAIL OVER CATCH BASIN
STA. 16+50 RT., # STA. 17+80 RT.,
STA. 24+91± RT. & # STA. 26+98± RT.
 Scale: 1/4"=1'-0"



GUARDRAIL DETAIL OVER CATCH BASIN
STA. 22+75± RT.
 Scale: 1/4"=1'-0"

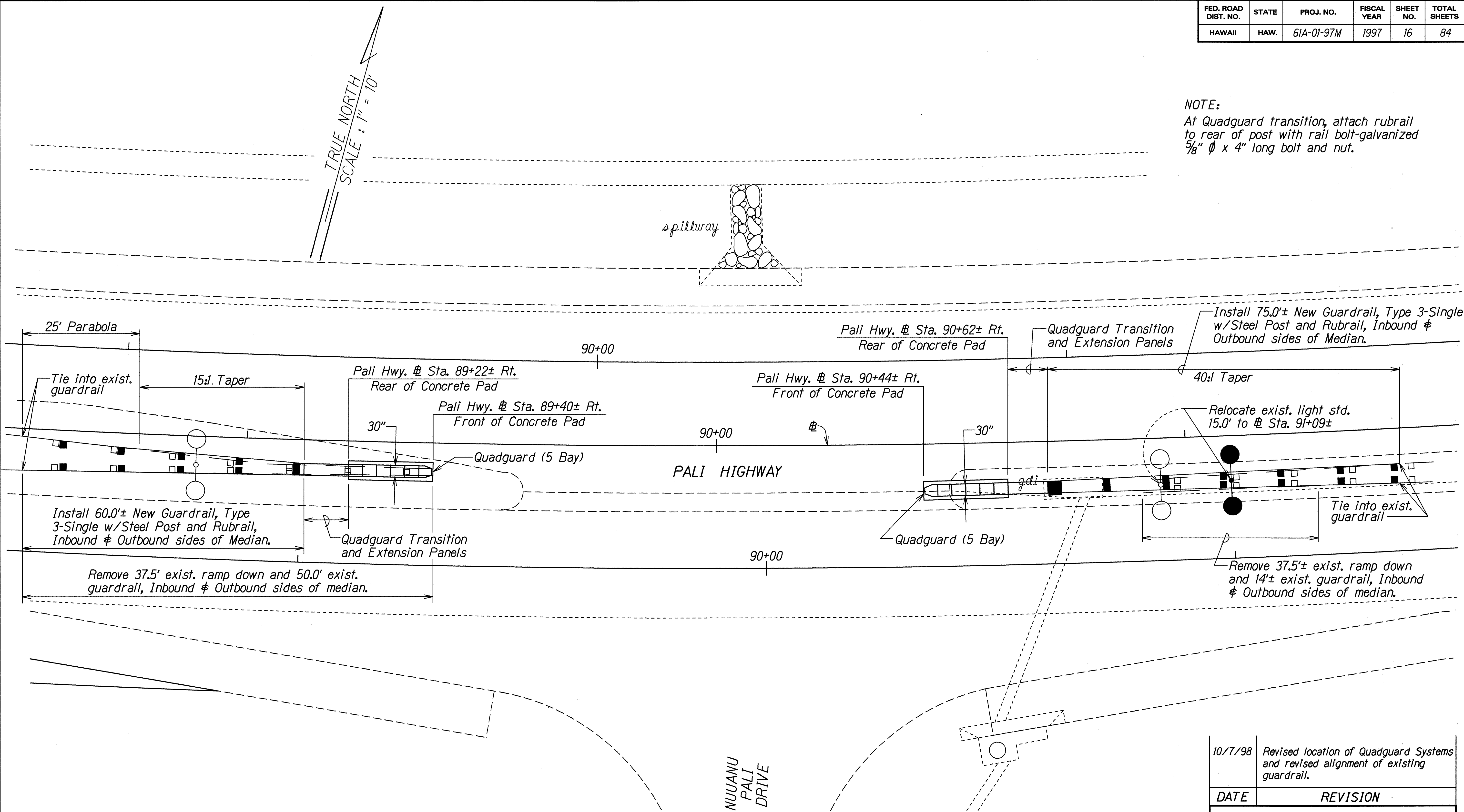
*To be paid under Item No. 606.3110, Guardrail, Type 3-Single w/Steel Post

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	5/12/97
ADDENDUM	CHECKED BY	

6/9/97	Revised Detail title.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION GUARDRAIL DETAIL OVER CATCH BASIN PALI HIGHWAY RESURFACING Country Club Road to Tunnel Entrance Including Both Roads to Lookout Project No. 61A-01-97M Scale: As Shown Date: May 1997	
SHEET No. 2 OF 9 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61A-01-97M	1997	16	84

NOTE:
At Quadguard transition, attach rubrail to rear of post with rail bolt-galvanized $\frac{5}{8}$ " ϕ x 4" long bolt and nut.

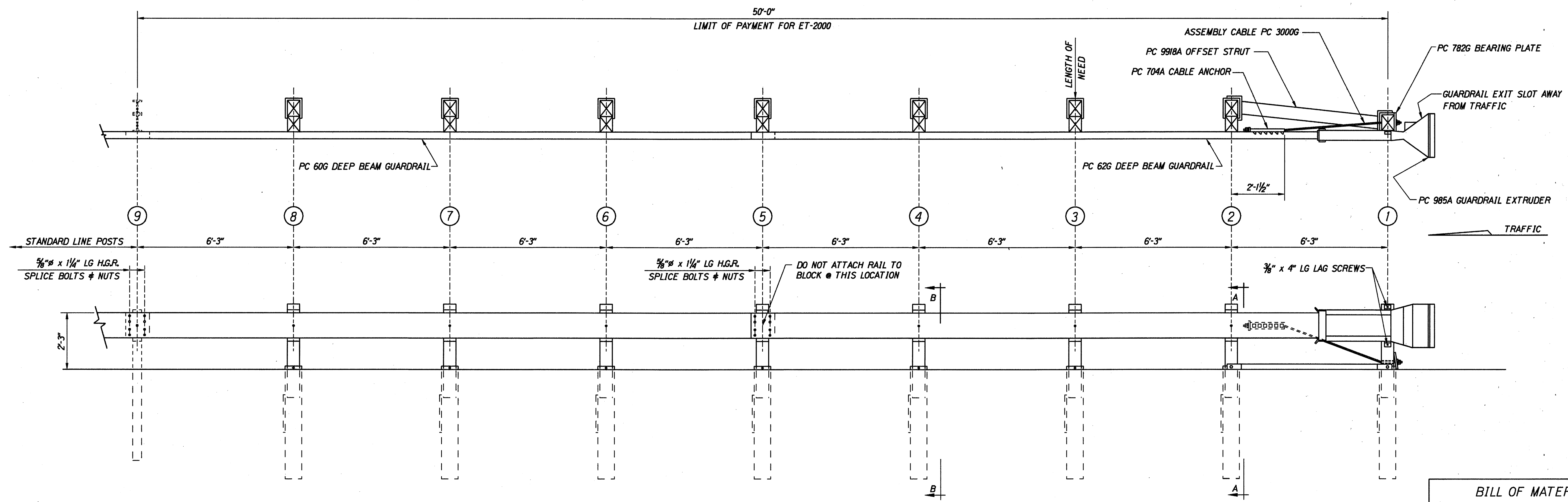


ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	5/13/97
QUANTITIES BY	DESIGNED BY	
CHECKED BY		

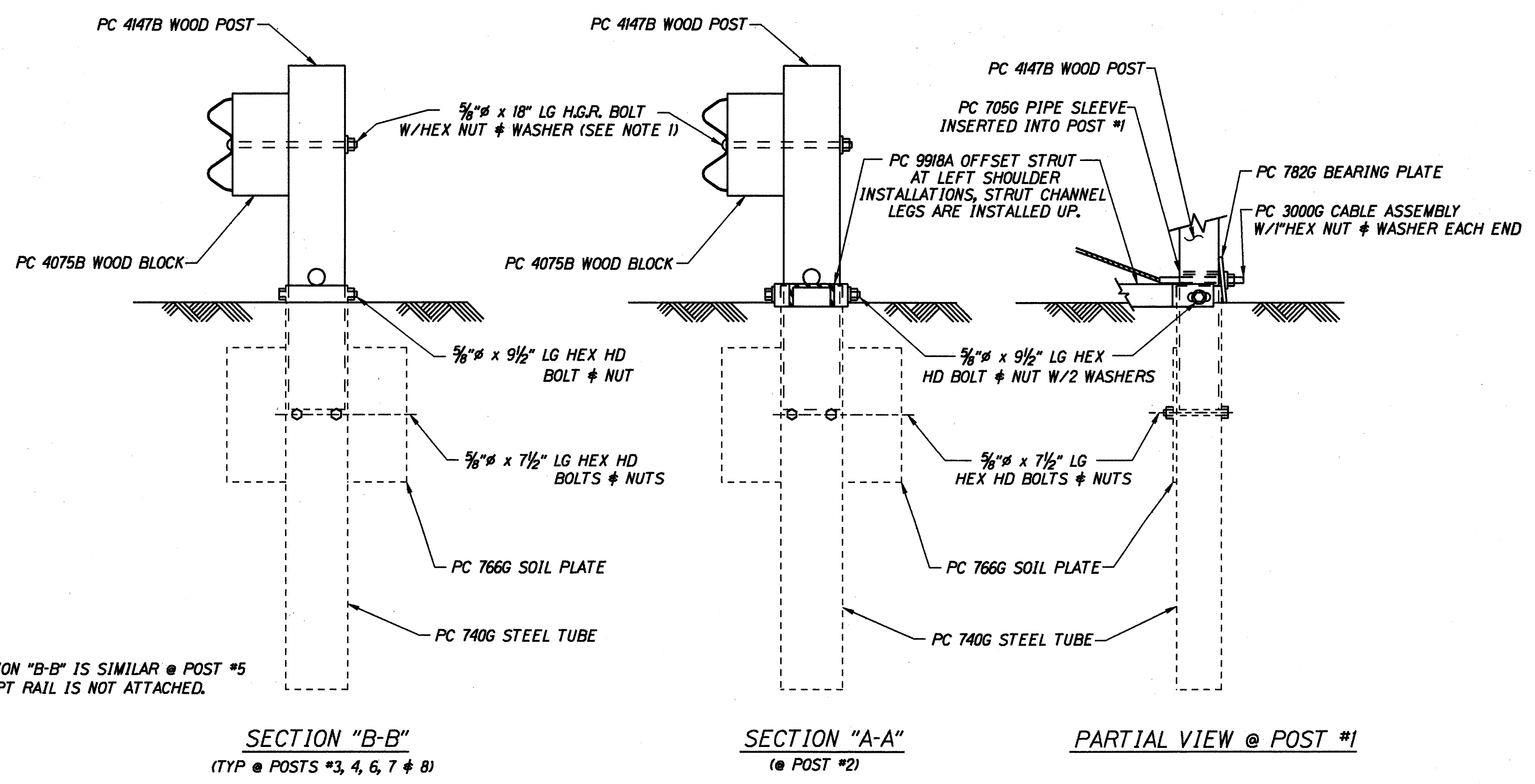
PALI HIGHWAY $\pm$ STA. 88+48 $\pm$ TO $\pm$ STA. 91+45 $\pm$ (MEDIAN)
Scale: 1"=10'

10/7/98	Revised location of Quadguard Systems and revised alignment of existing guardrail.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GUARDRAIL & QUADGUARD DETAILS	
PALI HIGHWAY RESURFACING Country Club Road to Tunnel Entrance Including Both Roads to Lookout Project No. 61A-01-97M	
Scale: As Shown	Date: May 1997
SHEET No. 3 OF 9 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61A-01-97M	1997	17	84



BILL OF MATERIAL		
PC	QTY	DESCRIPTION
60G	1	12/25/6'3/S (GUARDRAIL)
62G	1	12/25/6'3/S ANC (GUARDRAIL)
704A	1	CABLE ANCHOR BRACKET
705G	1	2" x 5 1/2" PIPE
740G	8	4"6 TUBE SLEEVE
766G	8	1/4" x 18" x 24" SOIL PLATE
782G	1	3/8" x 8" x 8" BEARING PLATE
985A	1	ET-2000 EXTRUDER
3000G	1	CABLE 3/4 x 6'6
3000G	11	3/8" WASHER
3340G	47	5/8" HEX NUT
3360G	16	5/8" x 1 1/4" SPLICE BOLT
3478G	16	5/8" x 7 1/2" HEX HD BOLT
3497G	8	5/8" x 9 1/2" HEX HD BOLT
3580G	7	5/8" x 18" POST BOLT
3900G	2	1" WASHER
3910G	2	1" HEX NUT
4075B	7	WD BLOCK 1'2 6" x 8" DR
4147B	8	WD 3'9 POST 5 1/2 x 7 1/2
4228G	2	3/8" x 4" LAG SCREW
9918A	1	6'3 STRUT



NOTE: THE 5/8" FLAT WASHER IS USED UNDER THE NUT, BEHIND THE POST ONLY. NO WASHER IS USED AT THE RAIL.

NOTE: SECTION "B-B" IS SIMILAR @ POST #5 EXCEPT RAIL IS NOT ATTACHED.

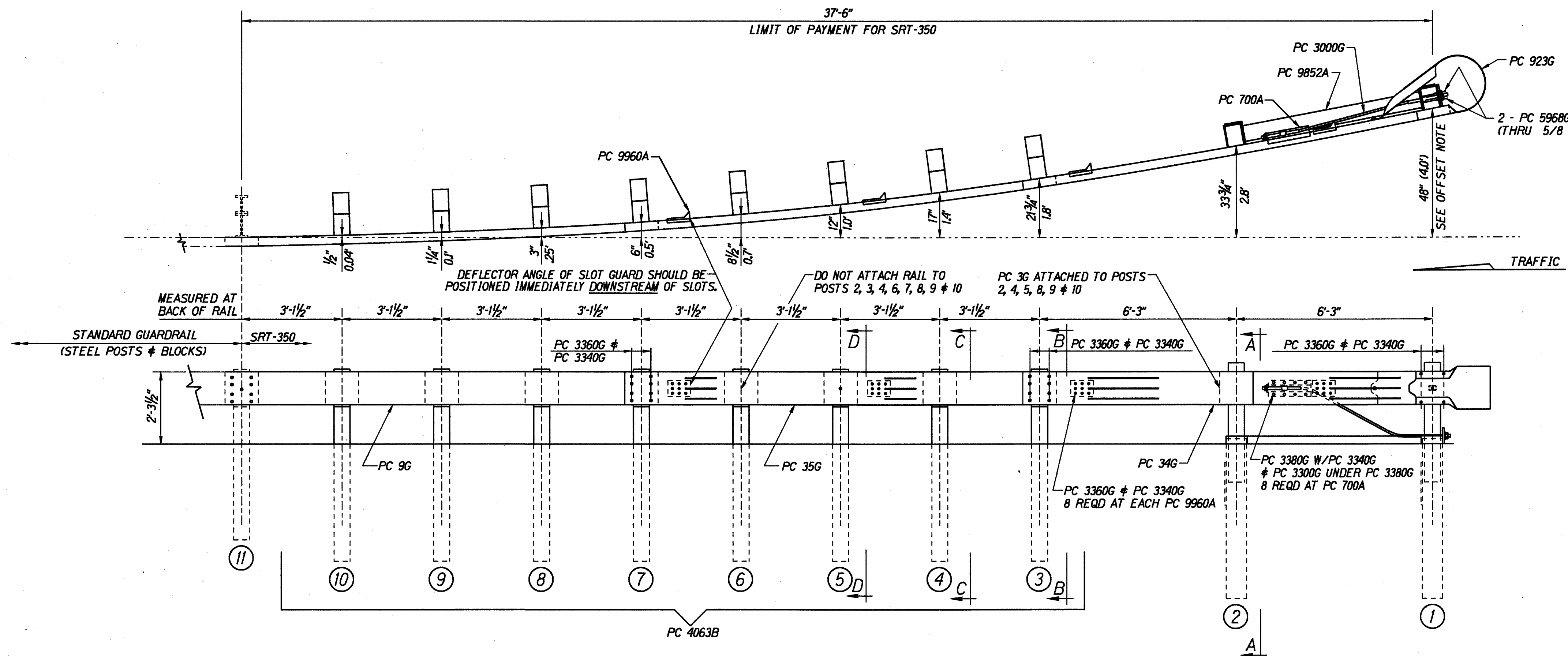
ORIGINAL PLAN	DATE	9/6/96
SURVEY PLOTTED BY		
DRAWN BY		
TRACED BY		
CHECKED BY		
QUANTITIES BY		
DESIGNED BY		
NOTED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ET-2000 - OPTION "A"
Pali Highway Resurfacing
Country Club Road to Tunnel Entrance
Including Both Roads to Lookout
Project No. 61A-01-97M

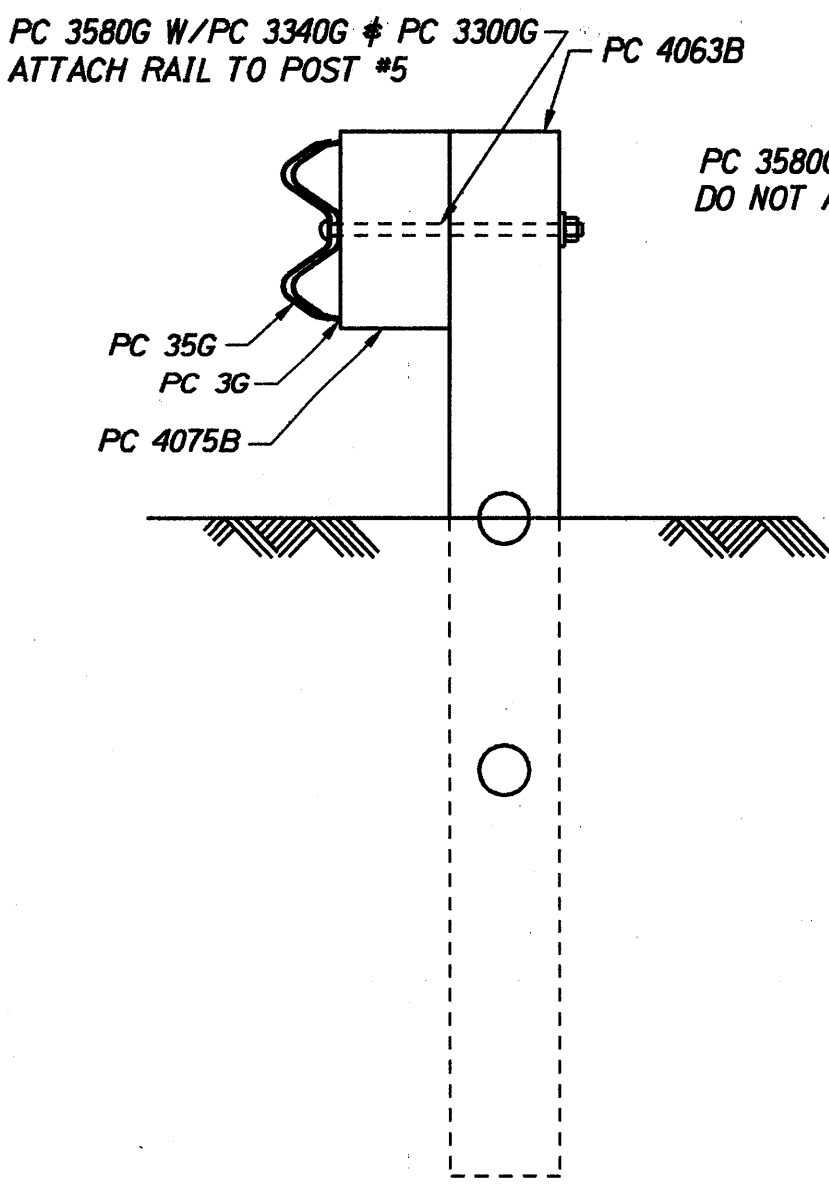
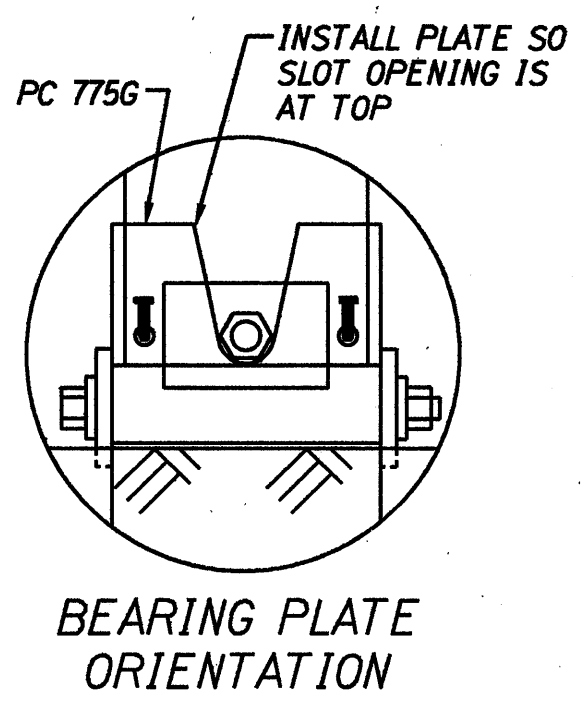
Date: May 1997
SHEET No. 4 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61A-01-97M	1997	18	84

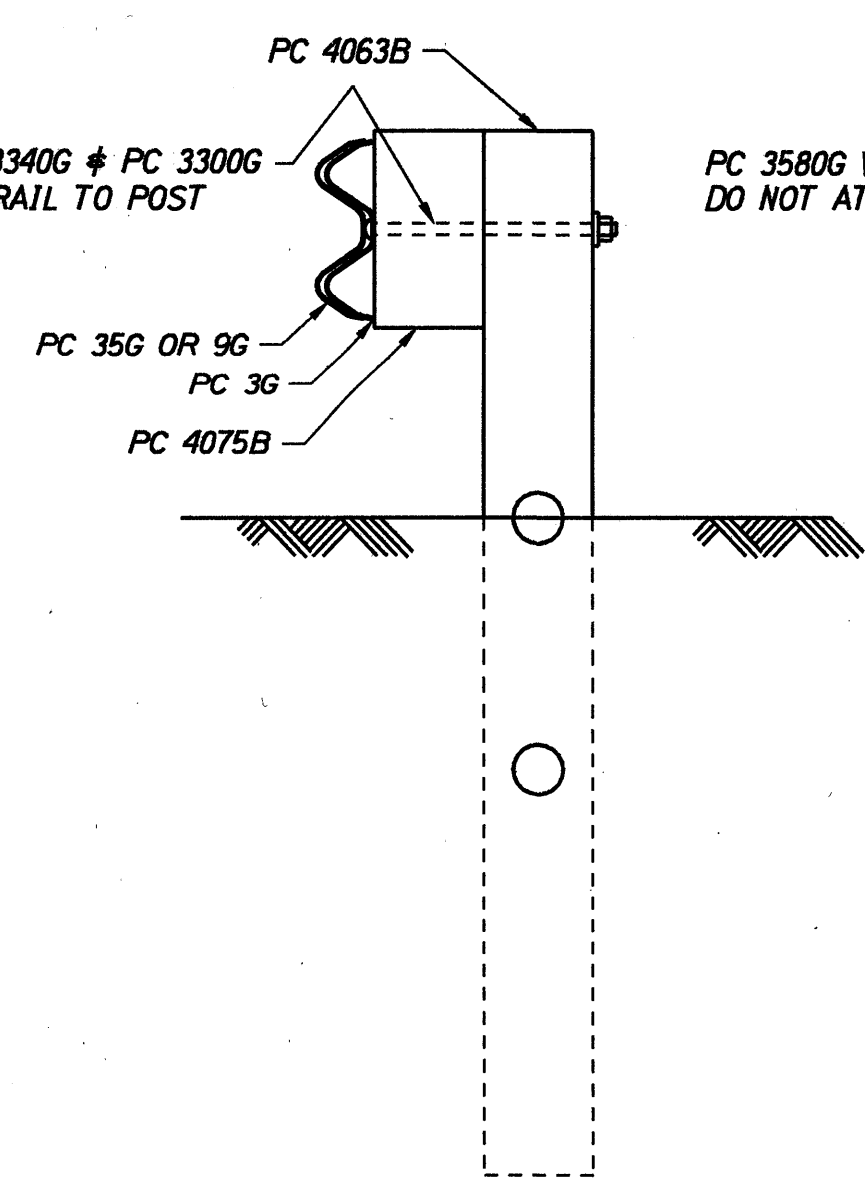


OFFSET NOTE:
THE POST OFFSET DIMENSIONS ARE GIVEN TO THE CENTER OF THE TRAFFIC FACE OF THE BLOCKOUTS, EXCEPT AT THE FIRST TWO POSTS, WHERE THE DIMENSION IS TO THE CENTER OF THE TRAFFIC FACE OF THE POST. OFFSET POINTS ARE TO BE LOCATED BY CHORD MEASUREMENTS AT THE BACK OF THE RAIL EQUAL TO THE NOMINAL POST SPACINGS SHOWN. POSTS ARE TO BE SET APPROXIMATELY RADIAL TO THE RAILING AT EACH POST LOCATION.

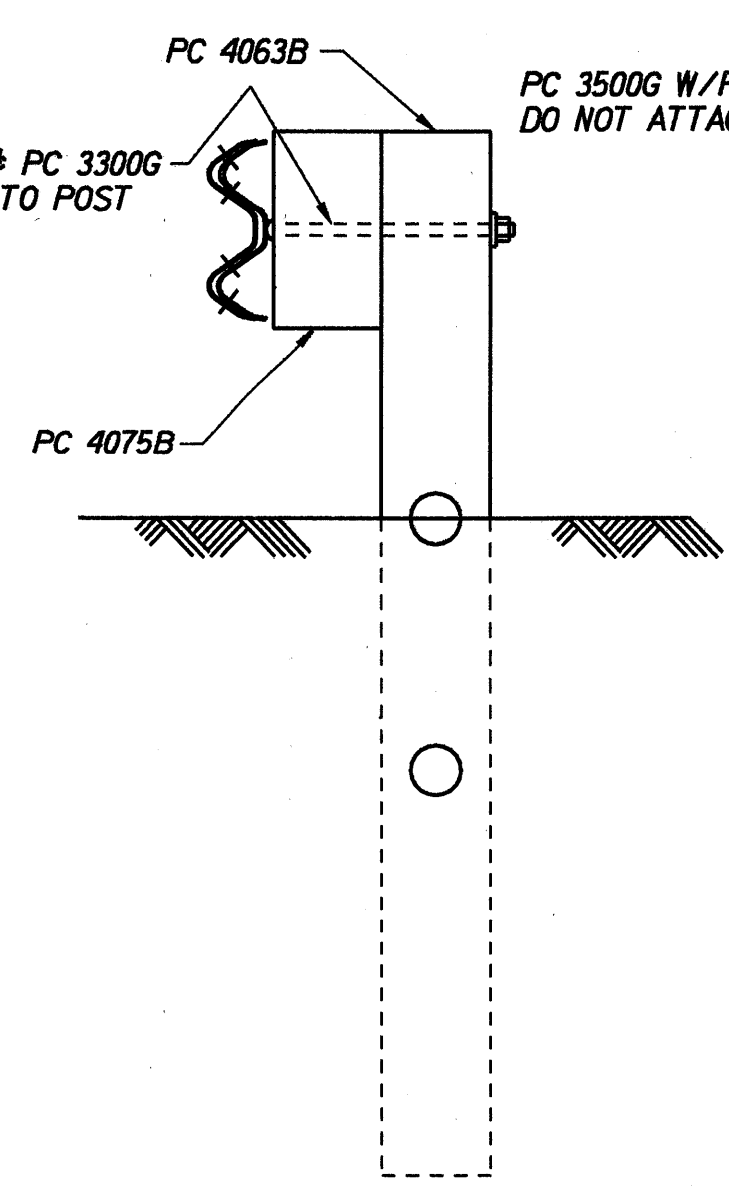
PC	QTY	DESCRIPTION
3G	7	12/12\"/>



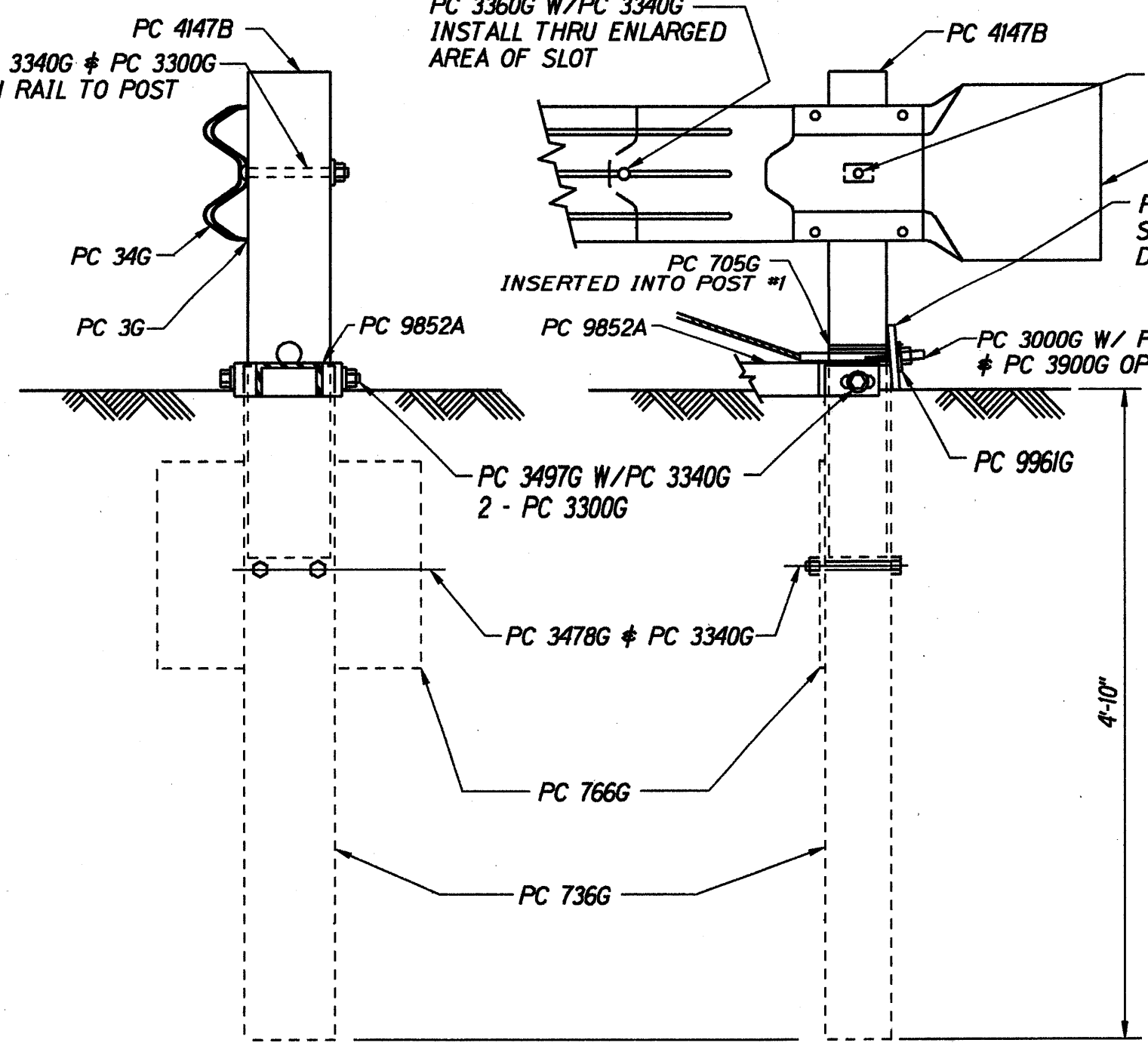
SECTION "D-D"
(@ POST #5)



SECTION "C-C"
(@ POSTS #4, #6, #8, #9 & #10)



SECTION "B-B"
(@ POSTS #3 & #7)



SECTION "A-A"
(@ POST #2)

ENLARGED VIEW @ POST #1

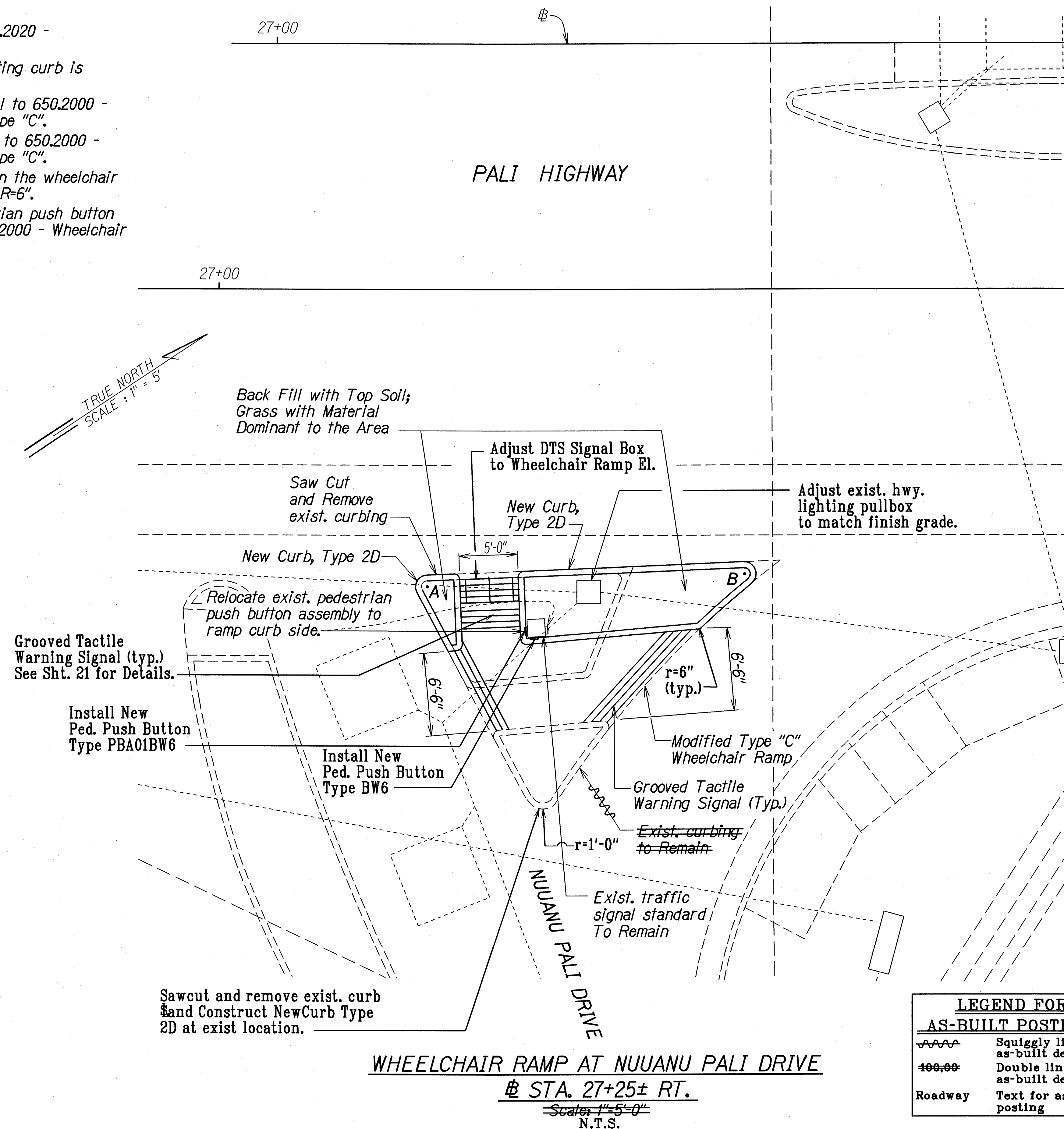
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SRT-350
SLOTTED RAIL TERMINAL
Pali Highway Resurfacing
Country Club Road to Tunnel Entrance
Including Both Roads to Lookout
Project No. 61A-01-97M
Date: May 1997

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61A-01-97M	1997	19	84

NOTES:

1. Curbing to be paid under 609.2020 - Curb, Type 2D.
2. Removal and disposal of existing curb is incidental to Curb, Type 2D.
3. Top soil back fill is incidental to 650.2000 - Wheelchair Ramp, Modified Type "C".
4. Grassing of soil is incidental to 650.2000 - Wheelchair Ramp, Modified Type "C".
5. All curbing angle points within the wheelchair ramps shall be rounded with R=6".
6. Relocation of existing pedestrian push button assembly is incidental to 650.2000 - Wheelchair Ramp, Modified Type "C".

POINT	A	B	
RADIUS	1'-0"	1'-0"	
ANGLE	115°35'5.5"±	143°11'20"±	NA
# STA.	27+13±	27+40±	NA
OFFSET	46'-5"±	45'-4"±	



6/9/97 Added Pedestrian Push Button
Assembly and Revised notes.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS
PALI HIGHWAY RESURFACING
Country Club Road to Tunnel Entrance
Including Both Roads to Lookout
Project No. 61A-01-97M

Scale: 1"=5'-0" Date: May 1997

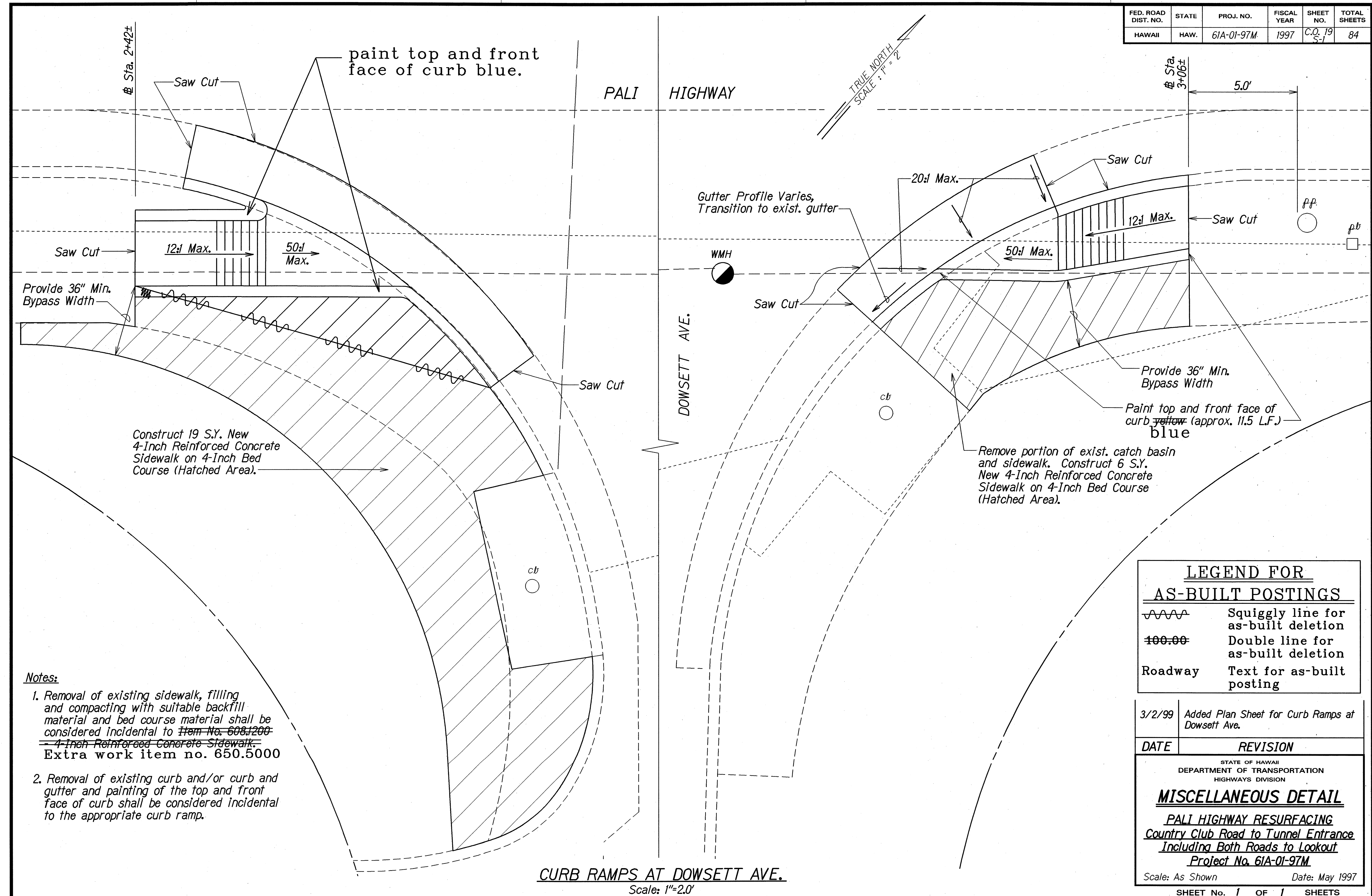
SHEET No. 6 OF 9 SHEETS

"AS-BUILT"

ADD. 19

ORIGINAL PLAN	DATE 5/12/97
DESIGNED BY R. Sautter	
CHECKED BY S. Sautter	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61A-01-97M	1997	C.O. 19 S-1	84

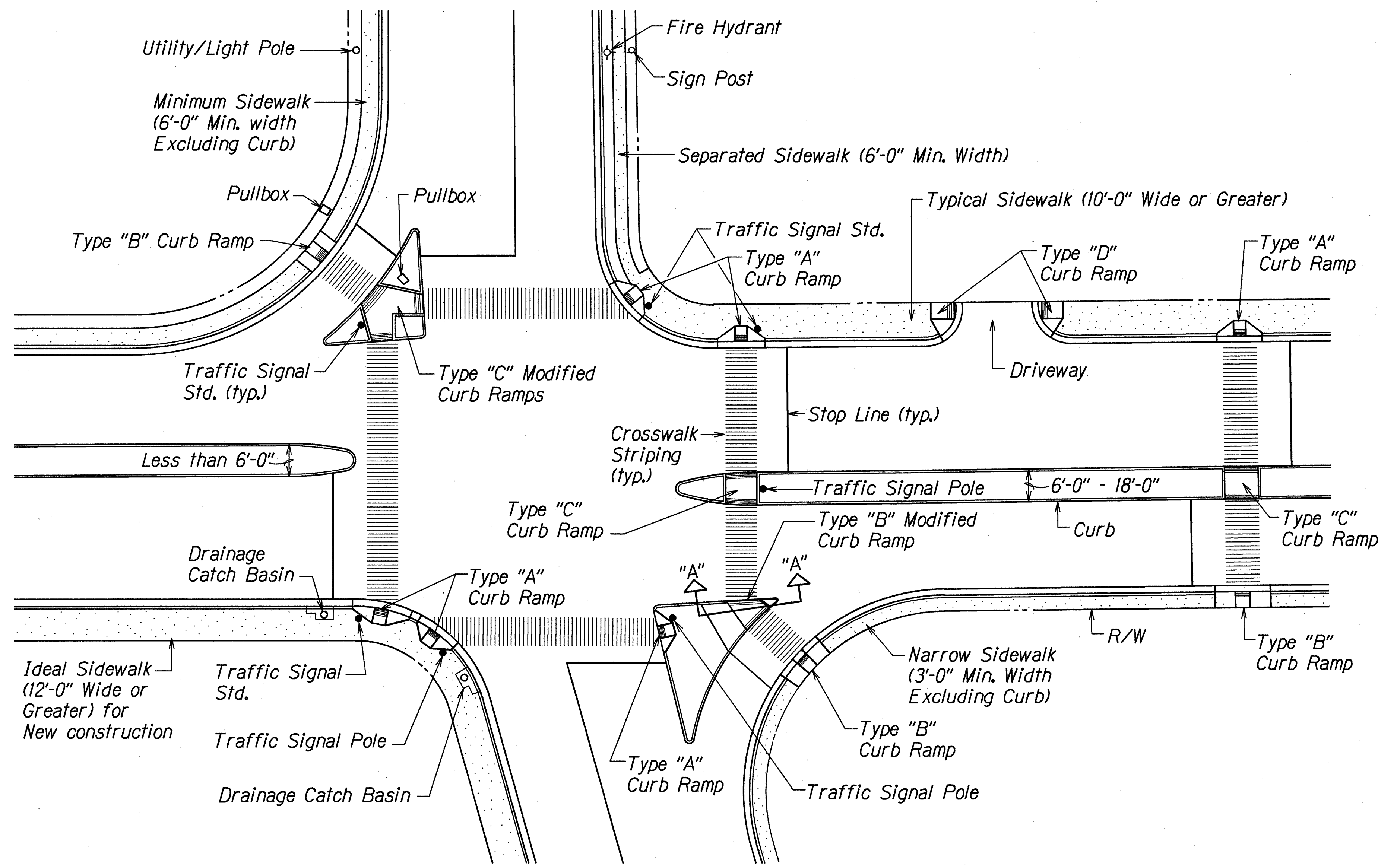


"AS-BUILT"

C.O. 19 S-1

DESIGNED BY	DATE
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

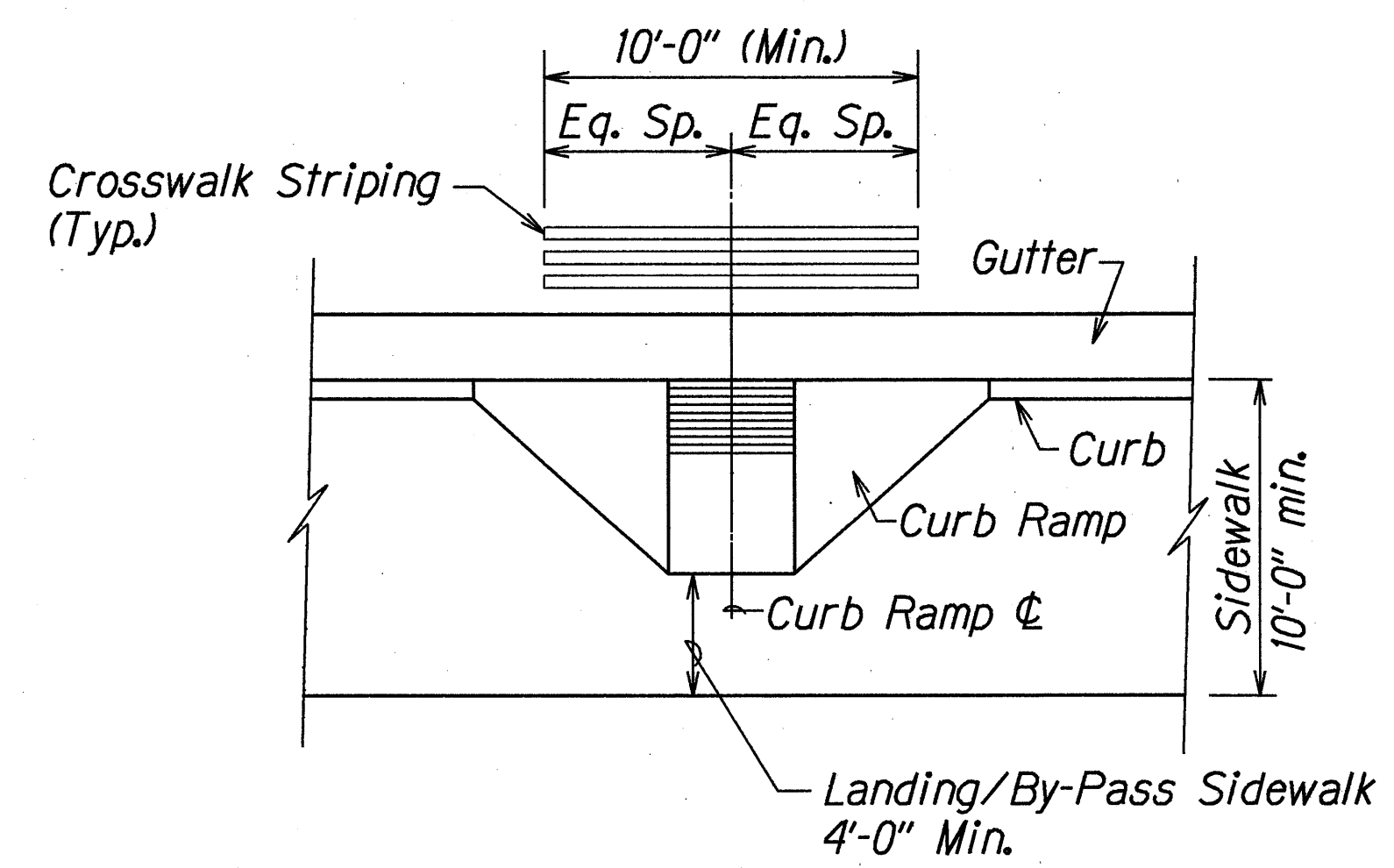
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61A-01-97M	1997	20	84



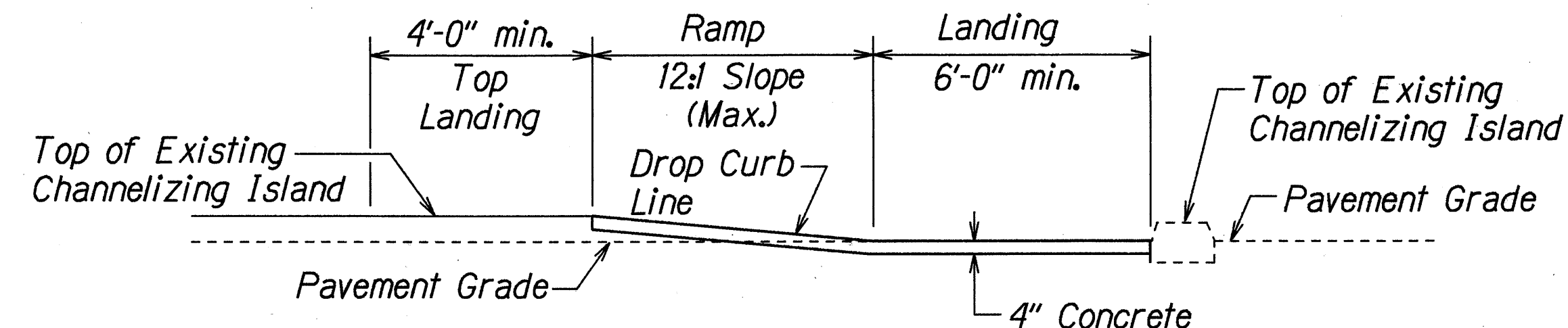
TYPICAL CURB RAMPS

GENERAL NOTES:

1. When necessitated by existing physical conditions, alternate Curb Ramps may be used subject to Engineer's approval.
2. Subject to field conditions, the Engineer shall determine final location of Curb Ramp.
3. Where necessary, pullboxes, handholes, manholes, etc. shall be adjusted to match Curb Ramp grade. Adjustments shall not be paid for separately but shall be considered incidental to the various wheelchair items.
4. All sidewalks shall provide a minimum clear width of 3'-0" (excluding curb) for pedestrian circulation.
5. Narrow Sidewalks (3'-0" min. width excluding curb) will prohibit the installation of any sign posts, utility poles, fire hydrants, traffic signals standards, light poles, etc. in the sidewalk, which will prevent a 3'-0" wide clear zone for pedestrian circulation. Also, Narrow Sidewalks shall require a minimum 6'-0" wide by 10'-0" long passing space at intervals not to exceed 200 feet.
6. If possible, install utility poles, fire hydrants, light poles, sign posts, pullboxes, etc. off of sidewalk but within the right-of way.
7. Single curb ramps serving two street crossing directions is prohibited in new construction.
8. Objects protruding from utility poles and walls adjacent to the sidewalks (i.e. wall mounted fire hydrants, telephones, meters on poles etc.) shall meet the current American with Disabilities Act (ADA) Accessibility Guidelines and will be subject to Engineer's approval.



TYPICAL CROSSWALK STRIPING AT CURB RAMP



SECTION "A-A"

CURB RAMP

USE AT INTERSECTION OF 2 CROSSWALKS ON CHANNELIZING ISLAND
For Additional Details, See Type "B" Modified Curb Ramp

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

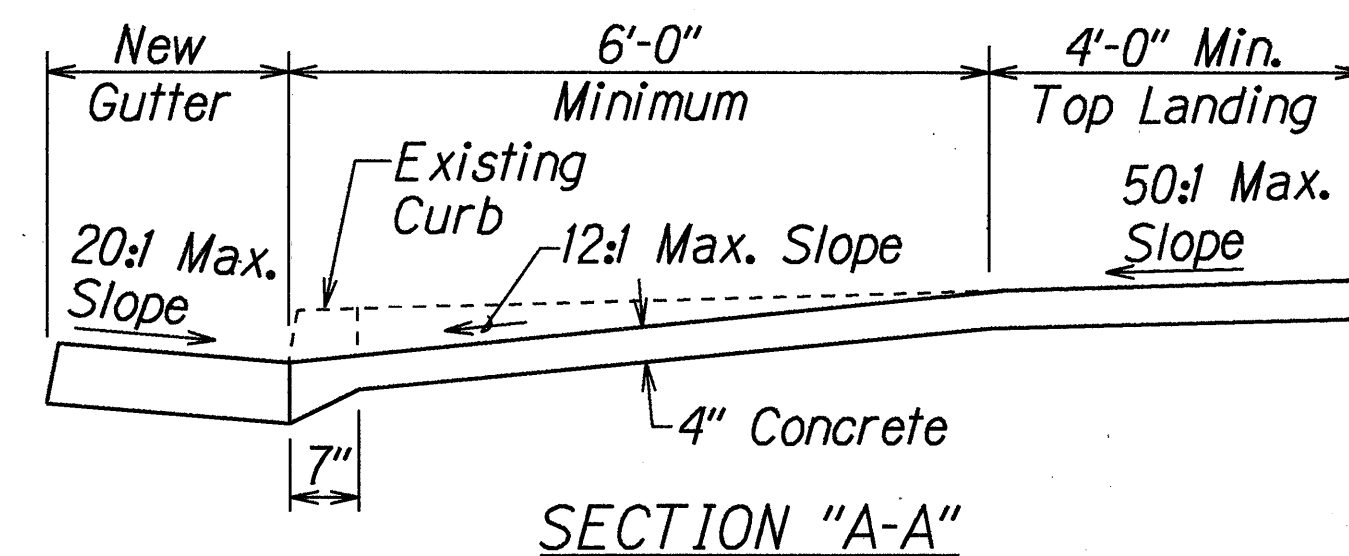
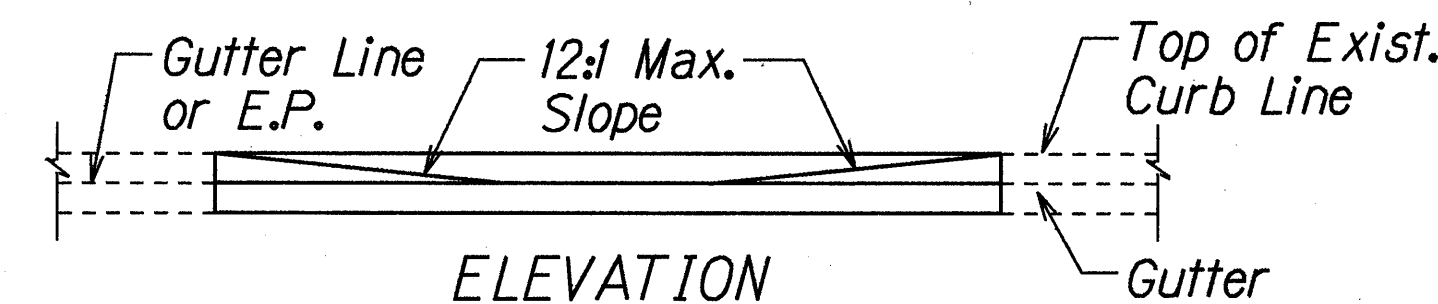
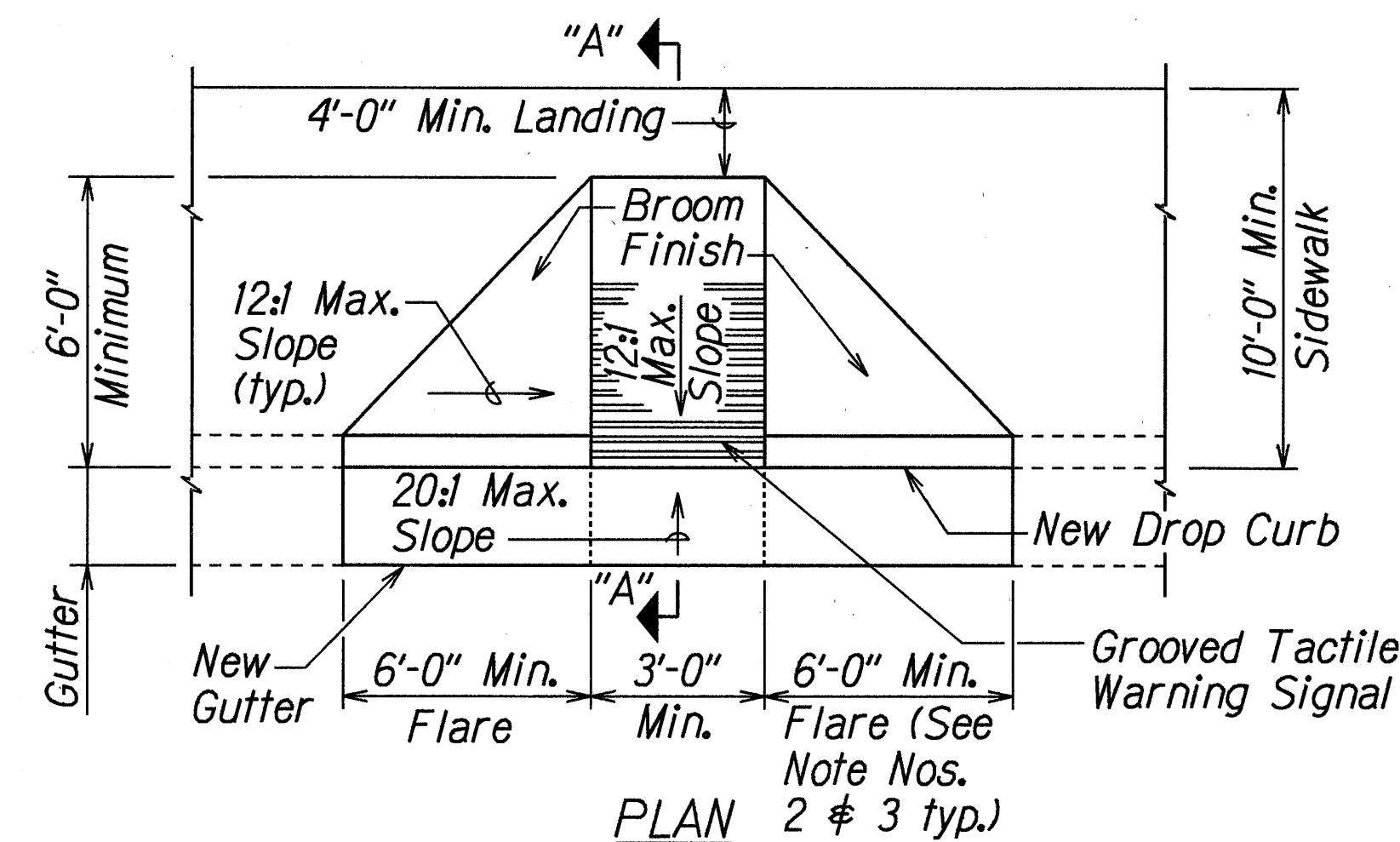
CURB RAMP DETAIL

PALI HIGHWAY RESURFACING
Country Club Road to Tunnel Entrance
Including Both Roads to Lookout
Project No. 61A-01-97M

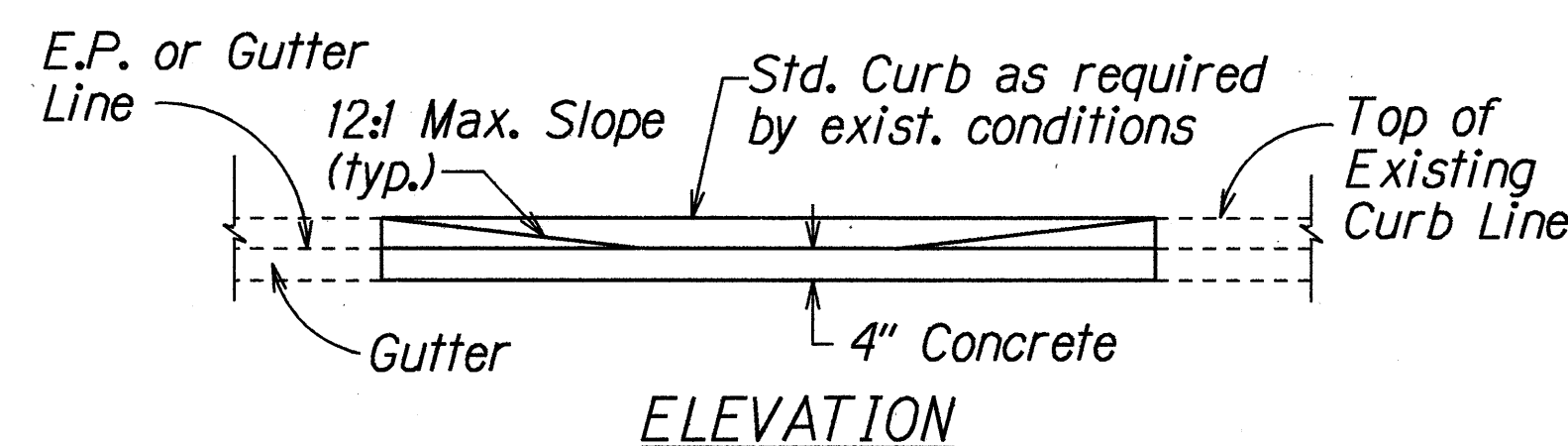
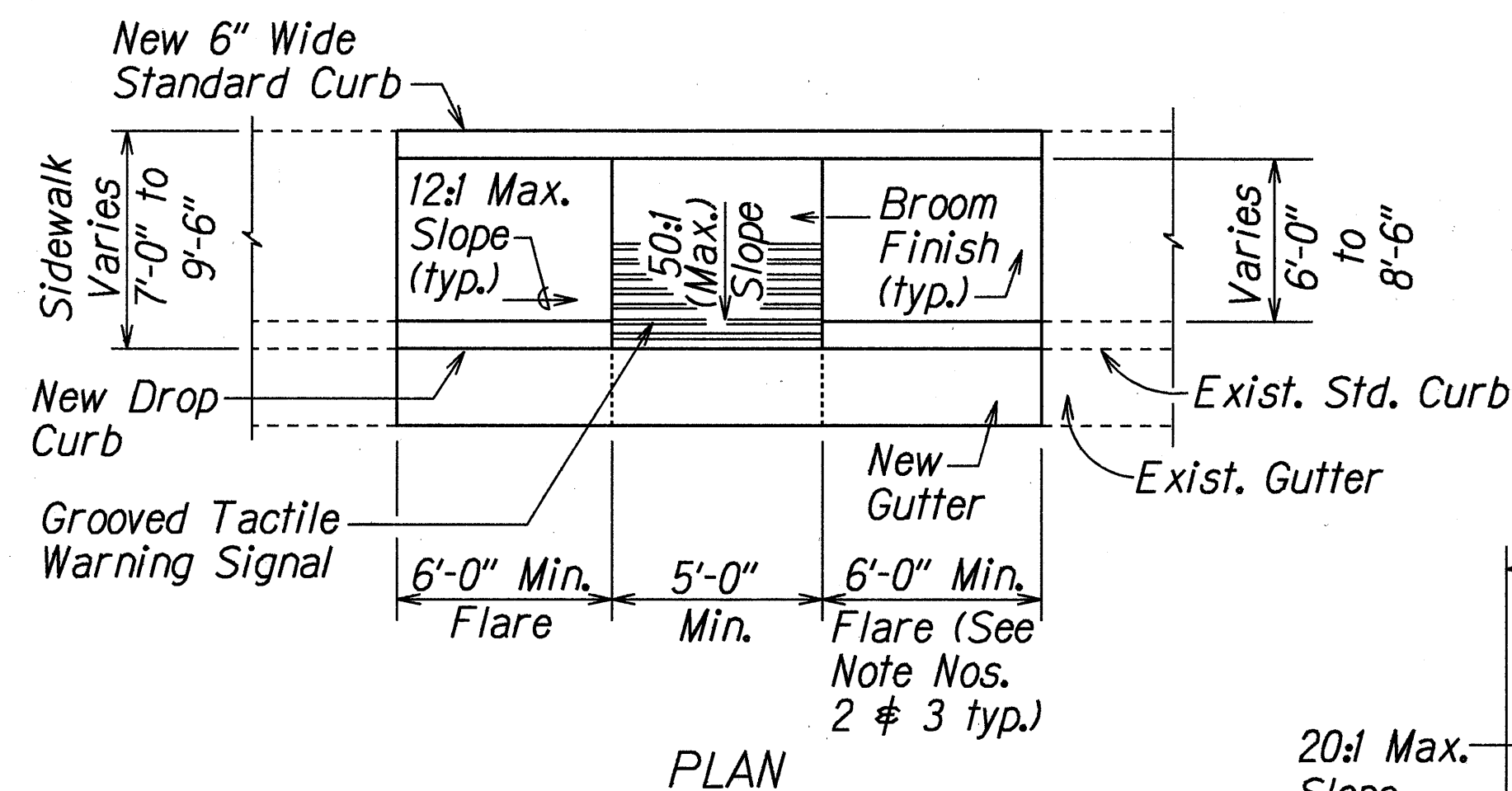
Not to Scale Date: May 1997

SHEET No. 7 OF 9 SHEETS

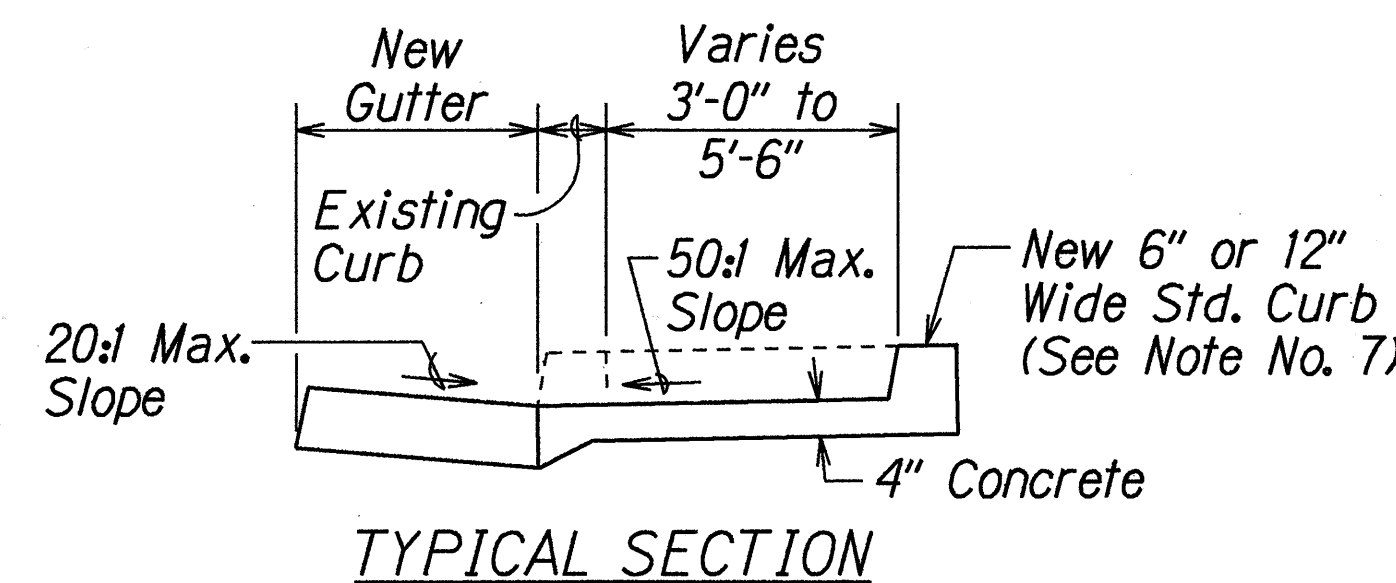
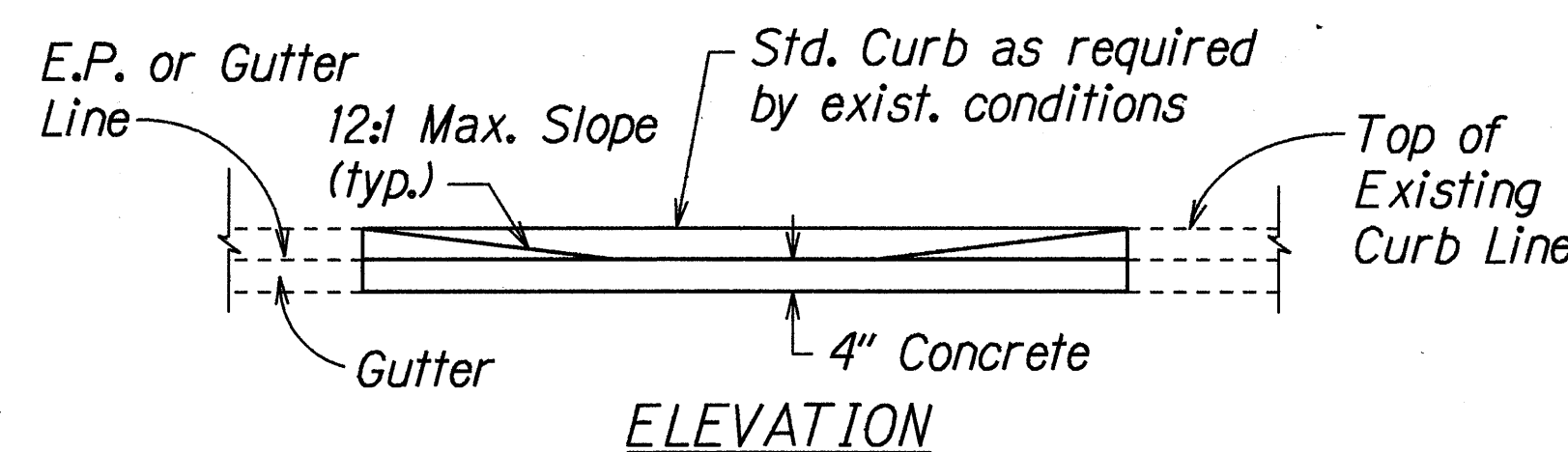
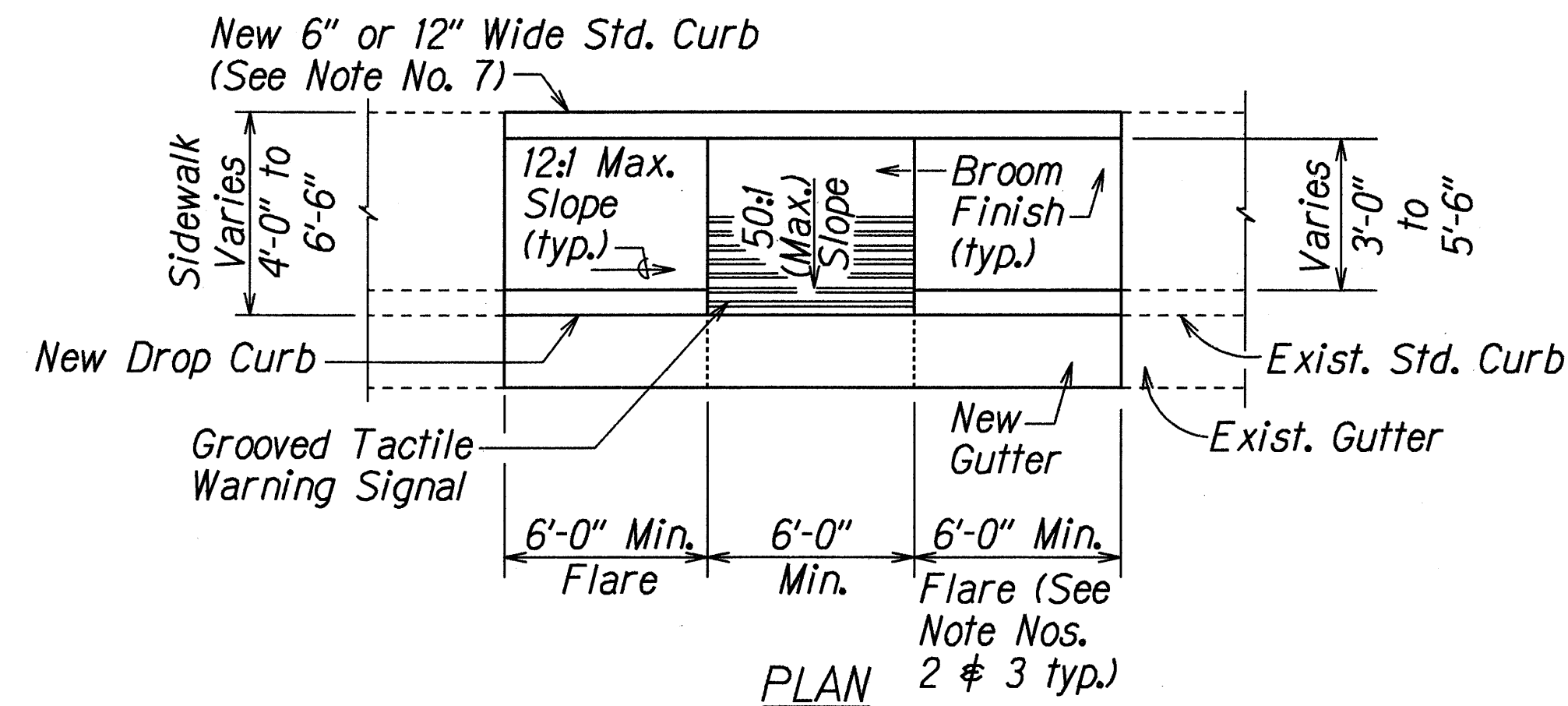
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61A-01-97M	1997	21	84



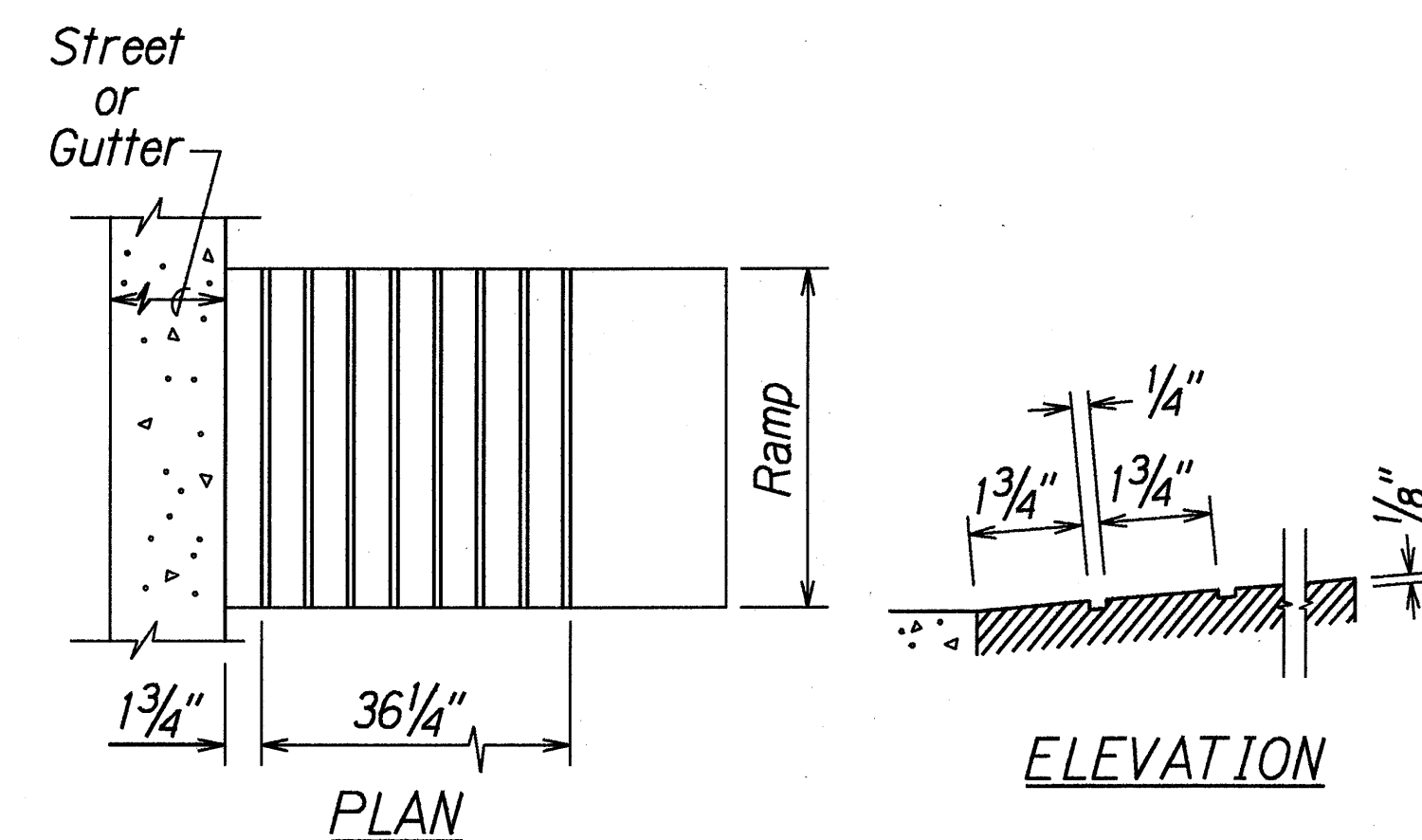
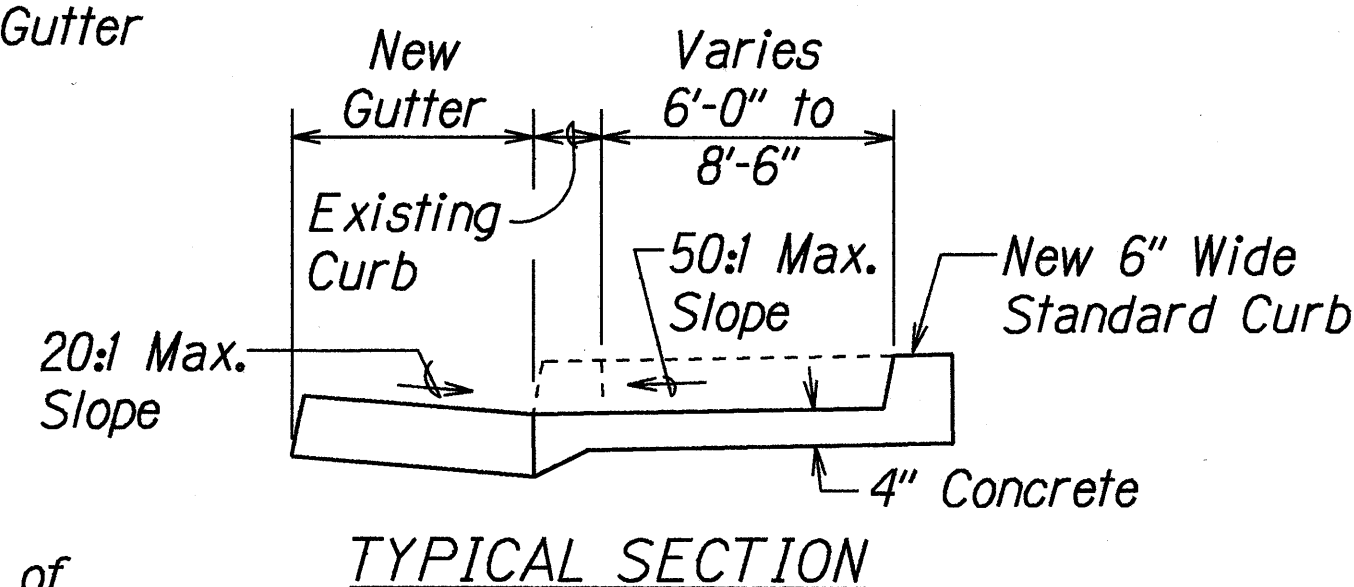
CURB RAMP - TYPE "A"
SIDEWALK WIDTH 10'-0" OR GREATER



CURB RAMP - TYPE "B" MODIFIED
SIDEWALK WIDTH 7'-0" OR GREATER
BUT LESS THAN 10'-0" WIDTH



CURB RAMP - TYPE "B"
SIDEWALK WIDTH 4'-0" OR GREATER
BUT LESS THAN 7'-0" WIDTH
(FOR EXISTING SIDEWALK ONLY)



GROOVED TACTILE WARNING SIGNAL

CURB RAMP NOTES:

1. The New Gutter fronting the curb ramps shall not exceed a slope of 20:1 maximum. Areas without a gutter shall be handled on a case by case basis in order to meet the 20:1 maximum slope requirement.
2. The New Gutter fronting the 6'-0" minimum flares on both sides of the New Curb Ramps shall have a transition slope from 20:1 maximum to the existing gutter slope.
3. When the curb exceeds the standard 6" height, the side flares and ramp may be greater than 6'-0" in order to meet the 12:1 maximum slope requirement.
4. Curb Ramps shall be reinforced if adjacent sidewalks are reinforced.
5. All new adjacent sidewalks should have a minimum width of 6'-0" excluding the curb and the cross slope shall not exceed 50:1.
6. The Contractor shall use the Edge of Pavement (E.P.) fronting the new curb ramp or gutter as the control elevation when constructing the New Curb Ramp or Curb Ramp with gutter.
7. The New Standard Curb shall be 12" wide at signalized intersection or mid-block pedestrian crossings. For sidewalk width, excluding curb, is less than 4'-0", an Engineer approved, modified sidewalk with a minimum 3'-0" wide curb ramp and a 12" wide standard curb shall be installed.
8. The width of Curb Ramp including curbs shall match the width of the sidewalk. When the sidewalk width is less than 4'-0", an Engineer approved, modified sidewalk with a minimum 3'-0" wide curb ramp excluding curbs shall be installed. Standard curbs shall be installed on all Type "D" and Modified Type "D" Curb Ramps.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

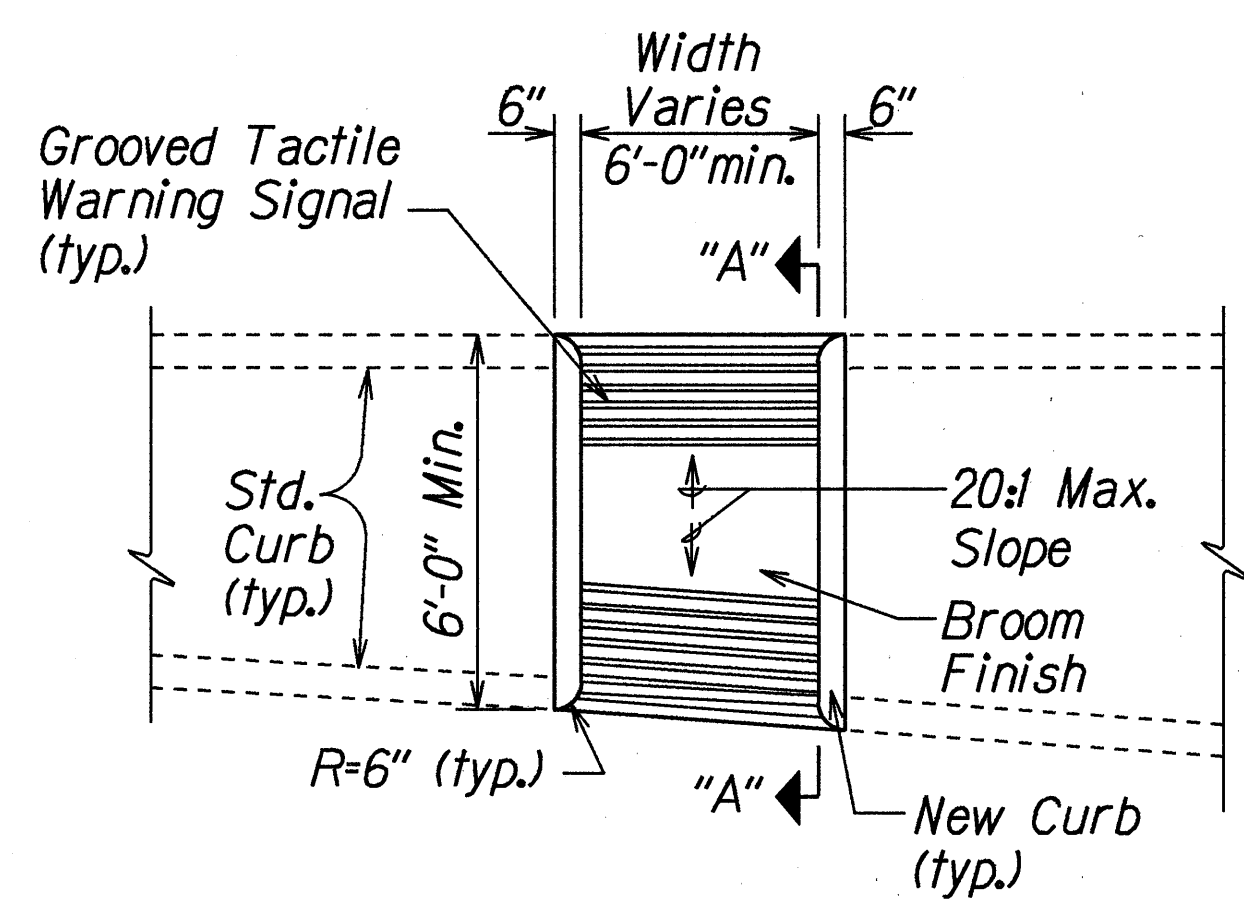
CURB RAMP DETAIL

PALI HIGHWAY RESURFACING
Country Club Road to Tunnel Entrance
Including Both Roads to Lookout
Project No. 61A-01-97M

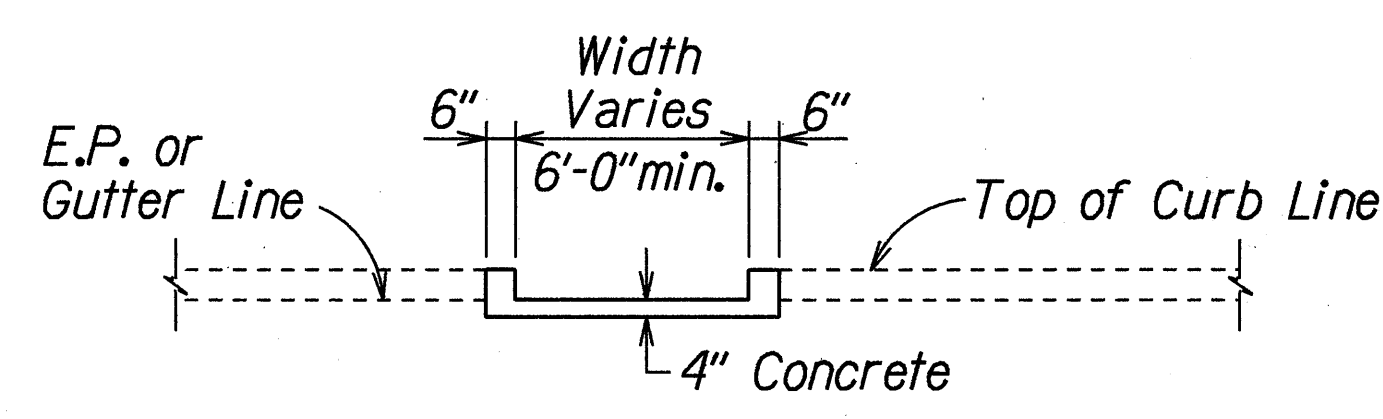
Not to Scale Date: May 1997

SHEET No. 8 OF 9 SHEETS

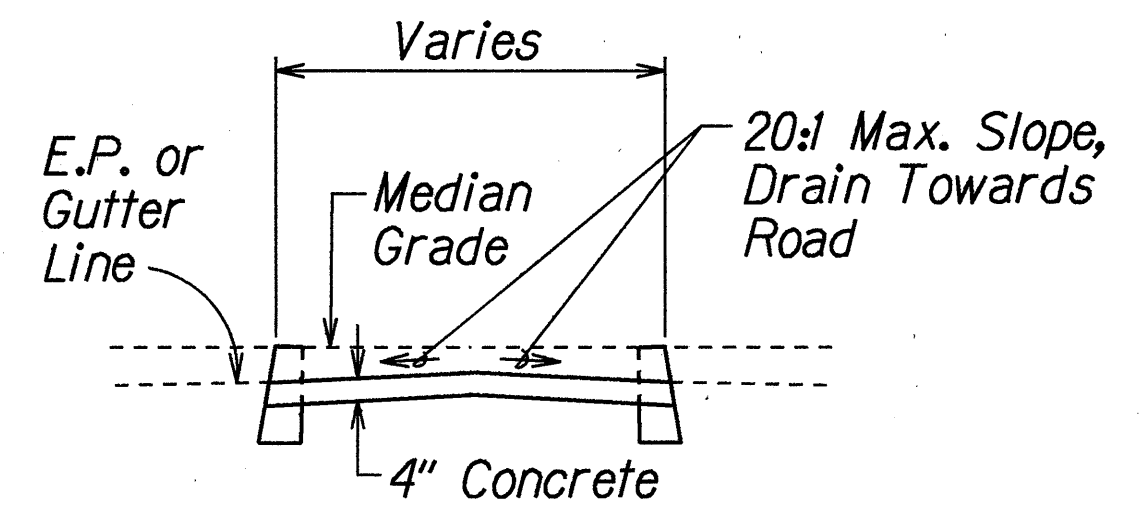
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	61A-01-97M	1997	22	84



PLAN

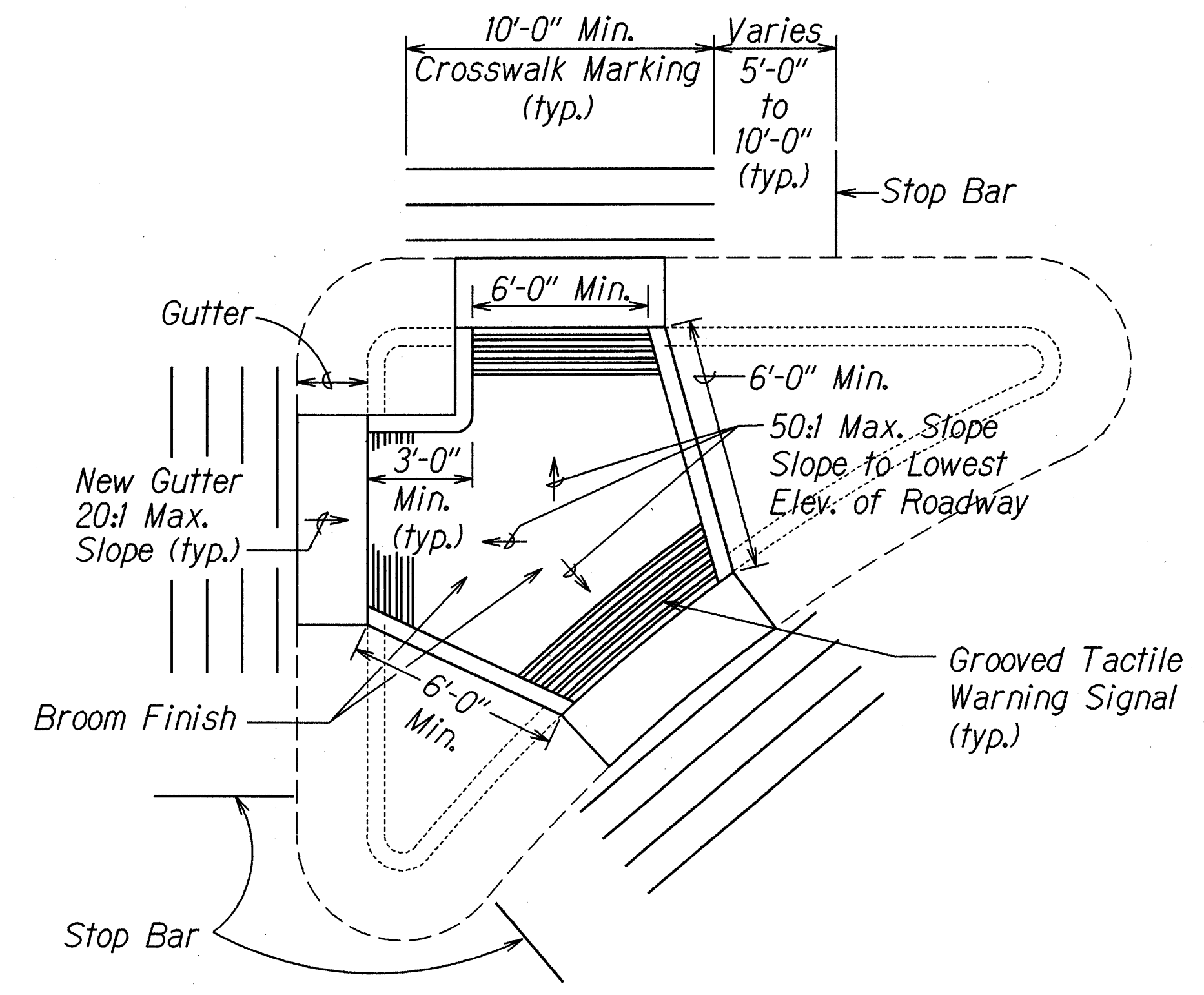


ELEVATION

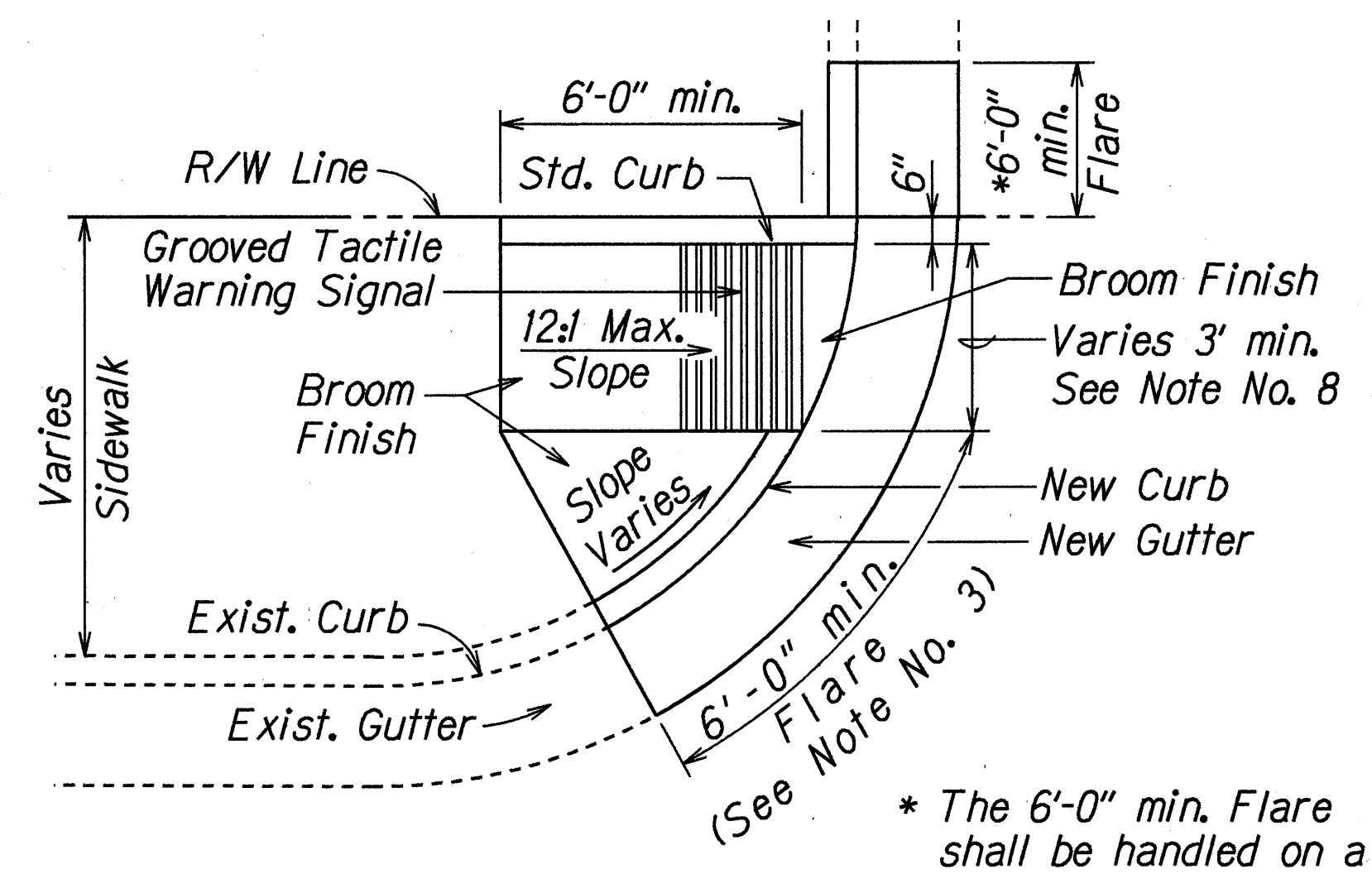


SECTION "A-A"

CURB RAMP - TYPE "C"
USE AT MEDIAN CROSSINGS, ISLANDS

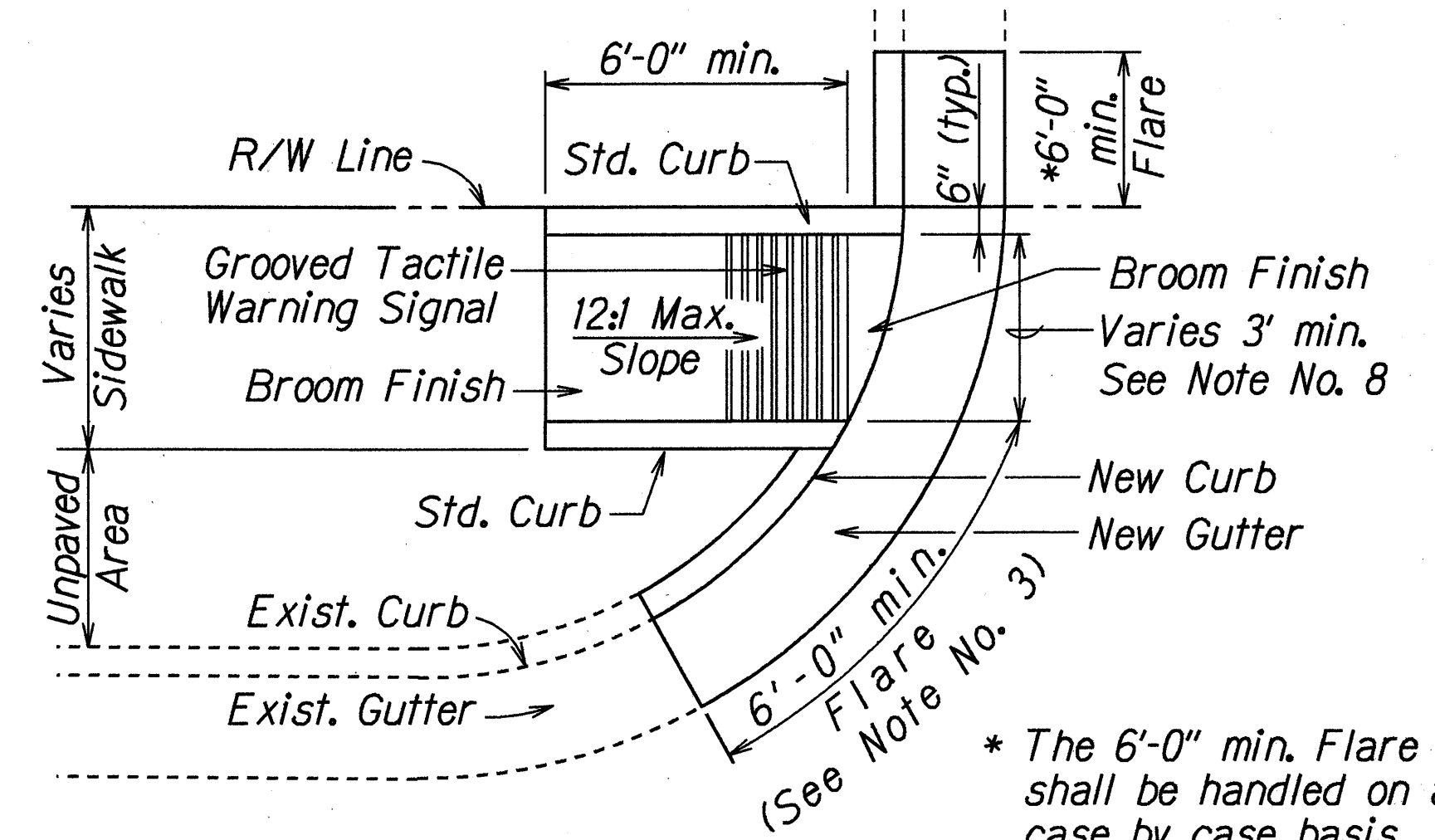


CURB RAMP - TYPE "C" MODIFIED



CURB RAMP - TYPE "D"

* The 6'-0" min. Flare shall be handled on a case by case basis.



CURB RAMP - TYPE "D" MODIFIED

* The 6'-0" min. Flare shall be handled on a case by case basis.

DATE	5/20/97
SURVEY PLOTTED BY	
DRAWN BY	
NOTED BY	
CHECKED BY	
IN.	

R4-197 3 of 3 7/15/97

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAIL

PALI HIGHWAY RESURFACING
Country Club Road to Tunnel Entrance
Including Both Roads to Lookout
Project No. 61A-01-97M

Not to Scale Date: May 1997

SHEET No. 9 OF 9 SHEETS