

SIGN SCHEDULE

SIGN SCHEDULE

STATION	LEFT	RIGHT	TYPE	ACTION (SEE LEGEND)	REMOVE	INSTALL (10 SQ. FT. OR LESS)		INSTALL (GREATER THAN 10 SQ. FT.)		DESTINATION SIGN PANEL (S.F.)
						W/POST	WO/POST	W/POST	WO/POST	
SDR 3(17)										
83+66		●	W4-2(R)	R	1	1				
85+80		●	R2-5b(45)-A(36"X48")	I				1		
86+43	●		W8-5	R	1	1				
88+80	●		R2-1(55)-A(36"X48")	I				1		
88+80		●	R2-1(45)-A(36"X48")	I				1		
103+10	●		R1-1	I		1				
103+66	●		R8-3(B)-a	R	1	1				
104+73		●	D-5 (<-- SCENIC POINT) (48"X24")	R	1			1		8.00
106+05	●		R5-1	R	1	1				
106+44	●		R1-1	R	1	1				
106+73	●		R1-1	R	1	1				
106+73	●		R6-1(L)	R	1		1			
106+73	●		R6-1(R)	R	1		1			
107+12	●		R5-1	R	1	1				
107+12	●		R3-1	I			1			
107+80	●		HVB LAUPAHOEHE PT.	— —						
107+95		●	W2-2	R	1	1				
108+82	●		R6-1(L)	R	1	1				
108+88	●		R6-1(L)	R	1	1				
108+88	●		R6-1(R)	R	1		1			
112+18		●	R1-1	R	1	1				
113+82		●	D-1 (HILO/LAUPAHOEHOE)(114"X48")	R	1					38.00
114+20	●		D-6 (SCENIC POINT -->) (48"X24")	R	1			1		8.00
114+66		●	G (POLICE -->) (24'X24", 6", 6")	R	1	1				
115+33	●		W2-2	R	1	1				
116+52	●		FAP	— —						
116+85	●		R1-1	R	1	1				
F-019-2(3)										
6+62		●	W14-1	R	1	1				
6+97		●	R1-1	R	1	1				
7+18		●	G (LAUPAHOEHOE/POLICE -->) (39"X24")	— —						
7+50	●		R8-3(R)-a	I		1				
8+02	●		R7-1-A(R)	X	1					
9+37	●		R7-1-A(D)	X	1					
9+37	●		R8-3(B)-a	I		1				

STATION	LEFT	RIGHT	TYPE	ACTION (SEE LEGEND)	REMOVE	INSTALL (10 SQ. FT. OR LESS)		INSTALL (GREATER THAN 10 SQ. FT.)		DESTINATION SIGN PANEL (S.F.)
						W/POST	WO/POST	W/POST	WO/POST	
9+77	●		G (←-POLICE) (24"X24', 6", 6")	R	1	1				
10+71	●		R7-1-A(D)	X	1					
10+71	●		R8-3(B)-a	I		1				
11+81	●		R7-1-A(L)	X	1					
11+81	●		R8-3(L)-a	I		1				
12+03	●		D-2 (HONOKAA/LAUPAHOEHOE) (114"X48")	R	1					38.00
27+69		●	R2-5b(45)	X	1					
31+71	●		R2-1(55)	X	1					
31+71		●	R2-1(45)	X	1					
32+78		●	W2-2	X	1					
36+00		●	W2-2	I		1				
38+20	●		R15-1d "UNLAWFUL TO LITER" (30"X24")	R	1	1				
38+99		●	"DEPT. OF EDUCATION" (48"X24")	— —						
38+99		●	D (SOLID WASTE TRANSFER STATION) (38"X18")	— —						
39+34	●		HVB LIBRARY & SCHOOL	— —						
39+71		●	R1-1	R	1	1				
40+47		●	R15-1d "UNLAWFUL TO LITER" (30"X24")	R	1	1				
43+39	●		W2-2	R	1	1				
44+03		●	R2-1(45)a (36"X48")	X	1					
44+60		●	W12-2(16'-0")	— —						
F-SDR 3(5)										
49+50	●		FAP	— —						
51+00		●	W2-2	I		1				
53+74	●		W12-2(16'-0")	Rel	1	1				
54+17		●	R1-1	R	1	1				
53+74	●		R1-1	R	1	1				
57+83		●	W2-1	X	1					
59+00		●	W2-1	I		1				

LEGEND: *R:* Replace Existing Sign
 X: Remove Existing Sign
 I: New Sign Installation
 — —: Existing Sign to Remain
 Rel: Relocate Existing Sign

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**SIGN SCHEDULE, PAVEMENT
MARKING SUMMARY**

**HAWAII BELT ROAD RESURFACING
KILAUE GULCH TO AHOLE BRIDGE
F.A. PROJECT NO. STP-019-2(33)**

Scale: None Date: July, 1994

SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-019-2(33)	1994	18	25

SIGN SCHEDULE (Continued)										
STATION	LEFT	RIGHT	TYPE	ACTION (SEE LEGEND)	REMOVE	INSTALL (10 SQ. FT. OR LESS)		INSTALL (GREATER THAN 10 SQ. FT.)		DESTINATION SIGN PANEL (S.F.)
						W/POST	WO/POST	W/POST	WO/POST	
60+00	●		W2-2	I		1				
60+52	●		R2-1(45)a (36"X48")	X	1					
62+56	●		RI-1	R	1	1				
62+99		●	RI-1	R	1	1				
67+29	●		W2-1	R	1	1				
72+11		●	D-3 (←- PAPAALOA) (84"X24")	R	1			1		14.00
77+79	●		RI-1	R	1	1				
78+25		●	RI-1	R	1	1				
82+64	●		R2-1(45)-A (36"X48")	R	1			1		
82+89		●	R2-1(55)-A (36"X48")	R	1			1		
85+16	●		D-4 (PAPAALOA -->) (84"X24")	R	1			1		14.00
86+50	●		R2-5b(45) (36"x48")	I				1		
93+10	●		R2-5b(45)	X	1					
99+90		●	RI-1	R	1	1				
SDR 3(16)										
85+10	●		W (FALLING ROCKS) (30"X30")	R	1	1				
87+49	●		W1-2(L)	R	1	1				
87+49	●		W13-1(40)	R	1		1			
89+80		●	W2-2	R	1	1				
91+71	●		RI6-1	R	1	1				
91+71		●	RI6-1	I		1				
92+33		●	W1-4(R)	R	1	1				
94+56		●	RI-1	R	1	1				
96+52		●	"ADOPT-A-HIGHWAY"	— —						
96+57	●		"ADOPT-A-HIGHWAY"	— —						
97+87		●	W1-2(L)	X	1					
99+50	●	●	W2-2	I		1				
101+46	●		W2-2	X	1					
102+35	●		W1-2(L)	X	1					
110+99	●		W1-2(R)	X	1					
111+70	●		W1-4(R)	I		1				
TOTALS					64	49	5	8	0	120

LEGEND: R: Replace Existing Sign
X: Remove Existing Sign
I: New Sign Installation
— —: Existing Sign to Remain
Rel: Relocate Existing Sign

PAVEMENT MARKING SUMMARY	
DESCRIPTION	QUANTITY
THERMOPLASTIC EXTRUSION OR TAPE, TYPE I DOUBLE 4-INCH PAVEMENT STRIPE (YELLOW) 4-INCH PAVEMENT STRIPE (YELLOW)	11,500 L.F. 4,950 L.F.
THERMOPLASTIC EXTRUSION 4-INCH PAVEMENT STRIPE (WHITE) 8-INCH PAVEMENT STRIPE (WHITE) 12-INCH PAVEMENT STRIPE (WHITE)	15,700 L.F. 21,200 L.F. 350 L.F.
THERMOPLASTIC EXTRUSION OR TAPE, TYPE III 12-INCH PAVEMENT STRIPE (WHITE) ARROW, PAVEMENT MARKING	400 L.F. 5 EACH
PAVEMENT MARKERS TYPE A TYPE C TYPE D TYPE H TYPE J	20 EACH 1,030 EACH 780 EACH 130 EACH 690 EACH

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY G. HAMILTON	12/7/94
DESIGNED BY E. TAKESHI		
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGN SCHEDULE, PAVEMENT MARKING SUMMARY

HAWAII BELT ROAD RESURFACING
KILAUE GULCH TO AHOLE BRIDGE
F.A. PROJECT NO. STP-019-2(33)

Scale: None Date: July, 1994

SHEET No. 2 OF 2 SHEETS

REFLECTOR AND OBJECT MARKER SCHEDULE

STATION*		LEFT	RIGHT	RM-2		RM-3		RM-3 (Bi)		RM-4 STEEL POST	TYPE II NO POST	SEGMENT LENGTH	REMARKS
FROM	TO			STEEL POST	FLEX POST	STEEL POST	NO POST	STEEL POST	FLEX POST				
84+00	86+64	●		1		2				1		264	KILAU BRIDGE
84+00	86+64		●	1		4				1		264	KILAU BRIDGE
88+86	90+22	●				4				1		136	KILAU BRIDGE
88+86	89+86		●			2				1		100	KILAU BRIDGE
90+01	— —	●						1					HEADWALL
90+02	— —		●						2				HEADWALL
96+79	101+72	●		6	1			1				493	
98+15	98+56		●	2		1	1					41	
98+84	99+63		●	3			1	1				79	
103+60	105+60		●	2									
103+71	— —	●		1			1			1			CIVIL DEFENSE POLE
103+71	106+70	●		4	1		2					299	
104+18	104+26		●						2			8	HEADWALL
106+73	— —	●							1				STOP SIGN
108+80	116+94	●				13						814	
111+37	— —		●						1				DITCH
111+53	— —		●						2				HEADWALL
112+22	— —		●						2				HEADWALL
112+53	— —		●						1				DITCH
112+90	112+99		●						2			9	HEADWALL
112+96	— —	●						1					HEADWALL
115+01	— —		●						1				HEADWALL
116+69	— —		●						2				HEADWALL
6+82	7+25	●		5						1		43	
7+15	— —		●								1		UTILITY POLE
7+50	— —		●						1				POLE GUY ANCHOR
11+99	12+99	●			1	2				1		100	MANOWAIOPAE BR.
11+99	12+99		●		2	2				1		100	MANOWAIOPAE BR.
15+33	16+33		●		2					1		100	MANOWAIOPAE BR.
15+33	16+33	●			2	2				1		100	MANOWAIOPAE BR.
19+84	22+09	●				3				1		225	KUWAIKAHI BRIDGE
20+73	21+73		●		3	1				1		100	KUWAIKAHI BRIDGE
23+75	24+75		●		2					1		100	KUWAIKAHI BRIDGE
24+11	40+24	●		15	1	5				1		1613	KUWAIKAHI BRIDGE
36+38	— —	●						1					
36+38	— —		●						2				

STATION*		LEFT	RIGHT	RM-2		RM-3		RM-3 (Bi)		RM-4 STEEL POST	TYPE II NO POST	SEGMENT LENGTH	REMARKS
FROM	TO			STEEL POST	FLEX POST	STEEL POST	NO POST	STEEL POST	FLEX POST				
38+23	39+13		●			7						140	SCHOOL ROAD
38+70	— —	●							2				HEADWALL
38+70	— —		●						2				HEADWALL
43+09	45+34		●			5				1		225	KIHALANI BRIDGE
44+34	45+34	●			1	1				1		100	KIHALANI BRIDGE
48+68	49+81		●			2				1		113	KIHALANI BRIDGE
48+68	49+68	●			1	3				1		100	KIHALANI BRIDGE
50+26	50+68		●		2					2		42	PED. OVERPASS
50+66	51+08	●			2					2		42	PED. OVERPASS
52+76	54+89	●		3	2							213	
54+30	— —		●								1		UTILITY POLE
56+56	62+56	●		11			4					625	
60+30	— —	●						1					HEADWALL
60+30	— —		●						2				HEADWALL
61+83	62+54		●		3							71	BERMS
63+15	— —		●								1		UTILITY POLE
62+92.5	64+30	●		2	1		2			1		137.5	KAIWILAHILAHI BR.
63+08.5	64+46		●	2	2	2	2			1		137.5	KAIWILAHILAHI BR.
66+59	72+72	●		4		4				1		613	KAIWILAHILAHI BR.
66+65	67+65		●		2					1		100	KAIWILAHILAHI BR.
69+48	— —		●						2				HEADWALL
69+48	— —	●						1					HEADWALL
77+71	— —		●						1				INLET BOX
78+30	— —		●					1					HEADWALL
78+27	80+22		●	2		4	2			1		195	MOANALULU BRIDGE
78+41.5	80+04	●		2	1	1	2			1		162.5	MOANALULU BRIDGE
82+57	83+57	●			2	2				1		100	MOANALULU BRIDGE
82+67	83+67		●		2					1		100	MOANALULU BRIDGE
86+97	— —	●							2				HEADWALL

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
	DRAWN BY <i>G. Altomalo</i>	<i>19-12-94</i>
NOTE BOOK	TRACED BY _____	_____
<i>dd2-george</i>	DESIGNED BY <i>R. Takeasu</i>	_____
<i>hprsch6dgn</i>	QUANTITIES BY _____	_____
	CHECKED BY _____	_____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REFLECTOR AND OBJECT
MARKER SCHEDULE

HAWAII BELT ROAD RESURFACING
KILAUE GULCH TO AHOLE BRIDGE
F.A. PROJECT NO. STP-019-2(33)

Scale: None Date: July, 1994

SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-019-2(33)	1994	20	25

REFLECTOR AND OBJECT MARKER SCHEDULE (Continued)

STATION*		LEFT	RIGHT	RM-2		RM-3		RM-3 (Bi)		RM-4	TYPE II NO POST	SEGMENT LENGTH	REMARKS
FROM	TO			STEEL POST	FLEX POST	STEEL POST	NO POST	STEEL POST	FLEX POST	STEEL POST			
88+30	— —		●						2				HEADWALL
84+89	101+95	●		18	2							1706	
94+12	— —		●						2				HEADWALL
94+12	— —	●						1					HEADWALL
98+00	— —	●						1					HEADWALL
98+00	— —		●						2				HEADWALL
97+40	99+37		●	3			2					197	
99+93	100+93		●	2		1	2					100	
9+77	11+27	●				2				1		150	KAALAU BRIDGE
10+31	11+31		●			4				1		100	KAALAU BRIDGE
12+59	13+59	●			1	3				1		100	KAALAU BRIDGE
12+63	13+63		●		1	1				1		100	KAALAU BRIDGE
88+26	89+60	●							4			134	CRM WALL
88+80	— —	●							2				HEADWALL
88+80	— —		●						2				HEADWALL
91+03	91+61		●						2			58	DROP INLET/DITCH
91+30	92+05	●				2		1				75	
94+23	96+86	●		4	1		2					263	
95+04	97+53		●	3								249	
96+03	— —	●							1				HEADWALL
96+03	— —		●						2				HEADWALL
101+93	102+74	●				2				1		81	POHAKUPUKA BRIDGE
102+09	102+90		●			4				1		81	POHAKUPUKA BRIDGE
103+63	108+68	●		4		4				1		506	POHAKUPUKA BRIDGE
103+71	104+52		●			2				1		81	POHAKUPUKA BRIDGE
111+48	4+15	●		2	1	1	2					145	
111+75	— —	●						1					HEADWALL
111+75	— —		●						2				HEADWALL
5+49	— —	●							2				HEADWALL
5+49	— —		●						2				HEADWALL
7+20	— —	●								1			UTILITY POLE
7+96	9+75	●							4				SHOULDER DROP OFF
8+27	— —	●							2				HEADWALL
8+27	— —		●						2				HEADWALL

STATION*		LEFT	RIGHT	RM-2		RM-3		RM-3 (Bi)		RM-4	TYPE II NO POST	SEGMENT LENGTH	REMARKS
FROM	TO			STEEL POST	FLEX POST	STEEL POST	NO POST	STEEL POST	FLEX POST	STEEL POST			
9+75	10+00	●							1	1		25	AHOLE BRIDGE
9+75	10+00		●	2			2			1		50	AHOLE BRIDGE
11+36	12+36	●			1	3				1		100	AHOLE BRIDGE
11+36	12+36		●		1	1				1		100	AHOLE BRIDGE
TOTALS				104	44	102	27	12	64	42	4		

* Stations were referenced from State Strip Maps and may vary in the field.
Final Marker locations are to be approved by the Engineer.

ORIGINAL PLAN	DATE 12-94
SURVEY PLOTTED BY DESIGNED BY TRACED BY NOTES BOOK QUANTITIES BY CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**REFLECTOR AND OBJECT
MARKER SCHEDULE**
HAWAII BELT ROAD RESURFACING
KILAU GULCH TO AHOLE BRIDGE
F.A. PROJECT NO. STP-019-2(33)
Scale: None
Date: July, 1994
SHEET No. 2 OF 2 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY DATE	DESIGNED BY DATE	CHECKED BY DATE	NOTED BY DATE	QUANTITIES BY DATE	CHECKED BY DATE	12-24

BRIDGE JOINT WORK QUANTITIIES												
BRIDGE	NEW A.C. THICKNESS (INCHES)	TRAVELED WAY LENGTH (L.F.)	WIDTH OF GUTTERS (L.F.)	SKEW OF BRIDGE (DEG.)	JOINT LENGTH (L.F.)	NO. OF JOINTS	TOTAL JOINT LENGTH (L.F.)	WIDTH OF RAILINGS (L.F.)	WIDTH OF SIDEWALK (NORMAL) (L.F.)	WIDTH OF SIDEWALK (SKEW) (L.F.)	HEIGHT OF SIDEWALK CURBS (L.F.)	TOTAL-CURBS SIDEWALKS AND RAILINGS (L.F.)
Kilau	1.5	24.0	4.0	0.0	28.0	2	56	2.5	4.0	4.0	1.5	16.0
Manowaiopae	1.5	24.0	4.0	0.0	28.0	2	56	2.5	4.0	4.0	1.5	16.0
Kuwaikahi	1.5	24.0	4.0	45.0	39.6	3	119	2.5	4.0	5.7	1.5	29.1
Kihalani	1.5	24.0	4.0	0.0	28.0	2	56	2.5	4.0	4.0	1.5	16.0
Kaiwilahilahi	1.5	24.0	4.0	19.4	29.7	1	30	2.5	4.0	4.2	1.5	8.2
		24.0	4.0	23.3	30.5	1	30	2.5	4.0	4.4	1.5	8.4
Moanalulu	1.5	24.0	4.0	30.0	32.3	2	65	2.5	4.0	4.6	1.5	17.2
Kaalau	2.0	24.0	4.0	8.4	28.3	4	113	2.5	4.0	4.0	1.5	32.0
TOTAL							525					220

NOTE: The joint sealant along the curb, sidewalk, and rail sections shall be replaced according to construction requirements of Section 503.03(1)-Joint Sealing, of the Standard Specifications. This work shall be considered incidental to Item Nos. 520.0100, 520.0200, 520.0300, 520.0400, 520.0500, 520.0600, and 520.0700, as applicable.

BRIDGE DECK OVERLAY REMOVAL SCHEDULE			
BRIDGE NAME	LENGTH (L.F.)	WIDTH (L.F.)	APPROX. AREA (S.Y.)
Kilau	225	24.0	600
Manowaiopae	235	24.0	627
Kuwaikahi	194	24.0	517
Kihalani	332	24.0	885
Kaiwilahilahi	220	24.0	587
Moanalulu	247	24.0	659
Kaalau	133	24.0	355
Pohakupuka	66	24.0	176
Ahole	136	24.0	363
TOTAL			4,768

- NOTE:
- Existing A.C. Thickness Varies from 1.5" to 4". Contractor to Verify in Field.
 - For Pohakupuka Bridge, the Existing A.C. Pavement is Underlain by Aggregate Base Course that Varies in Depth from 4" to 10". The Aggregate Base Course shall remain after A.C. Removal and Finish Rolled prior to placement of the New A.C. Overlay.

MILEPOST AND ROUTE MARKER SCHEDULE						
PROJECT	STATION	LEFT	RIGHT	ROUTE MARKER SIGN NO. (ROUTE NO.)	REMOVE	INSTALL TYPE A ASSEMBLY
F-019-2(3)	30+04	●		M1-6D (19)	1	1
F-SDR 3(5)	110+01	●		M1-6D (19)	1	1
	110+30		●	M1-6D (19)	1	1
SDR 3(3)	8+39		●	M1-6D (19)	1	1
	8+40	●		M1-6D (19)		1
TOTAL					4	5
PROJECT	STATION	LEFT	RIGHT	MILE POST D10-5(12"X36") MILE POST NO. (RTE. NO.)	REMOVE	INSTALL WITH POST (BI-DIRECTIONAL)
F-019-2(3)	25+07	●		25 (19)	1	1
F-SDR 3(5)	77+71	●		24 (19)	1	1
SDR 3(16)	99+04	●		21 (19)	1	1
TOTALS					3	3

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-019-2(33)	1994	21	25

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
BRIDGE DECK AND MILEPOST ROUTE MARKER SCHEDULES	
HAWAII BELT ROAD RESURFACING KILAU GULCH TO AHOLE BRIDGE F.A. PROJECT NO. STP-019-2(33)	
Scale: None	Date: July, 1994
SHEET No. 1 OF 1 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-019-2(33)	1994	22	25

MANHOLE AND VALVE BOX SCHEDULE

PROJECT	STATION	OFFSET FROM ϕ (FT.)		TYPE		REMARKS
		LEFT	RIGHT	WMH	WV	
SDR 3(17)	86+53	16.0			1	IN CONC. RAMP
	103+33		15.2		1	
	103+36		18.0	1		
	104+71		19.1	1		
	111+27		21.1		1	
	111+30		18.5		1	
	116+16		17.8		1	
F-019-2(3)	8+55	23.7		1		
	8+59	23.7		1		
F-SDR 3(5)	55+57		14.3		1	
	55+63		14.2		1	
	56+42	14.4			1	
	62+49		17.4		1	
	62+53		20.2		1	
	62+56		17.4		1	
	62+59		17.4	1		
	106+03	19.0		1		
	109+79	18.5			1	
TOTALS				6	12	

CENTERLINE AND REFERENCE SURVEY MONUMENT SCHEDULE

PROJECT	STATION	MONUMENT TYPE	RECONSTRUCT CENTERLINE AND REFERENCE MON. (ITEM NO. 613.0120)	CENTERLINE OFFSET (FT.)	EXISTING DEPTH (FT.)
SDR 3(17)	84+60.91	R/W MON.	1	1.00 R	0.20
	93+90.32	R/W MON.	1	0.70 R	0.26
	100+77.62	R/W MON.	1	0.00	0.22
	111+45.89	P.C. MON.	1	0.00	0.22
F-019-2(3)	10+18.33	P.T. MON.	1	0.30 R	0.23
	31+66.06	P.C. MON.	1	0.10 L	0.20
	38+54.93	P.T. MON.	1	0.00	0.21
F-SDR-019-2(1)	45+00	PROJ. MON.	1	0.40 L	0.27
SDR 3(5)	49+47	PROJ. MON.	1	0.20 L	0.20
	57+31.59	P.C. MON.	1	0.20 R	0.22
	62+70	P.O.C. MON.	1	0.00	0.00
	66+69.21	P.T. MON.	1	0.00	0.34
	76+00	P.O.T. MON.	1	0.00	0.19
	98+01.59	P.C. MON.	1	0.10 R	0.20
	109+34.09	P.T. MON.	1	0.20 L	0.22
SDR 3(22)	11+28.50	PROJ. MON.	1	0.10 L	0.20
TOTAL			16		

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MANHOLE, VALVE BOXES & REF.
SURVEY MONUMENT SCHEDULE

HAWAII BELT ROAD RESURFACING
KILAU GULCH TO AHOLE BRIDGE
F.A. PROJECT NO. STP-019-2(33)

Scale: NoneDate: July, 1994

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-019-2(33)	1994	23	25

GUARDRAIL SCHEDULE

FROM	TO	LEFT	RIGHT	LENGTH OF NEW GR. (FT.)	GUARDRAIL END TREATMENT				BRIDGE NAME	GUARDRAILS TO BE REMOVED	REMARKS
					LEADING	RADIUS	TRAILING	RADIUS			
86+14	86+64		●	— —	TO EXIST.		BRIDGE		KILAU	50	TYPE I BRIDGE CONNECTION
86+14	86+64	●		— —	BRIDGE		TO EXIST.		KILAU	50	TYPE I BRIDGE CONNECTION
88+86	89+49		●	12.5	BRIDGE		F		KILAU	25	TYPE I BRIDGE CONNECTION
88+86	89+36	●		— —	TO EXIST.		BRIDGE		KILAU	50	TYPE I BRIDGE CONNECTION
90+09	90+22	●		12.5	TO EXIST.		C		KILAU	— —	
96+29	96+91.5	●		62.5	TO EXIST.		F		— —	12.5	
97+77.5	98+40		●	62.5	C		TO EXIST.		— —	25	
100+97	103+34.5	●		250	G+	*R=25'	TO EXIST.		— —	37.5	
103+60	105+60		●	200	C		F		— —	— —	HEADWALL/OPEN DITCH
6+82	7+25	●		25	G+	*R=20'	TO EXIST.		— —	37.5	KEEP EXISTING UTILITY POLE 2-FT. CLEAR FROM POST
8+00	8+75		●	75	G		G		— —	75	ALONG SIDE ROAD
11+99	12+99	●		25	BRIDGE		BCT		MANOWAIOPAI	— —	TYPE IA BRIDGE CONNECTION
12+36	12+99		●	12.5	C		BRIDGE		MANOWAIOPAI	50	TYPE IA BRIDGE CONNECTION
15+33	15+96		●	12.5	BRIDGE		F		MANOWAIOPAI	— —	TYPE IA BRIDGE CONNECTION
15+33	16+08	●		— —	BCT		BRIDGE		MANOWAIOFAI	62.5	TYPE IA BRIDGE CONNECTION
15+33	15+33	●		25	— —		— —		— —	18	PERPENDICULAR TO HIGHWAY ALONG TOP OF GULCH
19+84	22+09	●		175	BRIDGE		F		KUWAIKAHI	100	TYPE I BRIDGE CONNECTION
21+10	21+73		●	12.5	C		BRIDGE		KUWAIKAHI	50	TYPE I BRIDGE CONNECTION
23+75	25+00		●	50	BRIDGE		BCT		KUWAIKAHI	— —	TYPE I BRIDGE CONNECTION
24+11	40+24	●		1537.5	BCT		BRIDGE		KUWAIKAHI	1537.5	TYPE I BRIDGE CONNECTION
42+81	43+56		●	— —	— —		— —		— —	75	ALONG MAUKA RIGHT-OF-WAY LINE
43+09	45+34		●	175	C		BRIDGE		KIHALANI	62.5	TYPE IA BRIDGE CONNECTION
44+09	45+34	●		100	BRIDGE		BCT		KIHALANI	62.5	TYPE IA BRIDGE CONNECTION, OTHERS TO RELOCATE GUY POLE
48+68	49+81		●	62.5	F		BRIDGE		KIHALANI	100	TYPE I BRIDGE CONNECTION
48+68	49+68	●		25	BRIDGE		BCT		KIHALANI	75	TYPE I BRIDGE CONNECTION
52+76	54+89	●		162.5	BCT		BCT			37.5	
56+56	62+56	●		625	G+	*R=25'	G+	*R=25'		412.5	

ORIGINAL PLAN	SERIES PLotted BY	DATE
NOTE BOOK	DRAWN BY G. MULLER	7-12-94
QUANTITIES BY	DESIGNED BY R. TAKESHI	
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL & RECONSTRUCTION
AREA SCHEDULE

HAWAII BELT ROAD RESURFACING
KILAU GULCH TO AHOLE BRIDGE
F.A. PROJECT NO. STP-019-2(33)

Scale: NoneDate: July, 1994

SHEET No. 1 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-019-2(33)	1994	24	25

GUARDRAIL SCHEDULE (Continued)

FROM	TO	LEFT	RIGHT	LENGTH OF NEW GR. (FT.)	GUARDRAIL END TREATMENT				BRIDGE NAME	GUARDRAILS TO BE REMOVED	REMARKS
					LEADING	RADIUS	TRAILING	RADIUS			
62+92.5	64+30	●		100	BRIDGE		G+	*R=25'	KAIWILAHILAHI	50	TYPE I BRIDGE CONNECTION
63+08.5	64+46		●	100	G+	*R=25'	BRIDGE		KAIWILAHILAHI	50	TYPE I BRIDGE CONNECTION
66+59	72+72	●		562.5	C		BRIDGE		KAIWILAHILAHI	587.5	TYPE I BRIDGE CONNECTION
66+65	67+28		●	12.5	BRIDGE		F		KAIWILAHILAHI	— —	TYPE I BRIDGE CONNECTION
78+27	80+22		●	162.5	G+	*R=25'	BRIDGE		MOANALULU	212.5	TYPE I BRIDGE CONNECTION
78+41.5	80+04	●		125	BRIDGE		G+	*R=25'	MOANALULU	75	TYPE I BRIDGE CONNECTION
82+57	83+20	●		12.5	C		BRIDGE		MOANALULU	50	TYPE I BRIDGE CONNECTION
82+67	83+30		●	12.5	BRIDGE		F		MOANALULU	— —	TYPE I BRIDGE CONNECTION
84+89	87+89	●		300	TO EXIST.		F			— —	
97+40	99+37		●	212.5	C		G+	*R=20'		— —	
99+93	100+93		●	125	G+	*R=20'	F			— —	LOCATE TYPE F END ON LOWER SLOPE FOR MAINTENANCE
101+70	101+95	●		— —	BCT		TO EXIST.			— —	
109+60	111+10	●		100	BRIDGE		F		KAALAU	75	TYPE II BRIDGE CONNECTION
110+14	111+14		●	50	C		BRIDGE		KAALAU	75	TYPE II BRIDGE CONNECTION
12+59	13+47	●		37.5	C		BRIDGE		KAALAU	62.5	TYPE II BRIDGE CONNECTION
12+63	13+51		●	37.5	BRIDGE		F		KAALAU	50	TYPE II BRIDGE CONNECTION
94+23	95+11	●		62.5	TO EXIST.		BCT			37.5	
95+04	97+54		●	150	C		F			100	
96+24	96+89	●		75	G+	*R=15'	TO EXIST.			50	
101+93	102+74.25	●		25	— —		F		POHAKUPUKA	100	TYPE III BRIDGE CONNECTION
102+08.5	102+89.75		●	25	C		— —		POHAKUPUKA	25	TYPE III BRIDGE CONNECTION
102+74.25	103+61.75	●		87.5	— —		— —		POHAKUPUKA	— —	THRIE BEAM ALONG BRIDGE RAIL
102+89.75	103+71		●	81.25	— —		— —		POHAKUPUKA	— —	THRIE BEAM ALONG BRIDGE RAIL W/ ONE SEGMENT SHORTENED
103+61.75	108+68	●		450	C		— —		POHAKUPUKA	500	TYPE III BRIDGE CONNECTION
103+71	104+52.25		●	25	— —		F		POHAKUPUKA	25	TYPE III BRIDGE CONNECTION
3+90	4+15	●		— —	BCT		TO EXIST.			— —	

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED	DESIGNED BY	12-12-94
QUANTITIES BY	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**GUARDRAIL & RECONSTRUCTION
AREA SCHEDULE**

HAWAII BELT ROAD RESURFACING
KILAU GULCH TO AHOLE BRIDGE
F.A. PROJECT NO. STP-019-2(33)

Scale: NoneDate: July, 1994

SHEET No. 2 OF 3 SHEETS

ORIGINAL
PLAN

DATE
12-24

DESIGNED BY
R. Takaseu

CHECKED BY
R. Takaseu

NOTES

QUANTITIES BY

TRACED BY

DESIGNED BY

CHECKED BY

GUARDRAIL SCHEDULE (Continued)												
FROM	TO	LEFT	RIGHT	LENGTH OF NEW GR. (FT.)	GUARDRAIL END TREATMENT				BRIDGE NAME	GUARDRAILS TO BE REMOVED	REMARKS	
					LEADING	RADIUS	TRAILING	RADIUS				
9+75	10+00	●		--	BRIDGE		BCT		AHOLE	25	**TYPE I BRIDGE CONNECTION	
9+75	10+00		●	--	G+	* R=10'	BRIDGE		AHOLE	25	***TYPE I BRIDGE CONNECTION	
11+36	12+11	●		25	C		BRIDGE		AHOLE	75	TYPE I BRIDGE CONNECTION	
11+36	12+11		●	25	BRIDGE		F		AHOLE	12.5	TYPE I BRIDGE CONNECTION	
TOTAL				6,682					TOTAL	5,268		

- NOTES: 1. All guardrail posts shall be 8-foot lengths, unless otherwise directed by the Engineer.
2. The Engineer shall modify guardrail designs to fit the existing field conditions.
- * Actual radius and locations shall be determined in the field by the Contractor and approved by the Engineer prior to the ordering of curved guardrail sections. Curved guardrail sections shall be ordered in a timely manner to complete the Project within the contract completion date.
- ** Install modified Bridge End Connection with BCT End Treatment within 25-ft. Transition Section.
- *** Install modified Bridge End Connection with Type G End Treatment within 25-ft. Transition Section, including the last end section of the Rub Rail.
- G+ Modified Type G Flare. Contractor shall verify radius in the field.

RECONSTRUCTION AREA SCHEDULE							
PROJECT NO.	STATION		OFFSET FROM RD. C TO CENTER RECON. AREA (L.F.)		LENGTH (L.F.)	WIDTH (L.F.)	APPROX. AREA (SQ. FT.)
	FROM	TO	LEFT	RIGHT			
SDR 3(17)	84+15	84+60		2.5	45	5	225
	84+60	85+15		7.5	55	5	275
	85+50	85+65	6		15	12	180
	85+50	85+65		6.6	15	13.2	198
	88+86	90+80	9.5		194	5	970
	90+80	91+00	8		20	8	160
	91+00	93+40	10		240	4	960
	96+00	96+70	10		70	4	280
	100+75	104+20	10		345	4	1,380
	101+00	101+50		10	50	4	200
F-019-2(3)	7+20	7+60		3	40	6	240
	7+60	8+30		6	70	12	840
	9+60	10+00	10		40	4	160
	24+36	25+00	6		64	12	768
	24+36	25+00		6	64	12	768
	25+00	25+20	10		20	4	80
SDR 3(5)	52+48	52+68	3		20	6	120
	53+15	53+60		6	45	12	540
	53+40	54+20	9		80	6	480
	55+16	55+34	9		18	6	108
	56+26	56+78	9		52	6	312

PROJECT NO.	STATION		OFFSET FROM RD. C TO CENTER RECON. AREA (L.F.)		LENGTH (L.F.)	WIDTH (L.F.)	APPROX. AREA (SQ. FT.)
	FROM	TO	LEFT	RIGHT			
SDR 3(5)	57+00	58+65		10	165	4	660
	57+40	60+65	10		325	4	1,300
	58+65	59+06		6	41	12	492
	59+06	60+00		9	94	6	564
	67+15	68+48		9	133	6	798
	73+50	75+00	9		150	6	900
	78+40	79+65	9		35	6	210
	83+11	84+25	9		114	6	684
	92+00	93+00	10		100	4	400
	94+10	95+00	10		90	4	360
	98+11	98+31	6		20	12	240
	104+00	104+48		6	48	12	576
	105+40	107+80	10		240	4	960
	107+80	108+10	6		30	12	360
	108+10	109+00	9		90	6	540
	109+00	109+84	6		84	12	1,008
	110+08	110+61	2		53	4	212
	100+00	100+20		3	20	6	120
	105+00	106+00	9		100	6	600
	106+00	108+00		11	200	2	400
TOTAL							20,628

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-019-2(33)	1994	25	25

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL & RECONSTRUCTION
AREA SCHEDULE

HAWAII BELT ROAD RESURFACING
KILAUE GULCH TO AHOLE BRIDGE
F.A. PROJECT NO. STP-019-2(33)

Scale: NoneDate: July, 1994

SHEET No. 3 OF 3 SHEETS