

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-037-K(19)	1994	21	30

GUARDRAIL SCHEDULE								
STATION TO STATION	OFFSET	TYPE -3 SINGLE	TYPE 3TG	TYPE 3TS	TERMINAL SECTION			
					T Y P E			
UNIT USED		L.F.	L.F.	L.F.	"C" EA.	"F" EA.	MODIFIED "G" EA.	BCT EA.
4+50 - 8+00	Rt.	325					1	1
16+50 - 24+50	Lt.	800				1	1	
21+25 - 24+50	Rt.	275						2
29+00 - 31+00	Lt.	175			1			1
29+20 - 31+00	Rt.	180			1	1		
33+75 - 37+50	Lt.	350				1		1
35+00 - 38+25	Rt.	300			1			1
52+25 - 56+50	Rt.	400			1		1	
52+50 - 56+75	Lt.	425				1	1	
57+00 - 60+75	Lt.	375			1		1	
59+00 - 60+80	Rt.	180			1	1		
64+50 - 67+00	Lt.	250				1	1	
69+75 - 74+00	Lt.	400			1			1
70+00 - 72+25	Rt.	200			1			1
83+25 - 87+75	Lt.	375					1	1
84+50 - 86+50	Rt.	150						2
93+00 - 94+25	Rt.	100					1	1
93+25 - 95+00	Lt.	150					1	1
97+80 - 102+50	Lt.	445					1	1
107+00 - 110+00	Lt.	275						2
106+00 - 109+50	Rt.	300						2
110+75 - 114+80	Lt.	380			1			1
112+00 - 113+50	Rt.	150			1		1	
118+25 - 123+00	* Rt.	255	50	171' -3"	1	1		
117+50 - 119+85	* Lt.	205	25			1		
121+50 - 123+00	* Lt.	125	25		1			
130+40 - 134+50	Lt.	410			1		1	
131+60 - 133+80	Rt.	220			1		1	
141+30 - 142+85	Lt.	155			1		1	
141+00 - 142+70	Rt.	170				1	1	
158+00 - 160+00	Rt.	175					1	1
159+00 - 161+00	Lt.	200					2	
161+20 - 169+15	Lt.	795			1		1	
161+00 - 165+50	Rt.	425				1		1
170+95 - 180+45	Lt.	950			1	1		
174+00 - 179+00	Rt.	500			1	1		
183+00 - 188+50	Lt.	550					2	
183+00 - 189+00	Rt.	600					2	
199+00 - 201+00	Rt.	150						2
200+00 - 203+20	Lt.	270						2
204+50 - 211+00	Lt.	300			1		1	
205+00 - 207+00	Rt.	175			1		1	
219+00 - 225+00	Lt.	600					2	
219+00 - 224+50	Rt.	550					2	
234+50 - 249+50	Lt.	1,500					2	
234+50 - 249+50	Rt.	1,500					2	
Subtotal		17,740	100	171' -3"	20	12	33	25

GUARDRAIL NOTES:

- Guardrail locations and quantities as shown on the plans are approximate only. The Contractors shall layout these locations and quantities for the Engineer's approval. Work shall commence only upon obtaining written approval from the Engineer.
- Terminal locations and types may be adjusted in the field to suit field conditions.
- Materials that will be removed (signs, sign posts, guardrail and appurtenances, etc.) shall be delivered to State Highway baseyard in Kahului. These materials shall not be stockpiled at the project site but shall be delivered immediately upon removal. This work will not be paid for separately but shall be considered incidental to appropriate signs and guardrail pay items.
- Removal of guardrails and posts will not be paid for separately but shall be considered to be incidental to guardrail pay items.
- The exact location and limits of guardrail installation and resetting shall be bid out by the Contractor and approved by the Enginer.
- The Contractor shall adjust the height of existing guardrail post such that the guardrail element will be at the required height as specified in the Contract or as ordered by the Engineer. The Contractor shall excavate and compact the ground around the post with suitable material. The Contractor shall compact as required by the post adjustment.
- The Contractor shall use 12'-6" long guardrail sections, unless otherwise shown on plans or as directed by the Engineer.

* See Plan Sheet Nos. 23-25 for guardrail layout and details at bridges.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED	DRAWN BY	13-23-94
DESIGNED BY	CHECKED BY	
QUANTITIES BY		
IN CHARGE		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

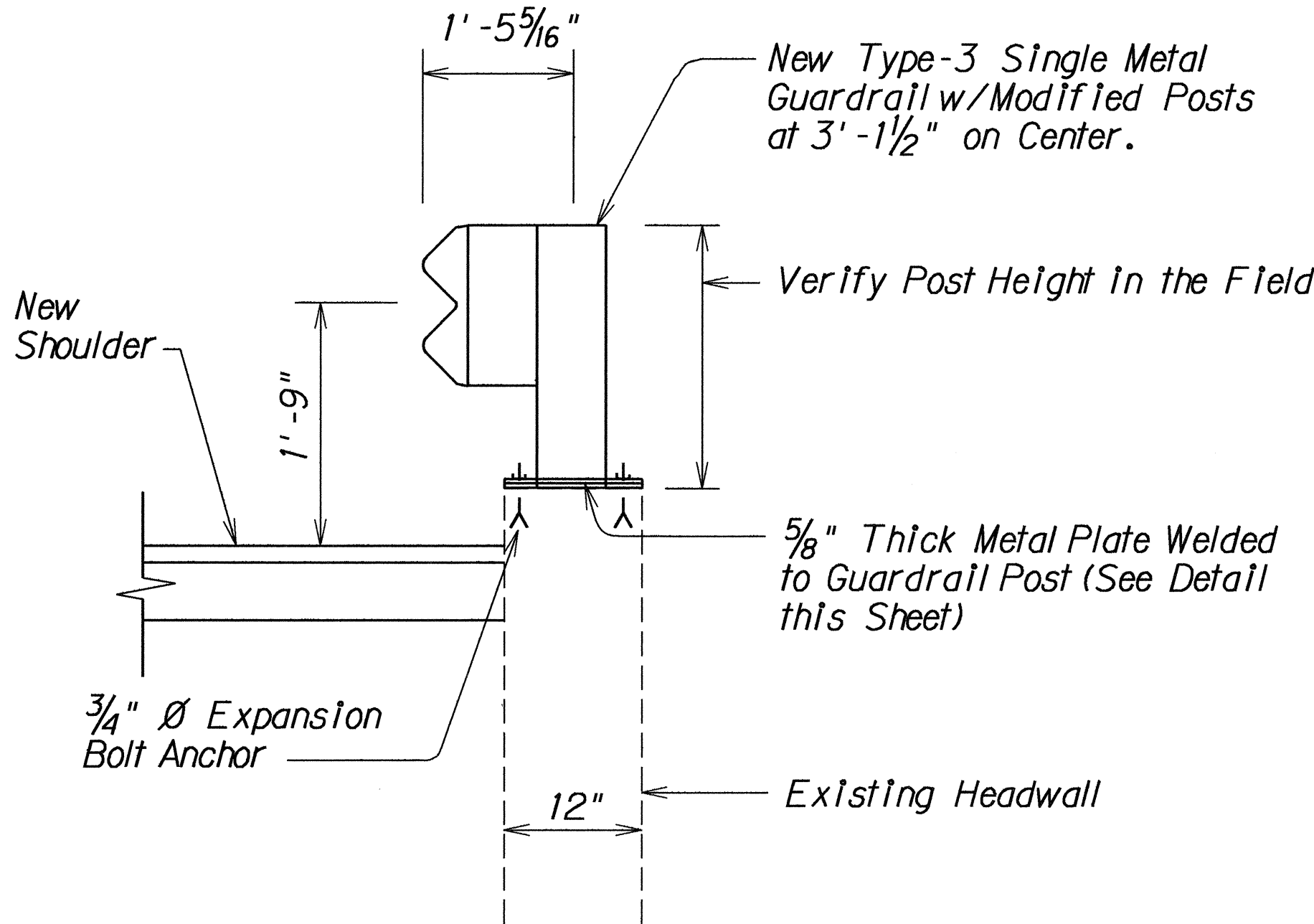
GUARDRAIL SCHEDULE
KULA HIGHWAY
GUARDRAIL & SHOULDER IMPROVEMENTS
Vicinity of Kekaulike Ave. to Lower Kula Rd.
Fed. Aid Proj. No. STP-037-K(19)

Date: July, 1993

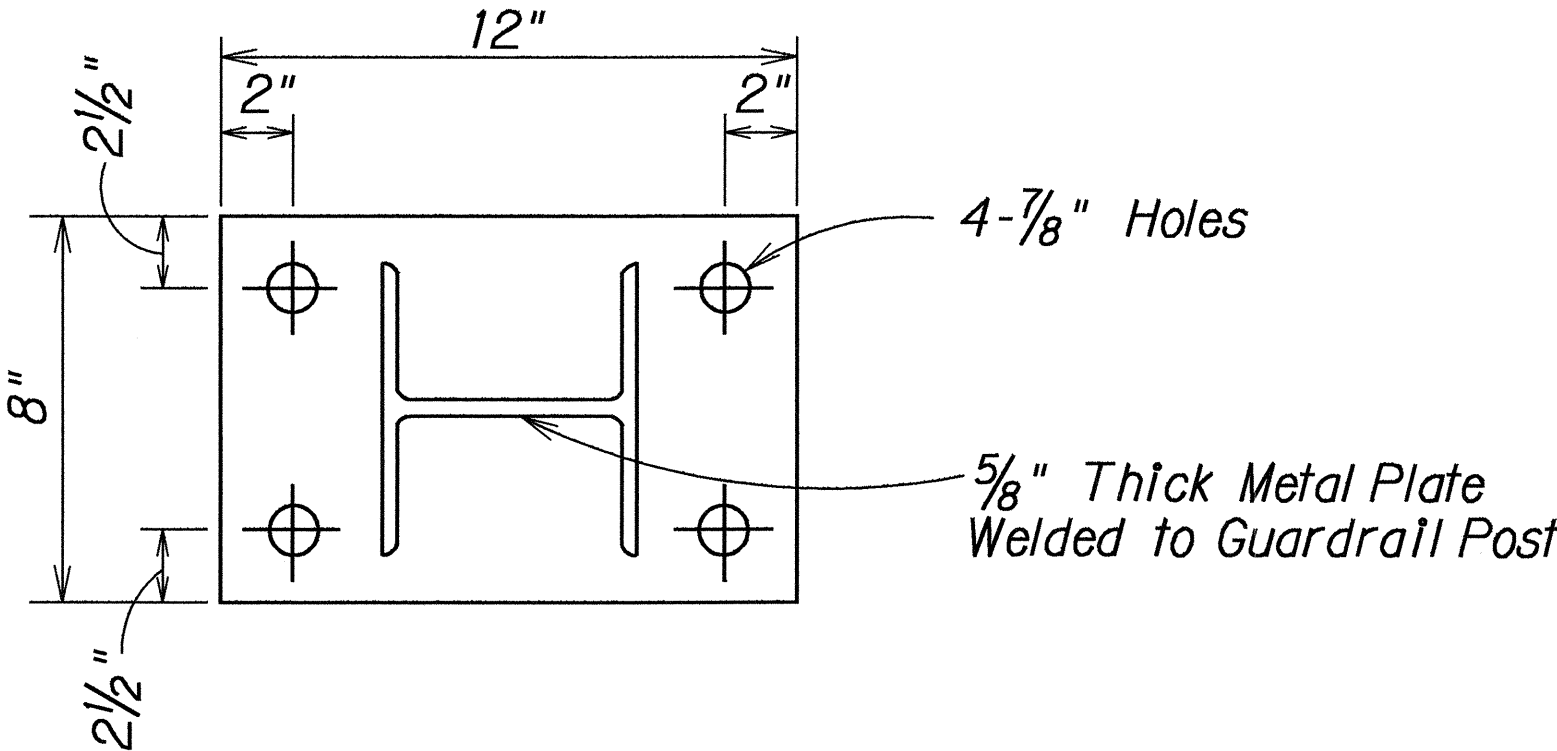
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-037-1(19)	1994	22	30

GUARDRAIL SCHEDULE								
STATION TO STATION	OFFSET	TYPE-3 SINGLE	TYPE 3TG	TYPE 3TS	TERMINAL SECTION			
					T Y P E			
UNIT USED		L.F.	L.F.		"C" EA.	"F" EA.	MODIFIED "G" EA.	BCT EA.
253+75 - 261+90 *	Rt.	490	50	338' -9"	1			
254+25 - 255+25 *	Lt.	75	25			1		
258+00 - 265+00 *	Lt.	670	25		1			
270+25 - 273+50	Lt.	325				1	1	
270+50 - 273+50	Rt.	300			1	1		
275+00 - 276+00	Lt.	100				1	1	
275+60 - 276+40	Rt.	80				1	1	
Subtotal		2,040	100	338' -9"	3	6	3	
Subtotal From Previous Sheet		17,740	100	171' -3"	20	12	33	25
Total		19,780	200	510' -0"	23	18	36	25

* See Plan Sheet Nos. 23-25 for guardrail details at bridges.



GUARDRAIL POST DETAIL ON CONCRETE
Scale: Not to Scale



DETAIL OF GUARDRAIL BASE PLATE
Not to Scale

ORIGINAL PLAN	SURVEY PLOTTED BY DATE
NOTES FOR CONSTRUCTION	DRAWN BY DATE
QUANTITIES BY DATE	DESIGNED BY DATE
CHECKED BY DATE	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL SCHEDULE

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

Date: July, 1993
SHEET No. 2 OF 2 SHEETS