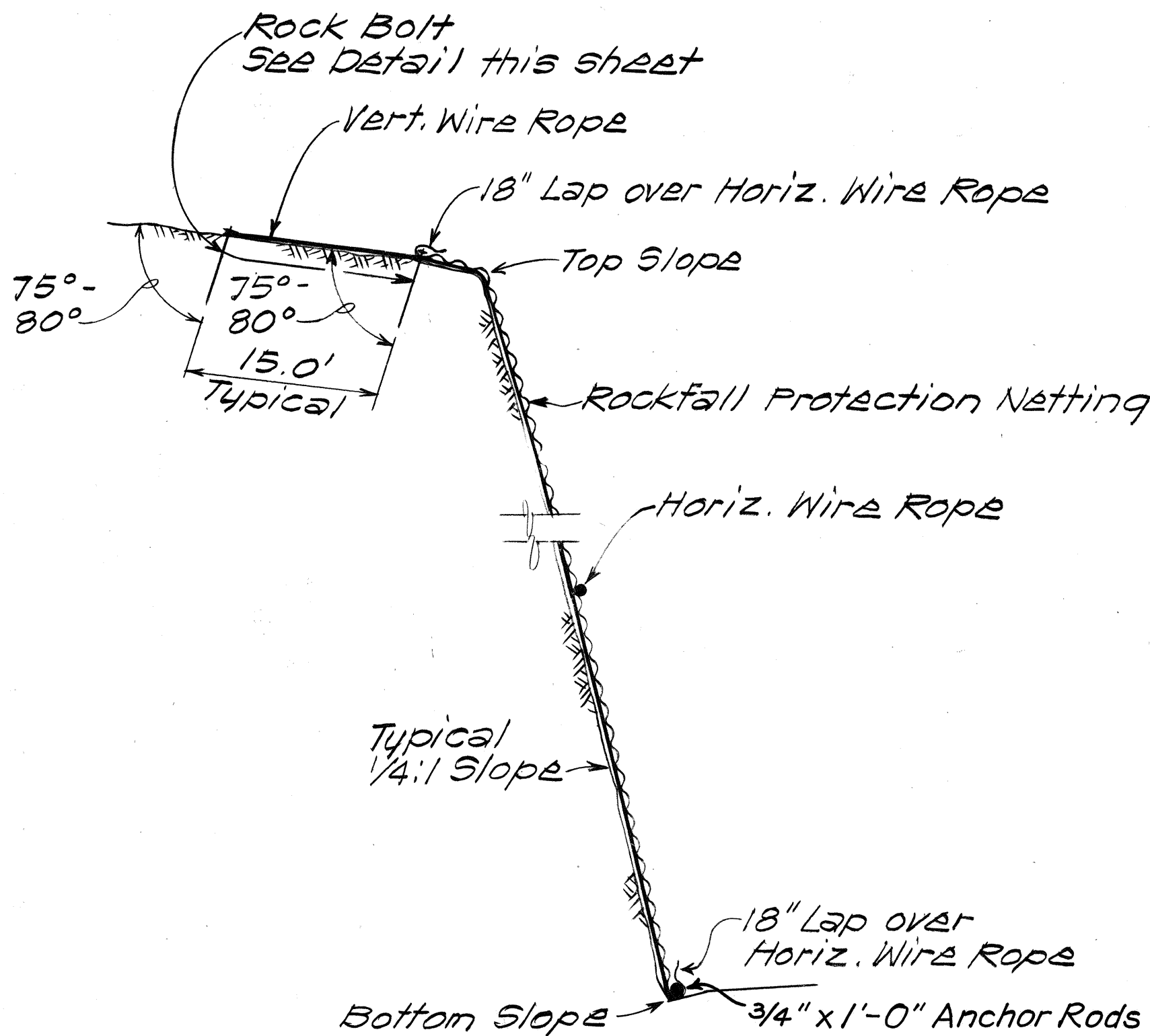


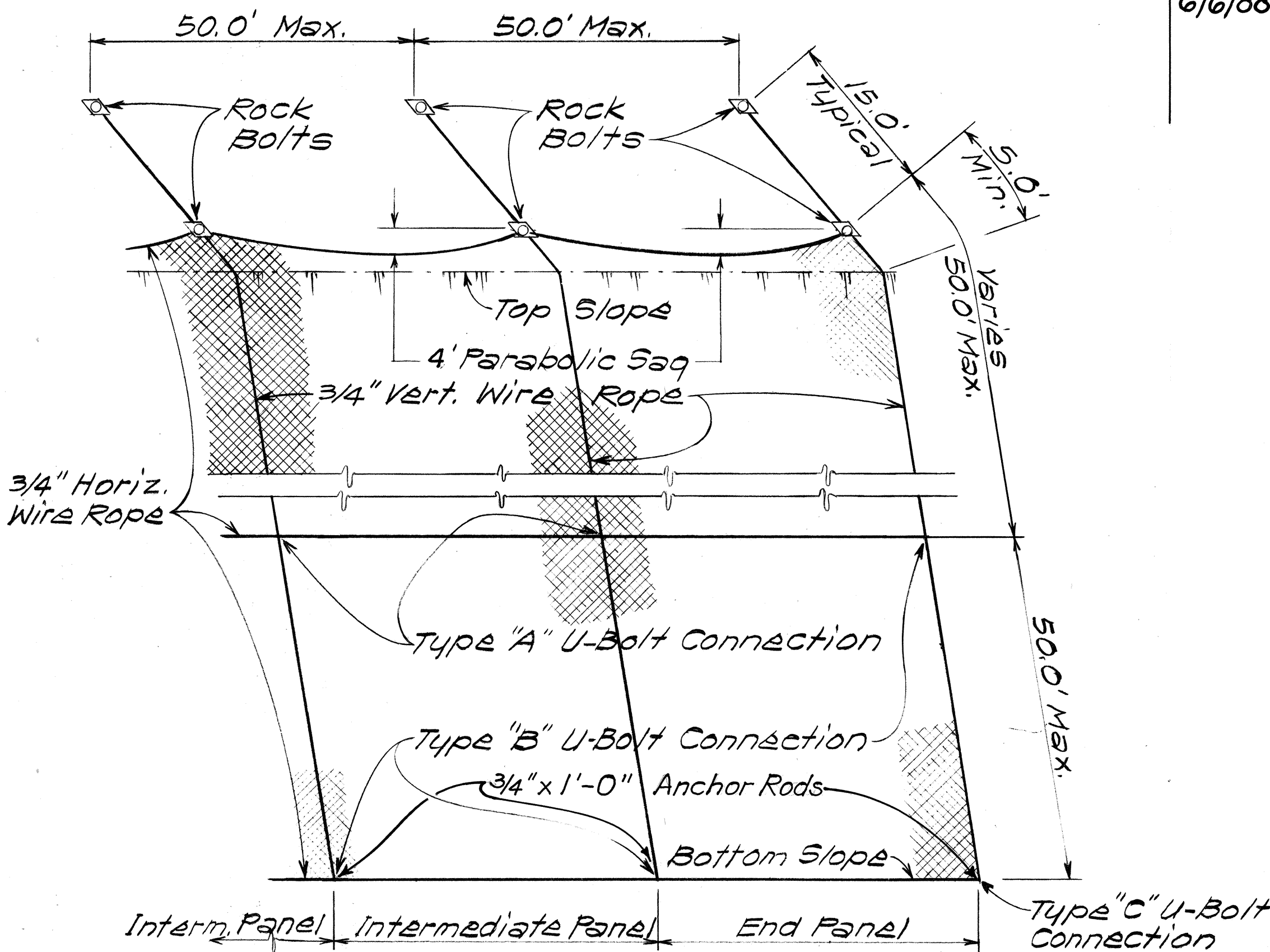
DATE	REVISION				
6/6/88	Revised Rockfall Protection Schedule.				
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	30C-02-88	1988	2	10



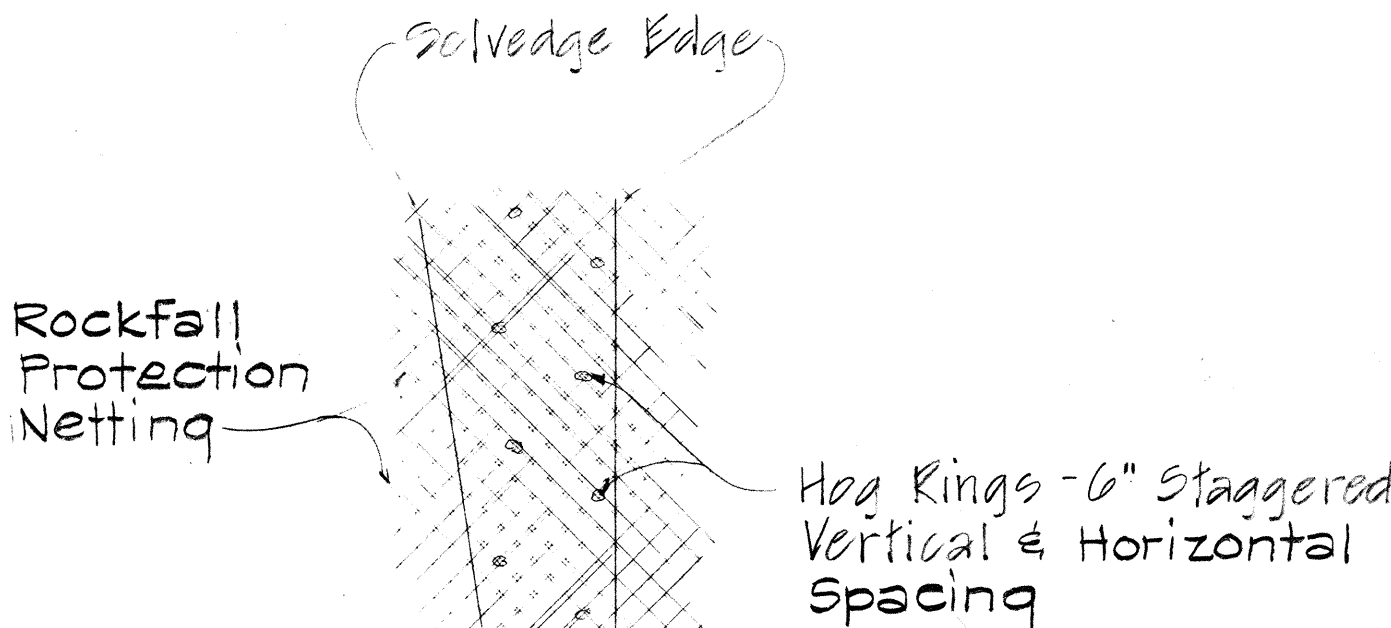
TYPICAL SECTION
ROCKFALL PROTECTION
NETTING

ROCKFALL PROTECTION SCHEDULE				
LIMITS	ESTIMATED QUANTITIES			
# STA. TO # STA.	ROCKFALL PROTECTION NETTING	ROCK BOLT	WIRE ROPE	CABLE ANCHOR
	Sq. Yd.	Each	Lin. Ft.	Each
258+25± To 261+75±	3,107.2		1,773	42
258+50± To 262+14±	2,050	18	1,270	43
265+40± To 271+20±	3,194.2	24	1,842.5	41
265+45± To 271+00±	3,370	26	2,100	63
277+75± To 279+75±	3,037.1	12	1,817	26
277+00± To 280+00±	2,130	14	1,100	33
283+65± To 286+50±	4,085.5	16	2,220	29
283+20± To 286+60±	3,200	20	2,300	48
QUANTITY TOTAL	13,424	70	7,661.5	138
	10,750	78	6,770	187

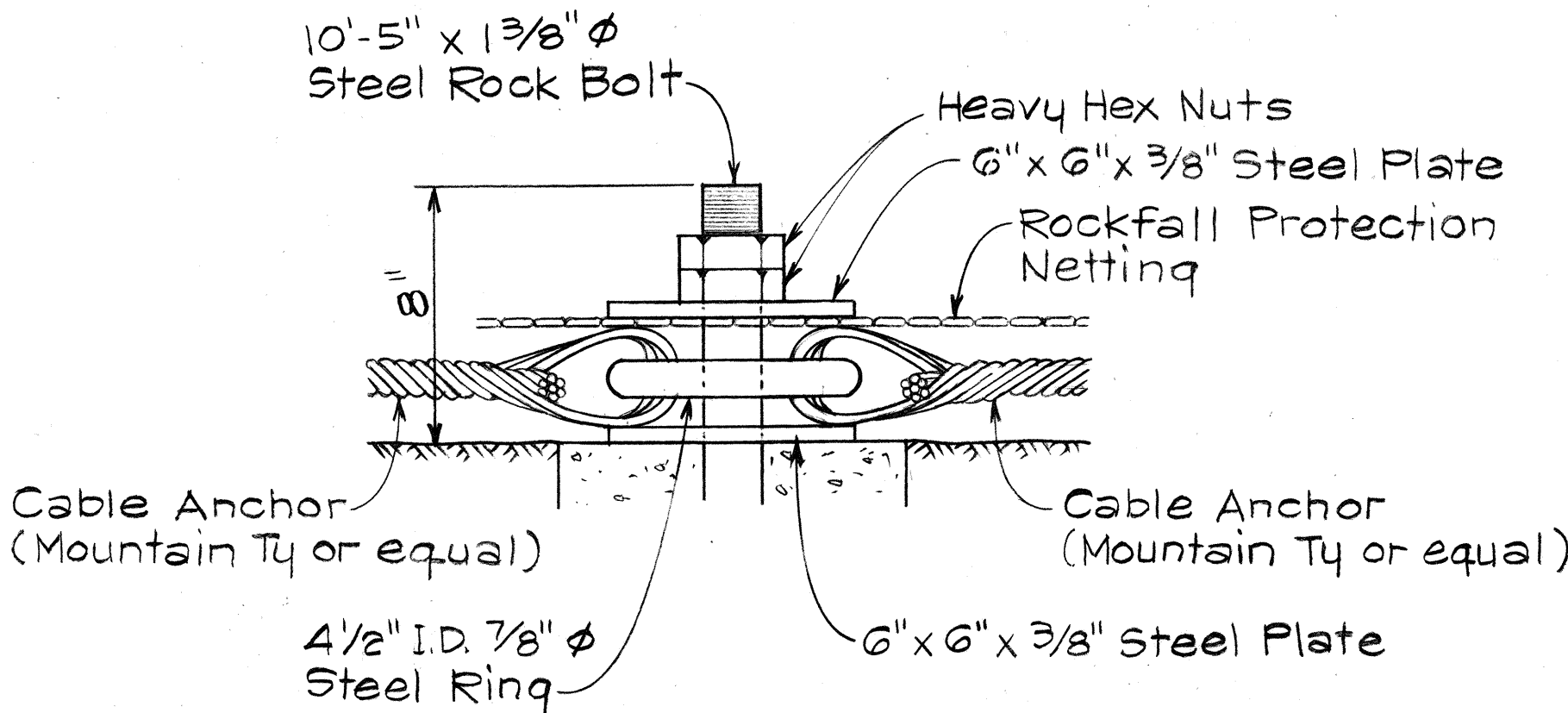
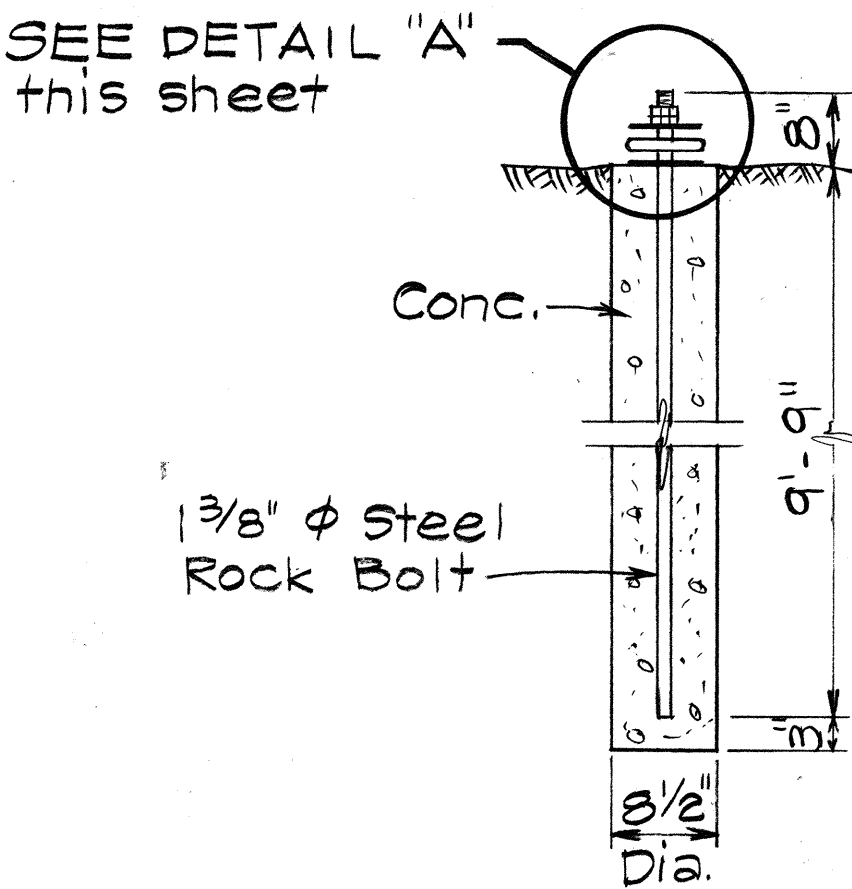
- NOTES
- Steel rock bolts w/double heavy hex nuts shall have a minimum yield strength of 55,000 psi and shall be galvanized.
 - Steel plates and rings shall be ASTM A572 Steel and shall be galvanized.
 - Concrete shall have a 28 day compressive strength of $f'_c = 5000 \text{ psi}$.



FRONT VIEW
ROCKFALL PROTECTION NETTING
NOTE: For U-Bolt Connection Details see
Plan Sht. No. 3

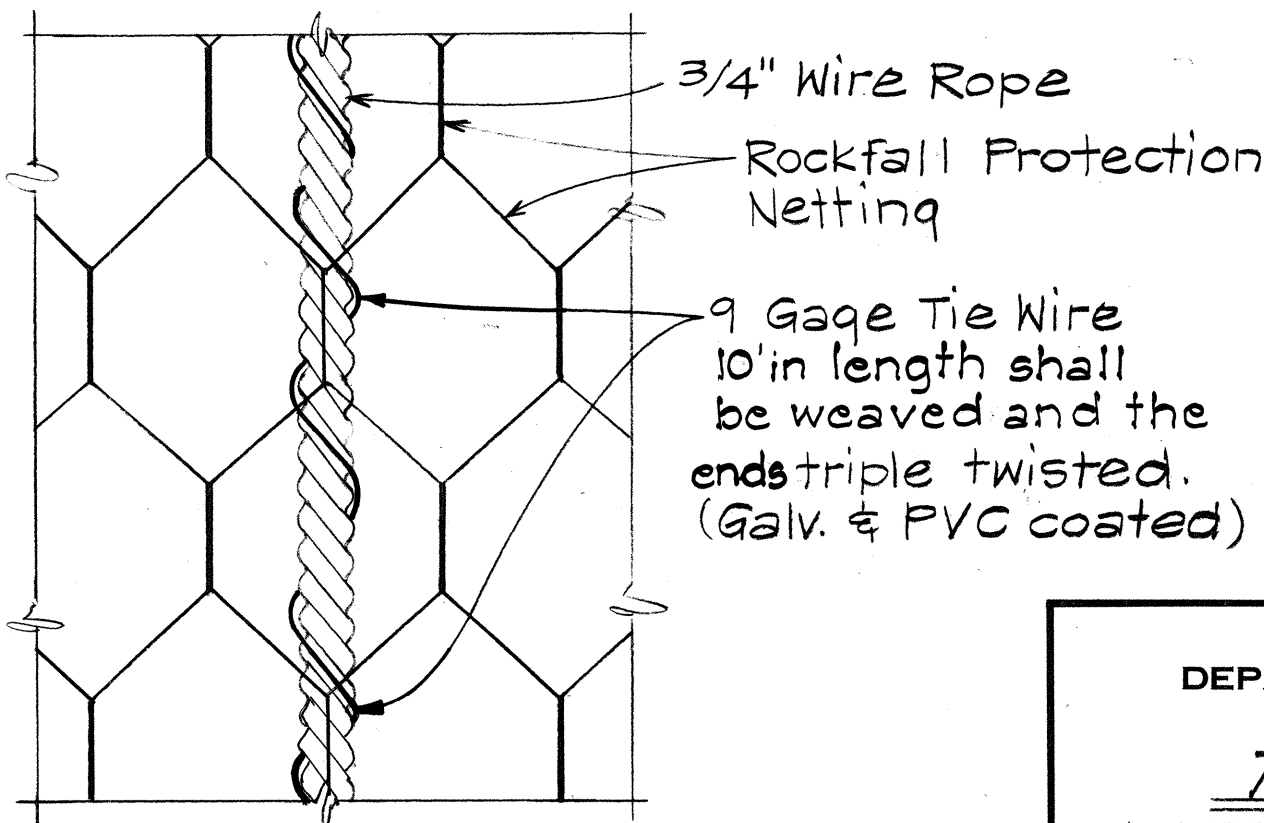


ROCKFALL PROTECTION NETTING
OVERLAPPING DETAIL



NOTE: Heavy duty type Cable Thimbles for Cable Anchors not shown.

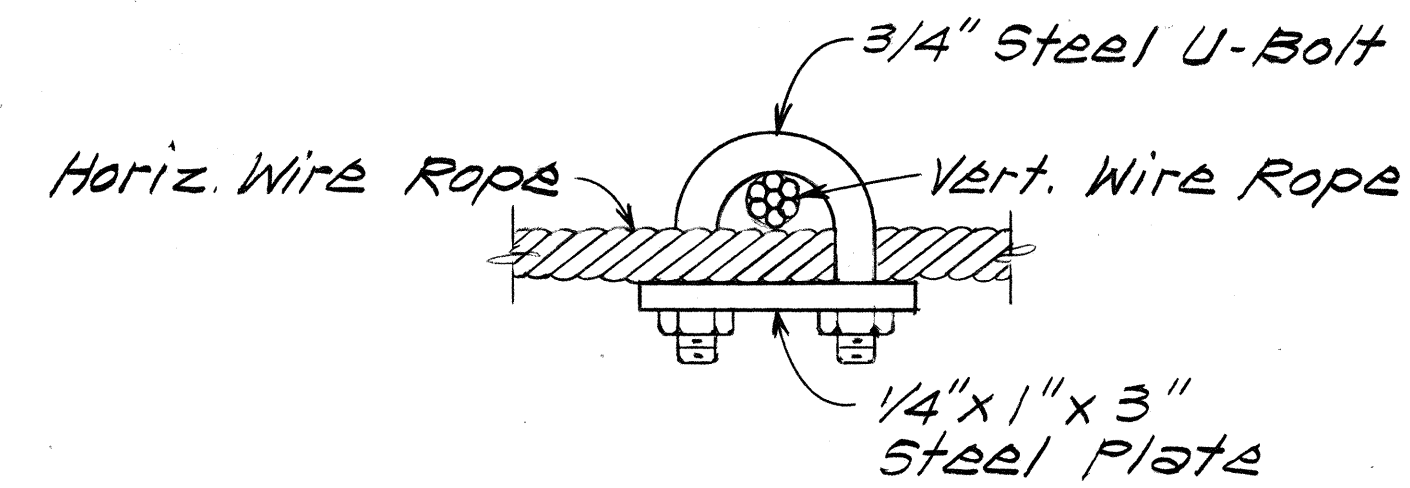
DETAIL "A"
ROCK BOLT-
ROCKFALL PROTECTION NETTING
CONNECTION DETAIL



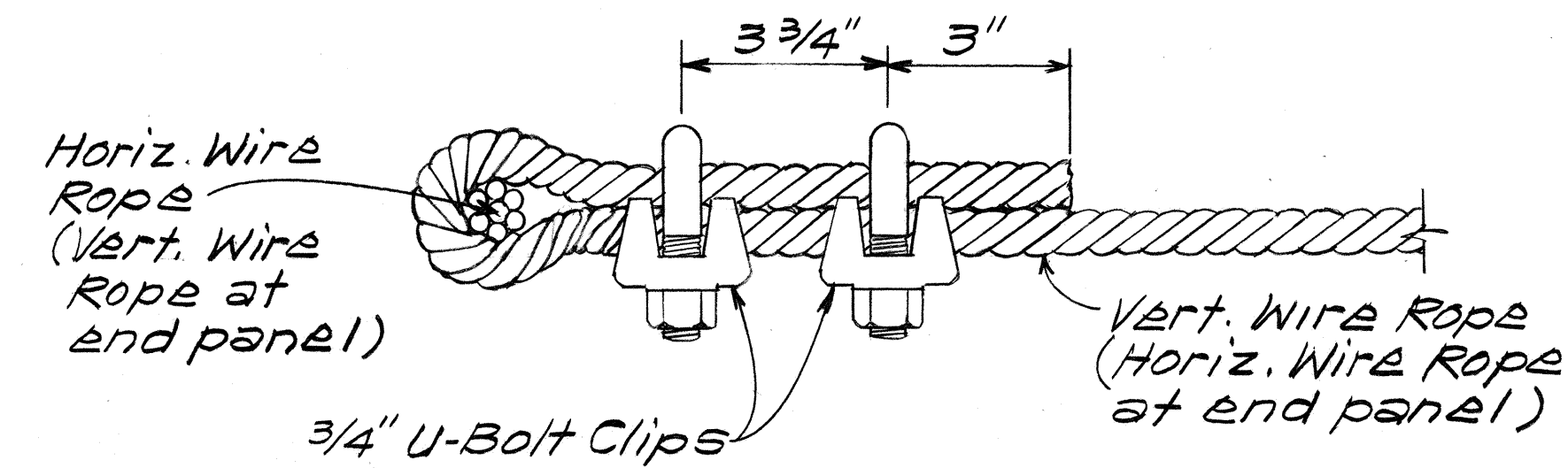
TYING ROCKFALL PROTECTION
NETTING TO WIRE ROPE DETAIL

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
TYPICAL SECTION DETAILS AND SCHEDULE	
HONOLULU HIGHWAY Rockfall Protection along Pali Section, Ph. II	
Project No. 30C-02-88	
Not to Scale Date: Apr, 1988	
SHEET No. 1 OF 2 SHEETS	

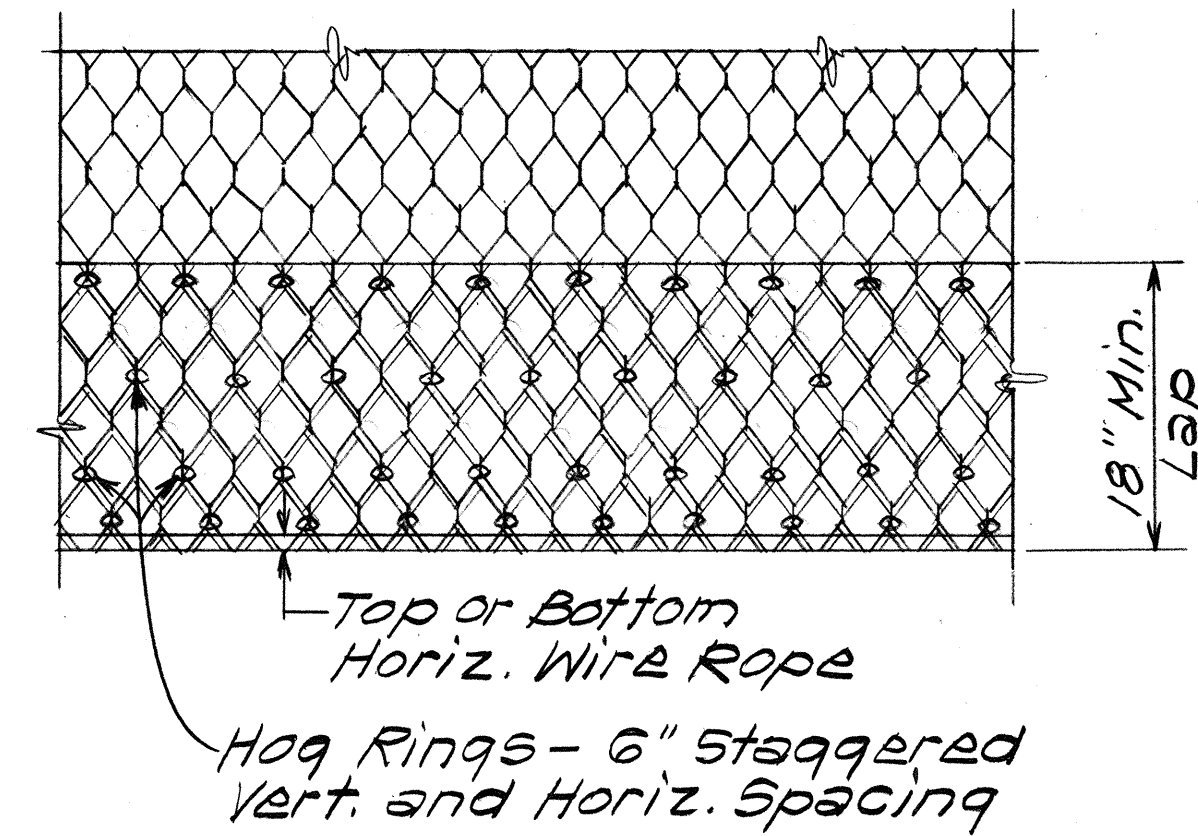
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	30C-02-88	1988	3	10



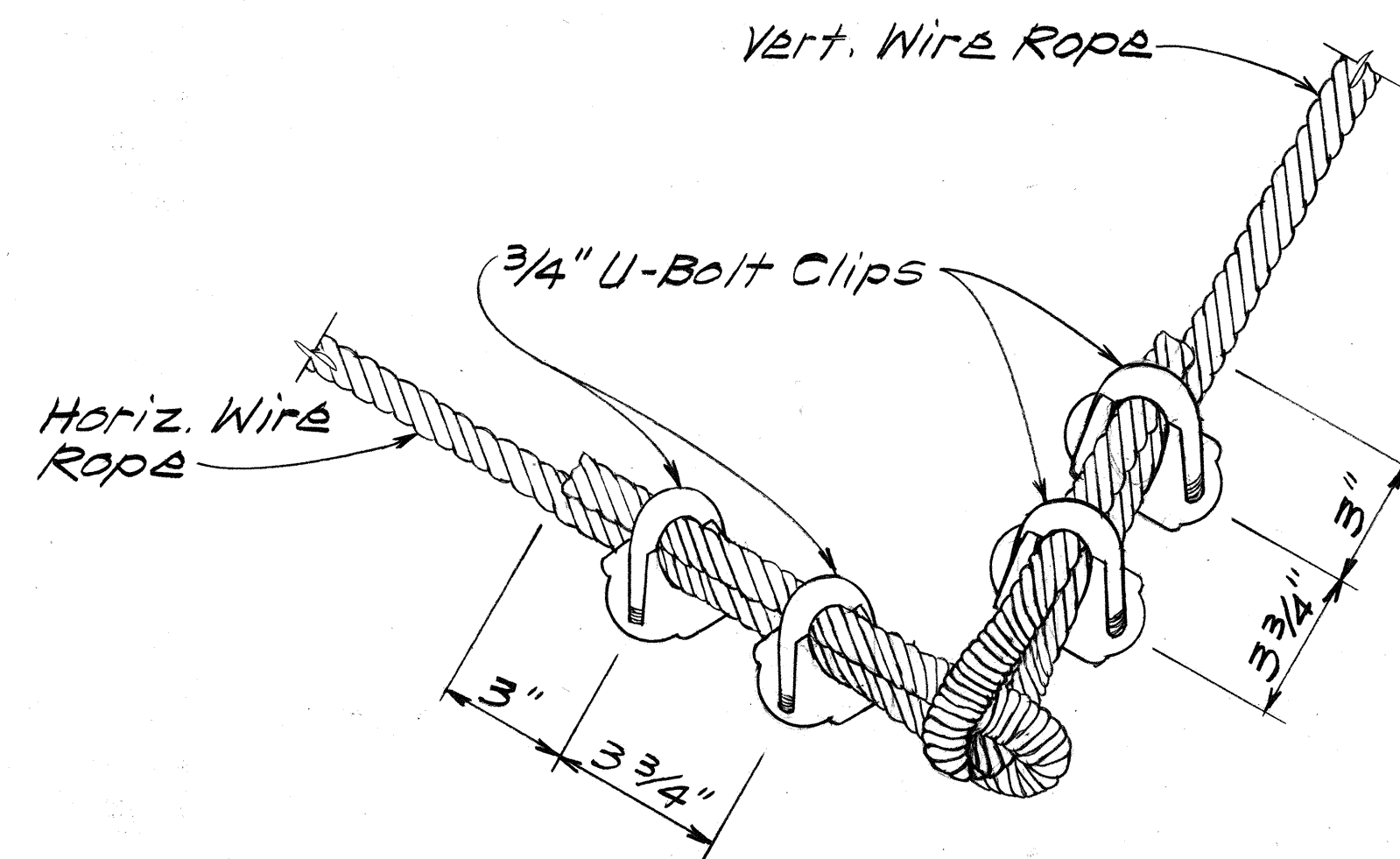
TYPE "A" U-BOLT CONNECTION



TYPE "B" U-BOLT CONNECTION



OVERLAPPING DETAIL
AT TOP OR BOTTOM
HORIZ. WIRE ROPE



TYPE "C" U-BOLT CONNECTION

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>DETAILS</u>	
<u>HONOAPIILANI HIGHWAY</u> <u>Rockfall Protection along Fali Section, Ph II</u> <u>Project No. 30C-02-88</u>	
<u>Not to Scale</u>	<u>Date: Apr., 1988</u>
SHEET NO. 2 OF 2 SHEETS	