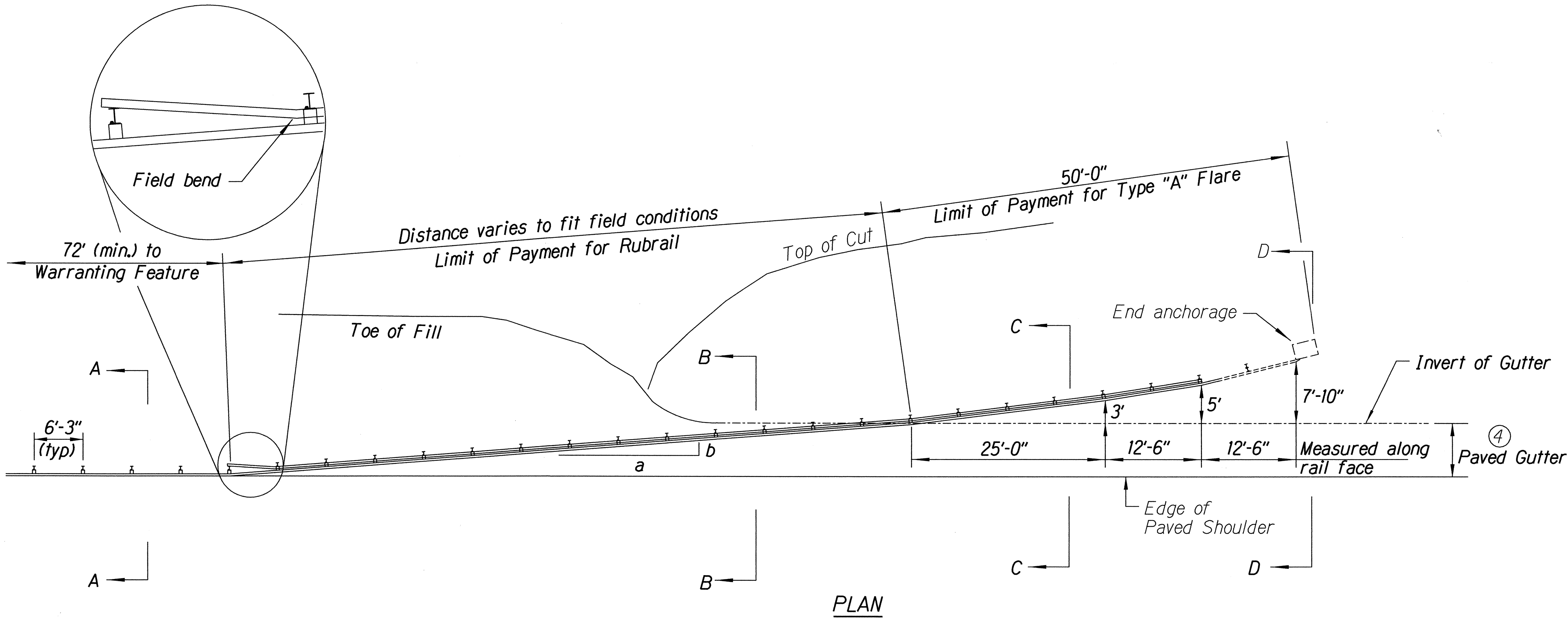


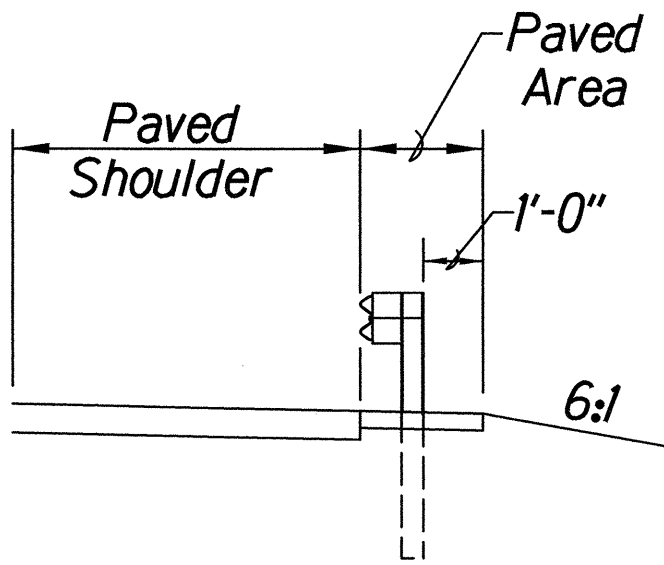
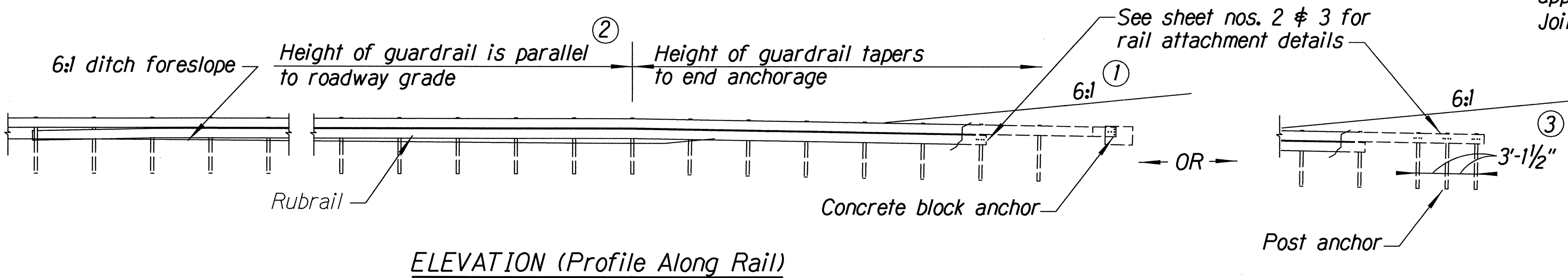
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(41)	1999	34	89

General Notes

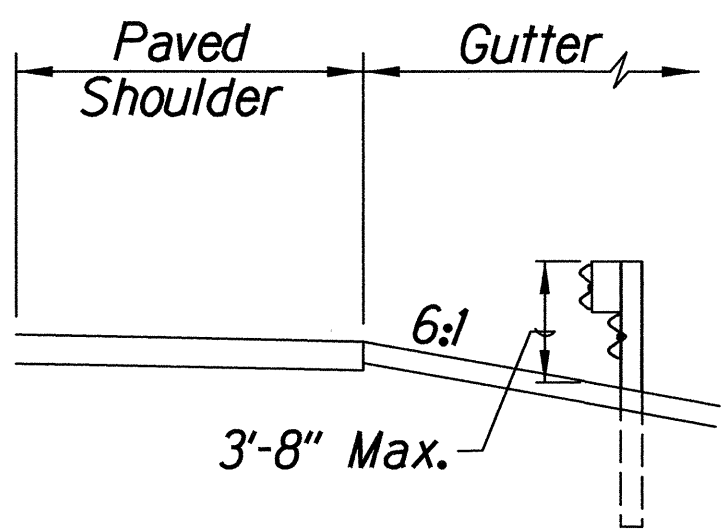
1. A 6:1 or flatter slope is desirable. However, a steeper or flatter existing slope may be used.
2. Height of guardrail may be tapered down in elevation to maintain 3'-8" maximum height.
3. All posts are 8'-0" in length from where the guardrail flares away from the shoulder back to the post anchor. Posts for the post anchor are 6'-0" long.
4. Variable Paved Gutter offsets may be used to fit field conditions.
5. The Guardrail Posts shall be located away from the gutter/swale invert.
6. All fasteners, posts, blocks and rail elements shall conform to the latest edition and amendments of "A Guide to Standardized Highway Barrier Rail Hardware," a report prepared and approved by the AASHTO-AGCARTBA Joint Cooperative Committee.



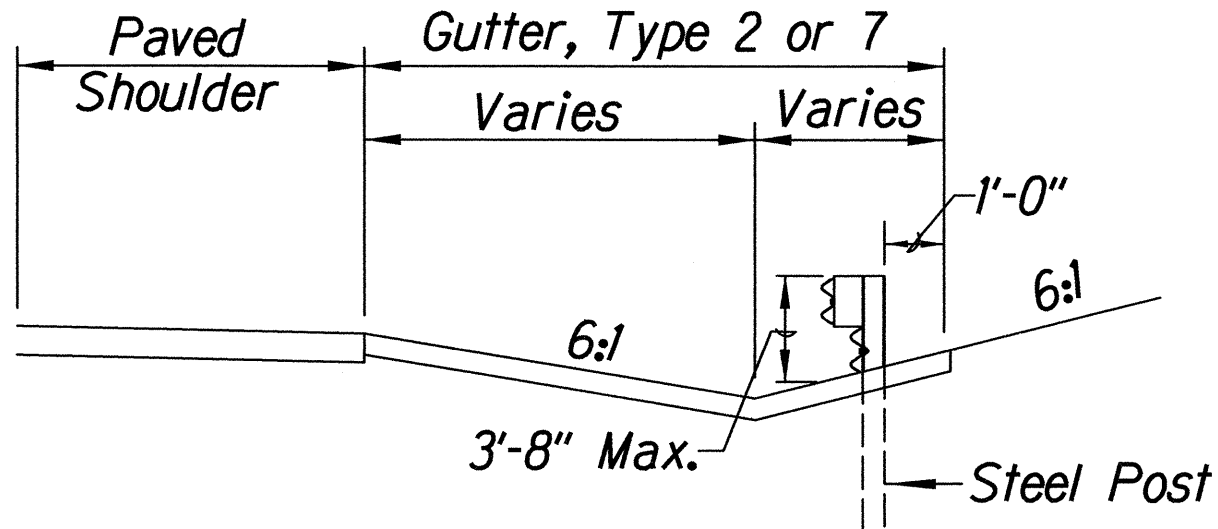
Design speed mph	a:b
68	15:1
62	13:1
56	12:1
50	11:1
43	10:1
37	9:1
31	7:1



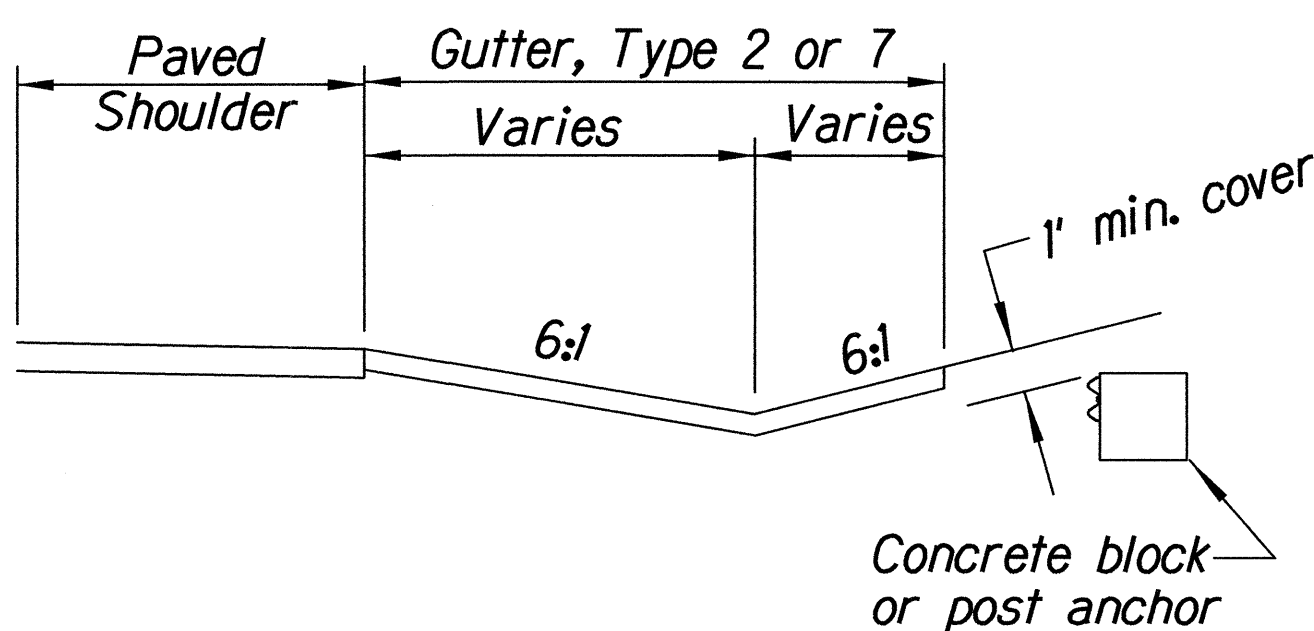
Section A-A



Section B-B
(With Rubrail)

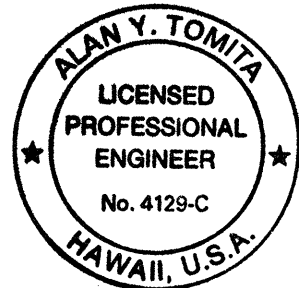


Section C-C
(With Rubrail)



Concrete block
or post anchor

BACKSLOPE ANCHOR TERMINAL (WITH 6:1 PAVED GUTTER AND TYPE "A" FLARE)



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Alan Y. Tomita

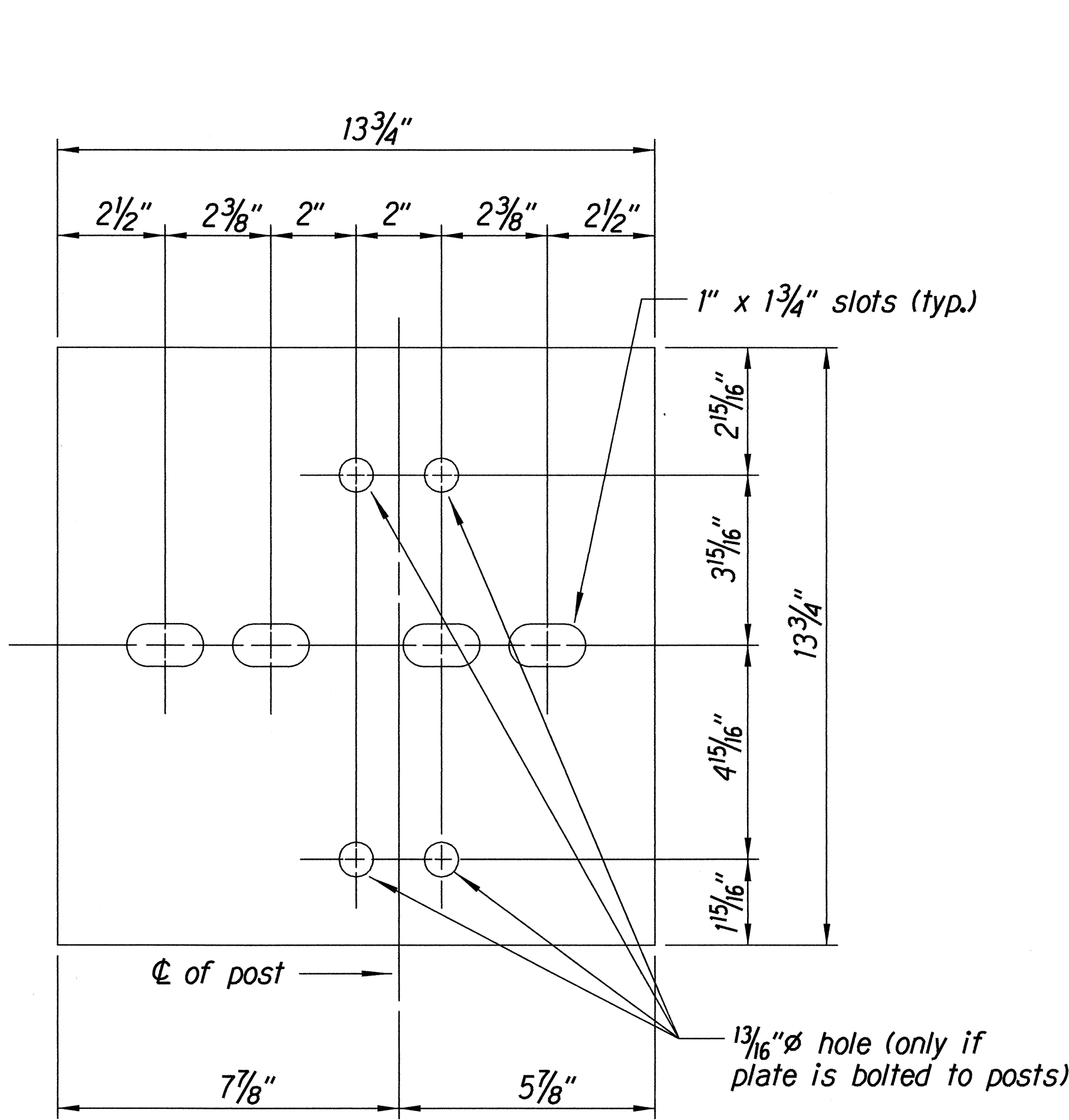
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPE "A" FLARE

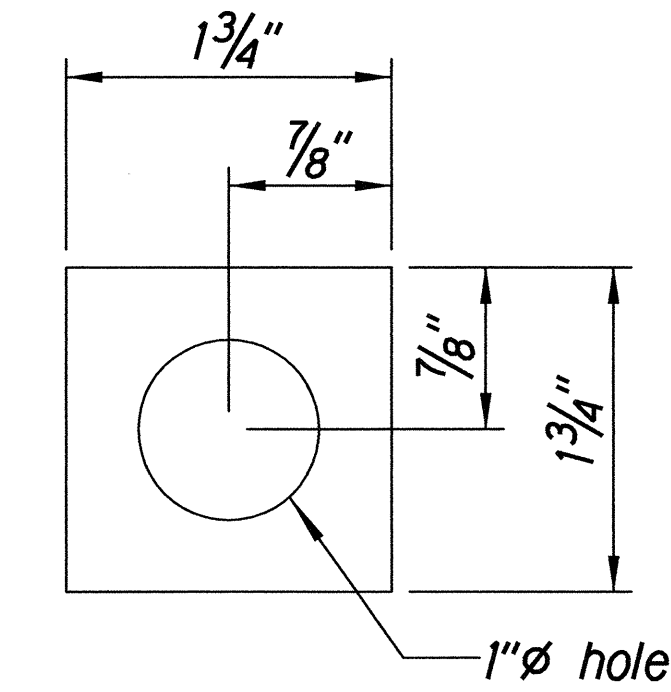
KAMEHAMEHA HIGHWAY RESURFACING
Kaneohe Bay Drive to Kahiko Street
F. A. Project No. NH-083-1(41)

Scale: NTS Date: May, 1999

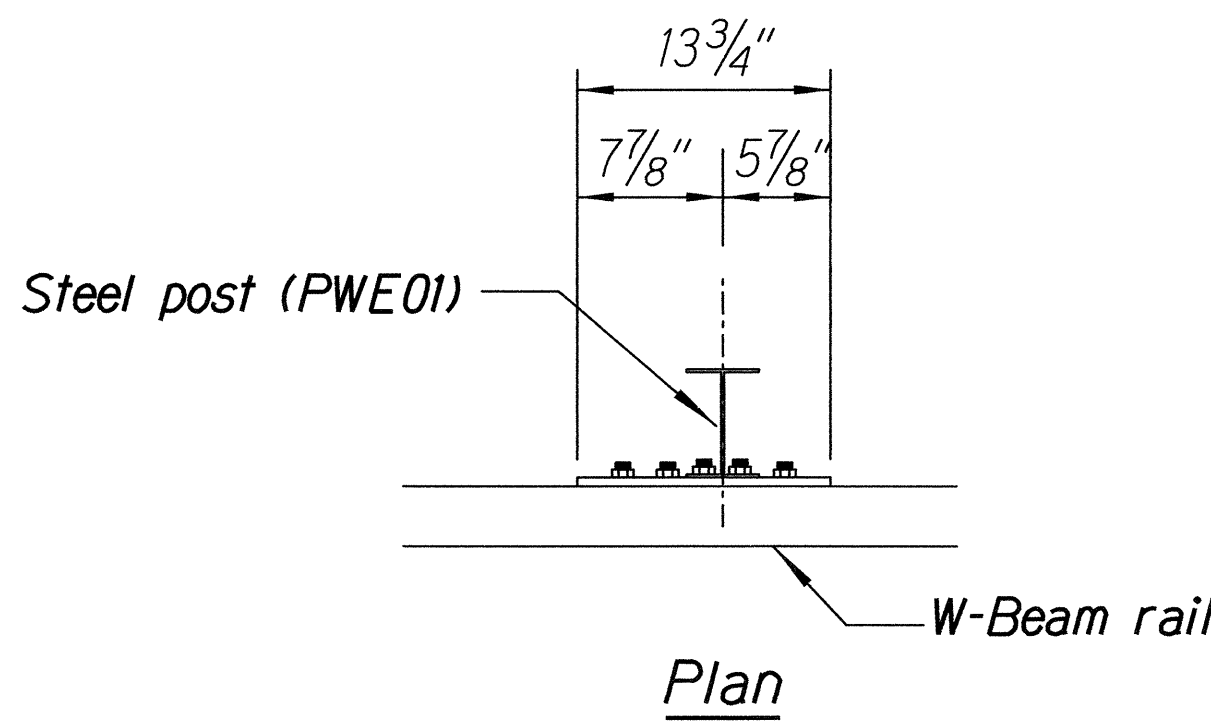
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(41)	1999	35	89



Steel Plate - 1/2"
(Hot-dip Zinc Coated Galvanized
Welded or Bolted to Post)

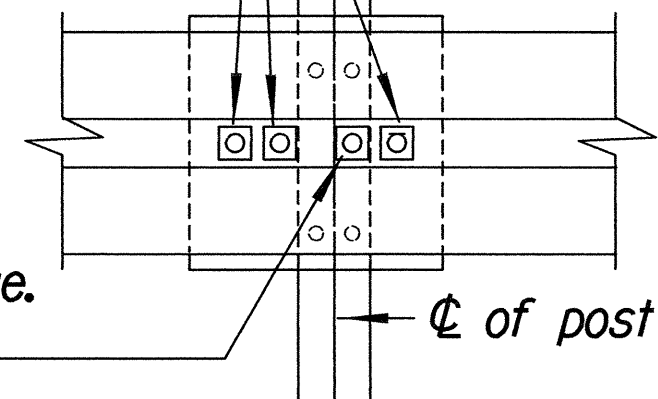


Square Washer
(3/16" Thick - Hot-dip
Zinc Coated Galvanized)

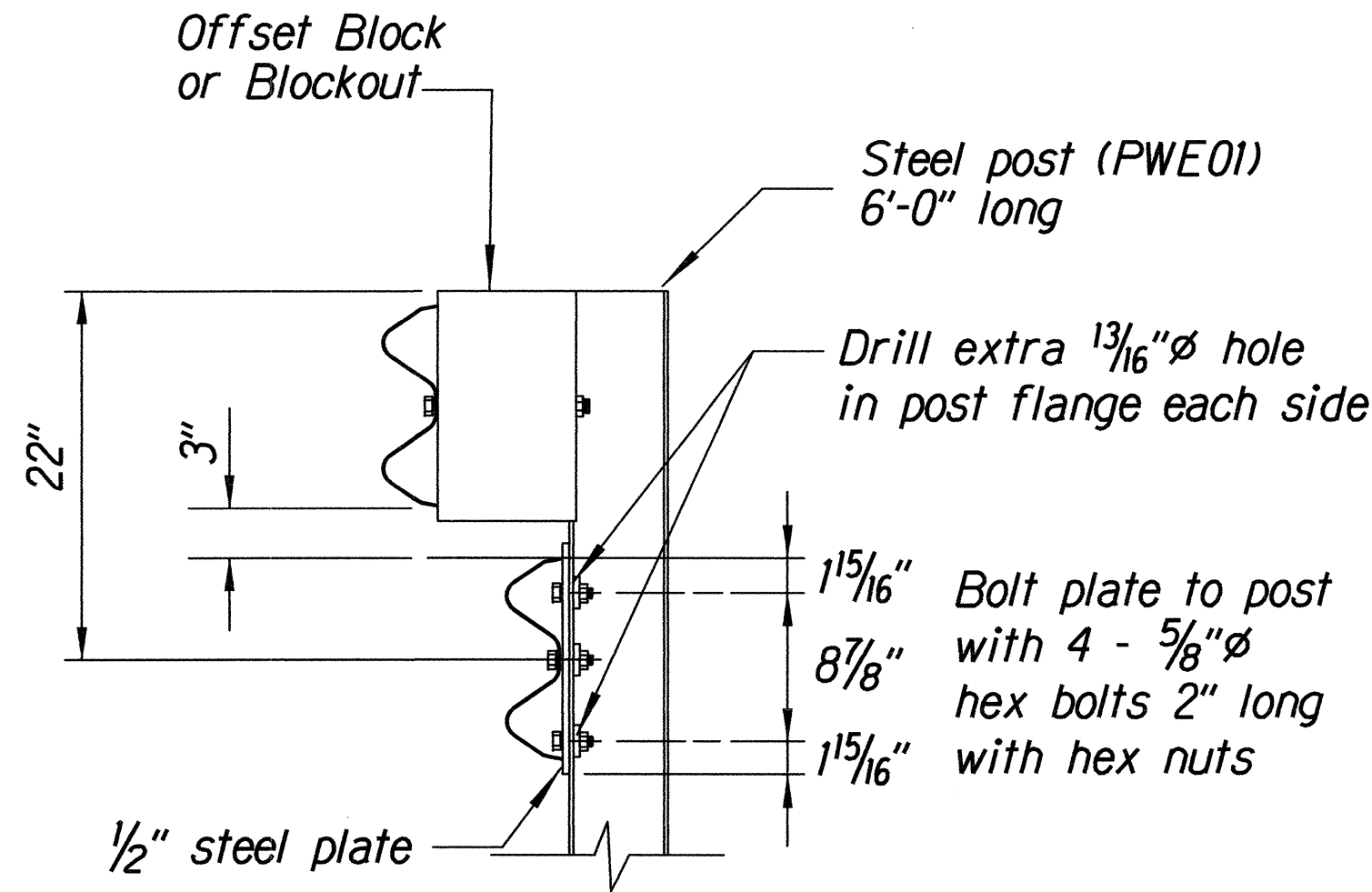


3 - 7/8" holes to be field drilled in rail and attached to steel plate with 7/8" hex bolts 1 5/16" long with square washer

1" holes to be field drilled in rail and through post flange. Attach to steel plate with 7/8" hex bolts 2" long with square washer



Front View

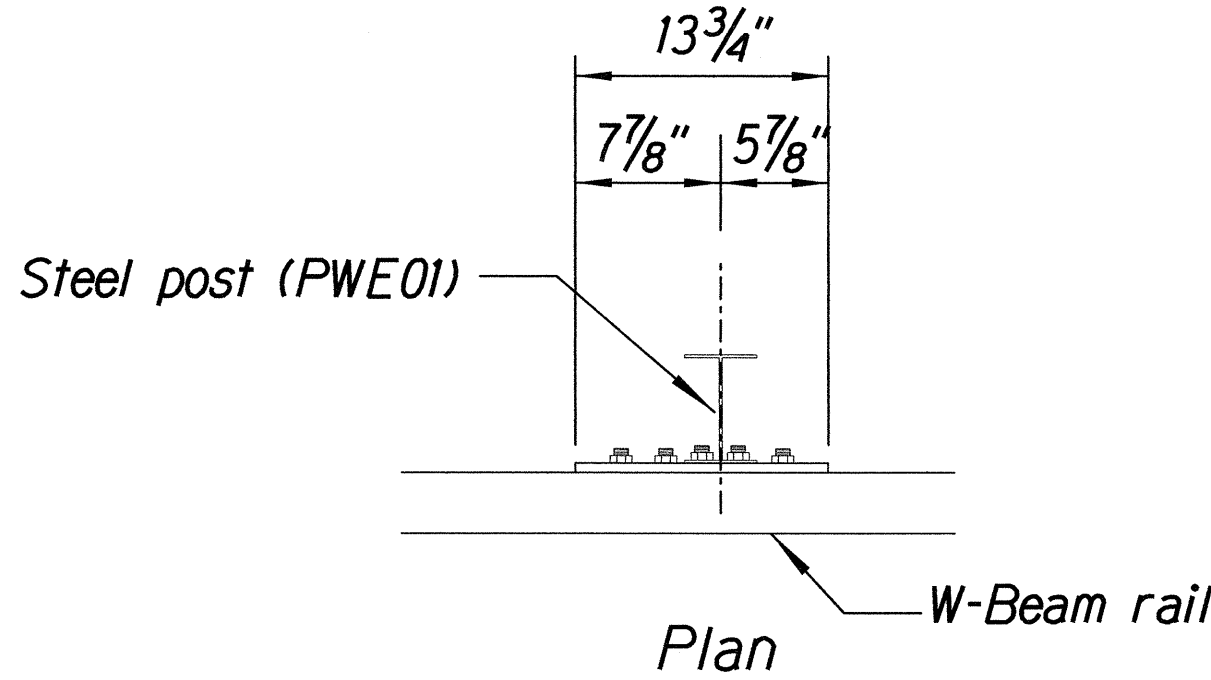


Elevation

RUBRAIL ANCHOR DETAILS

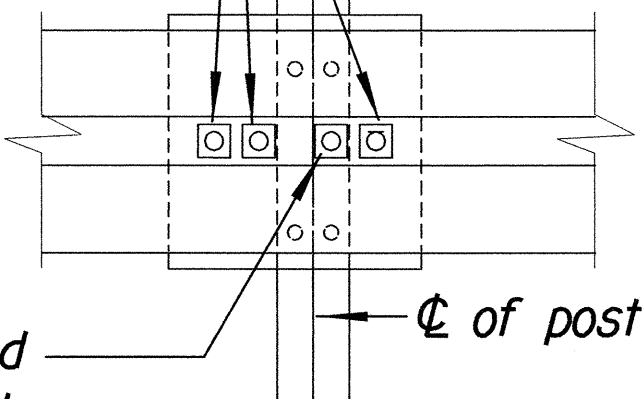
Note:

All fasteners, posts, blocks and rail elements shall conform to the latest edition and amendments of "A Guide to Standardized Highway Barrier Rail Hardware," a report prepared and approved by the AASHTO-AGCARTBA Joint Cooperative Committee.

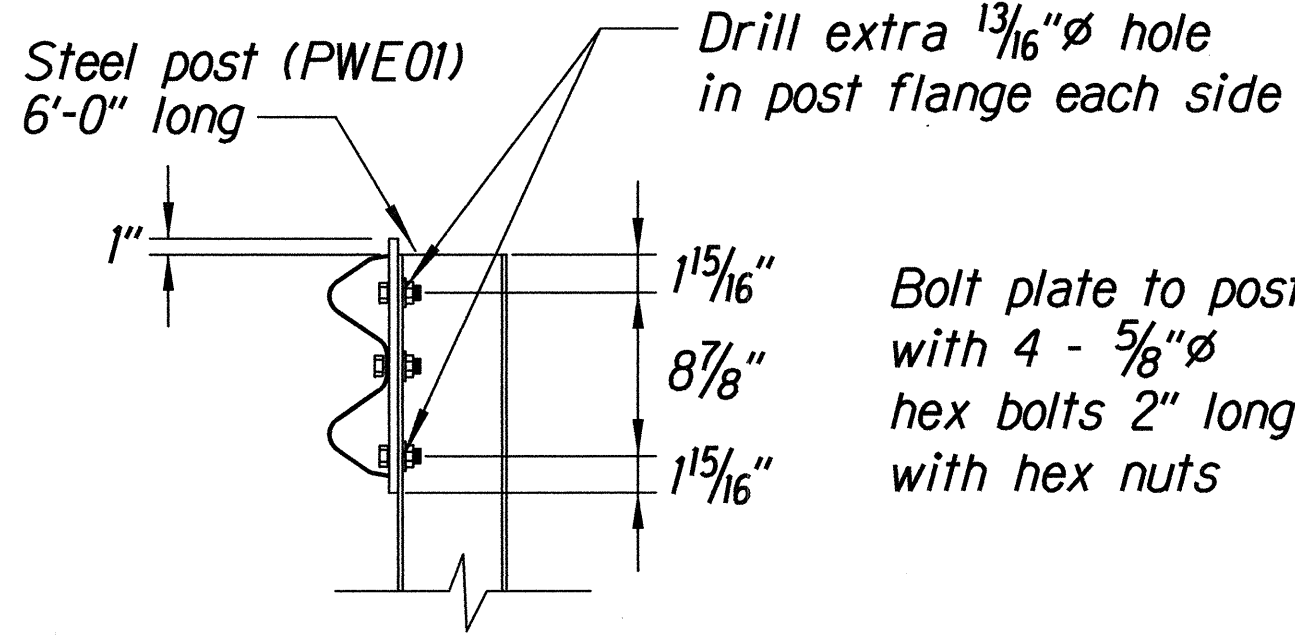


3 - 7/8" holes to be field drilled in rail and attached to steel plate with 7/8" hex bolts 1 5/16" long with square washer

1" holes to be field drilled in rail and through post flange. Attach to steel plate with 7/8" hex bolts 2" long with square washer



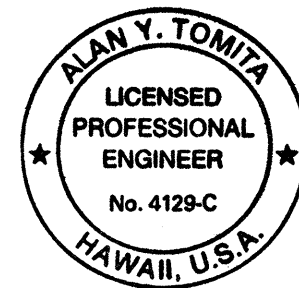
Front View



Elevation

POST ANCHOR DETAILS

BACKSLOPE ANCHOR TERMINAL END ANCHORAGE DETAILS TYPE "A" FLARE)



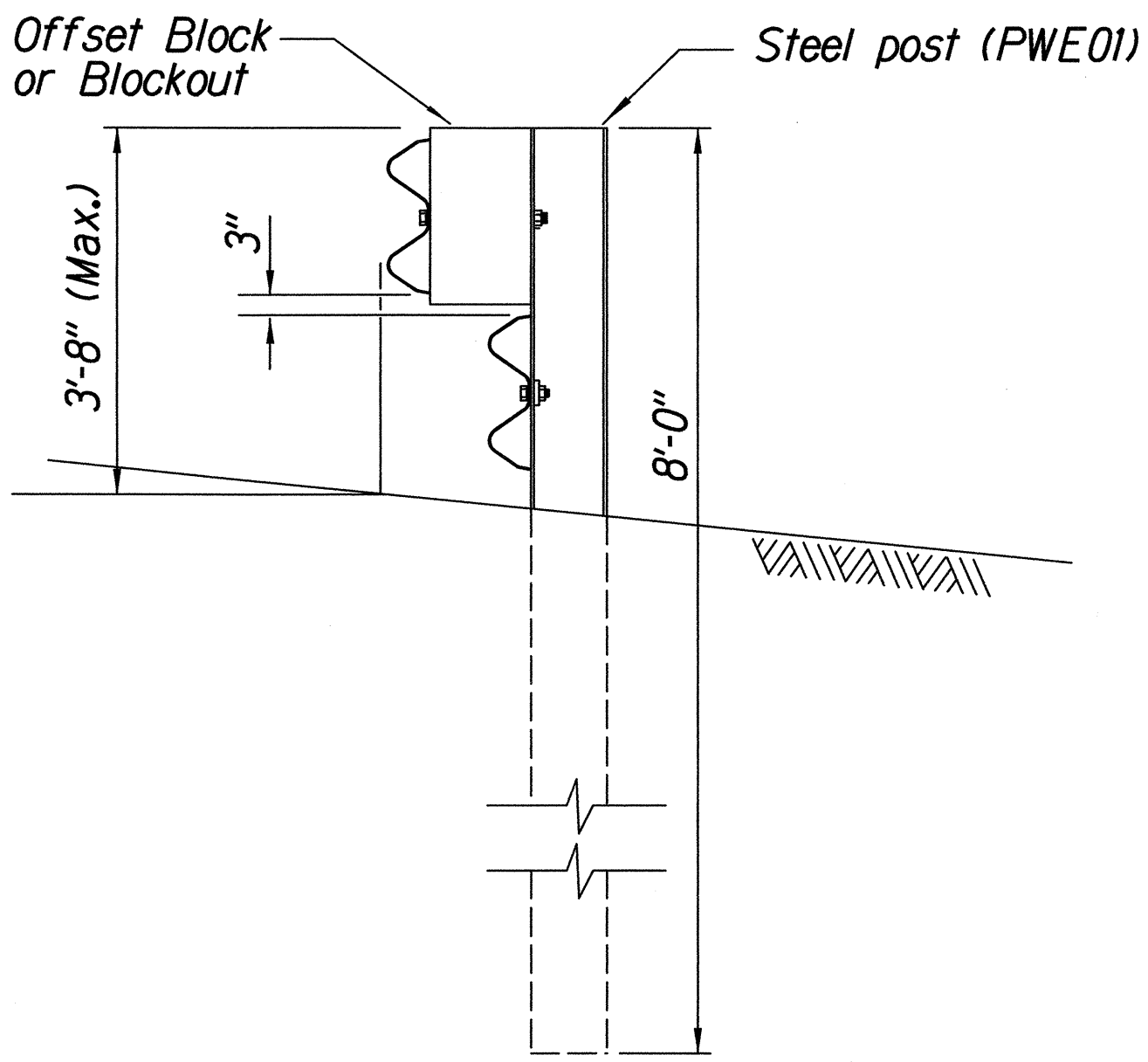
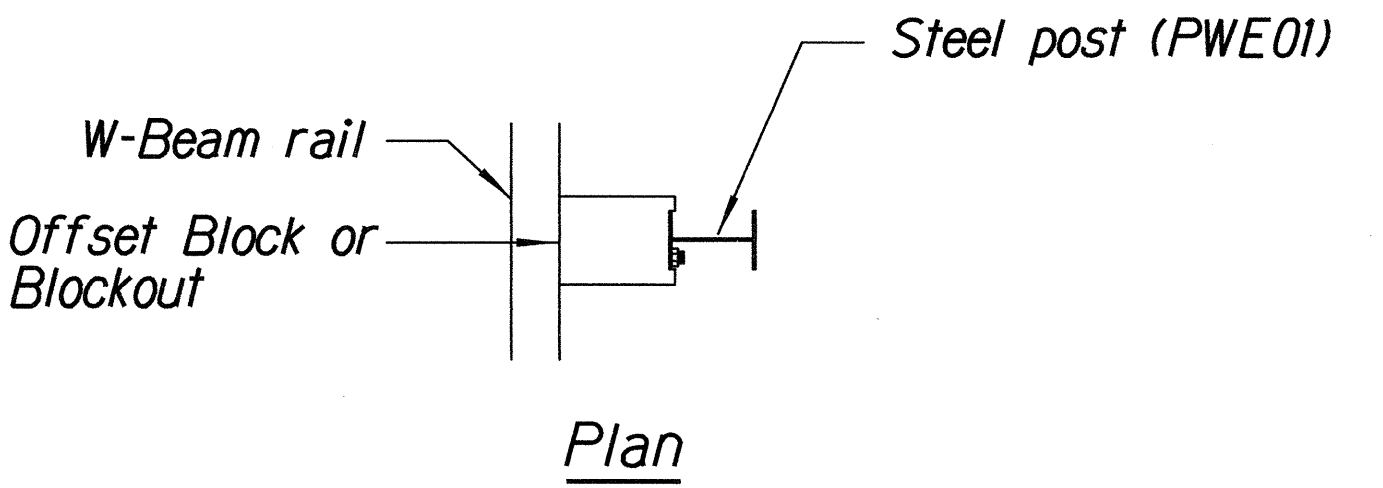
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Alan Y. Tomita

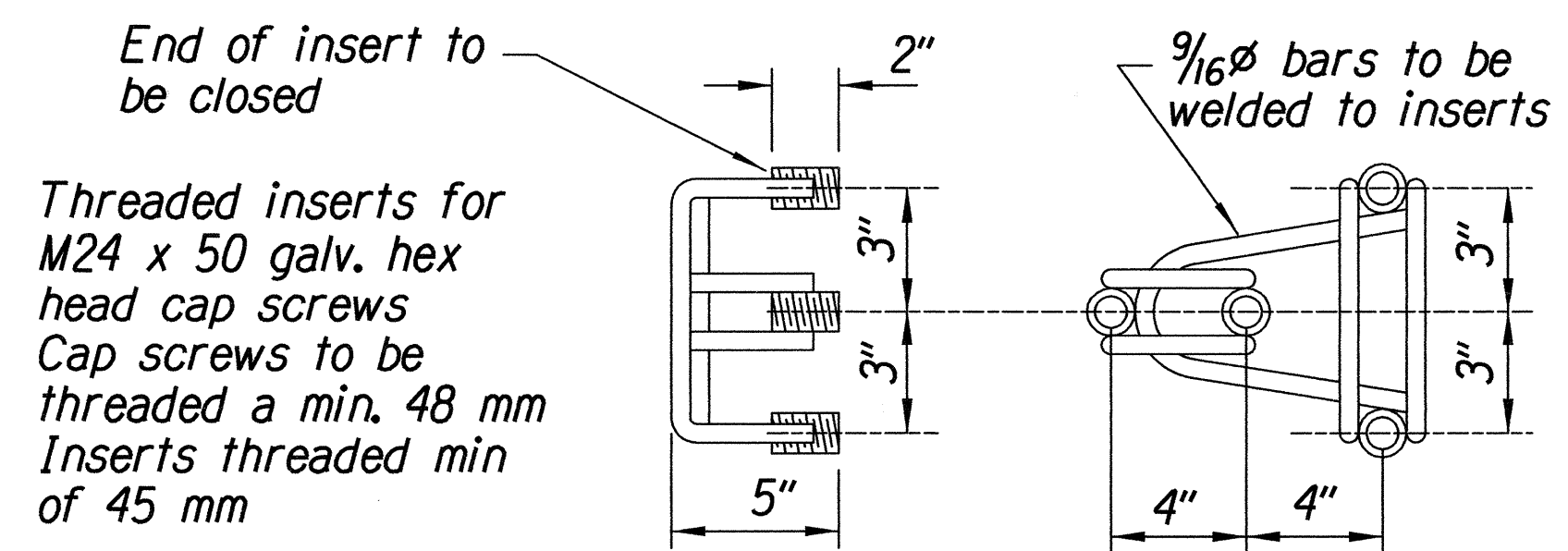
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPE "A" FLARE
KAMEHAMEHA HIGHWAY RESURFACING
Kaneohe Bay Drive to Kahiko Street
F. A. Project No. NH-083-1(41)
Scale: NTS
SHEET No. 2 OF 3 SHEETS

Date: May, 1999

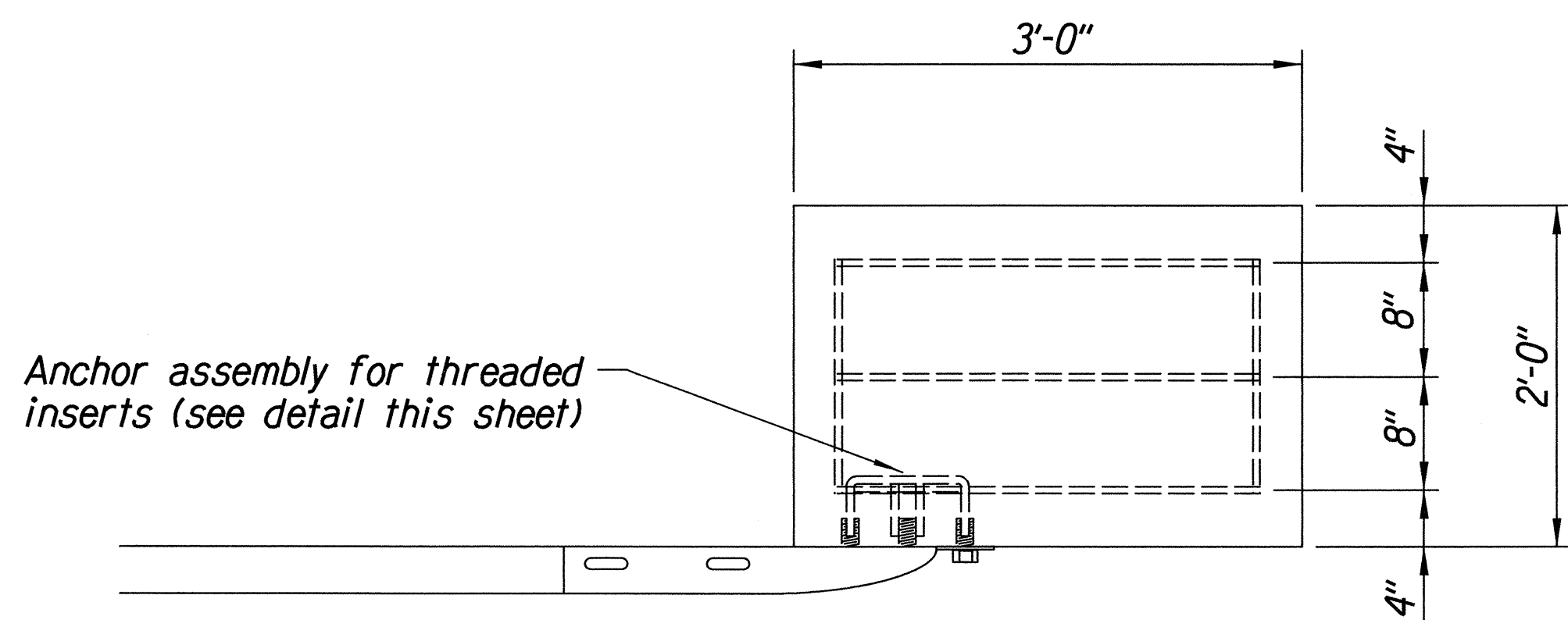
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(41)	1999	36	89



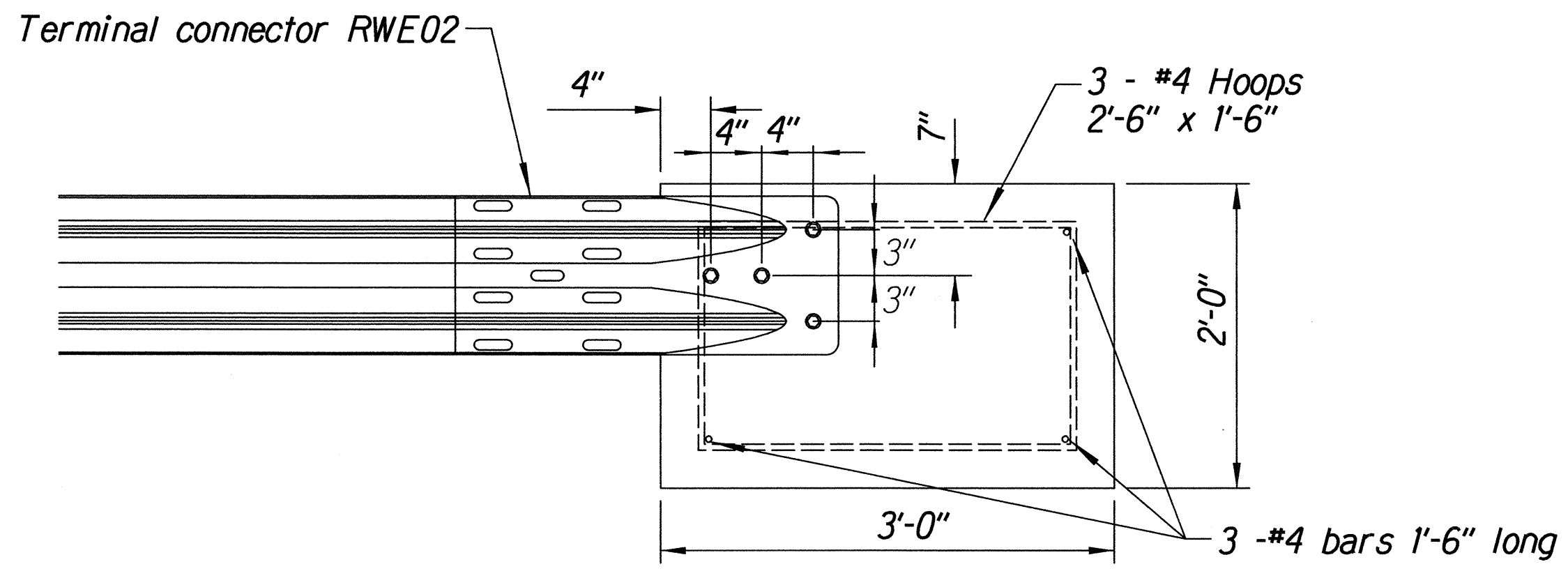
STEEL POST GUARDRAIL
WITH RUBRAIL



ANCHOR ASSEMBLY
CONCRETE BLOCK ANCHOR



Plan



Elevation

CONCRETE BLOCK ANCHOR
(2' X 2' X 3')

BACKSLOPE ANCHOR TERMINAL END ANCHORAGE DETAILS
TYPE "A" FLARE)

Note:
All fasteners, posts, blocks and rail elements shall conform to the latest edition and amendments of "A Guide to Standardized Highway Barrier Rail Hardware," a report prepared and approved by the AASHTO-AGCARTBA Joint Cooperative Committee.

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

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Alan Y. Tomita

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPE "A" FLARE

KAMEHAMEHA HIGHWAY RESURFACING
Kaneohe Bay Drive to Kahiko Street
F. A. Project No. NH-083-1(41)

Scale: NTS Date: May, 1999

SHEET No. 3 OF 3 SHEETS