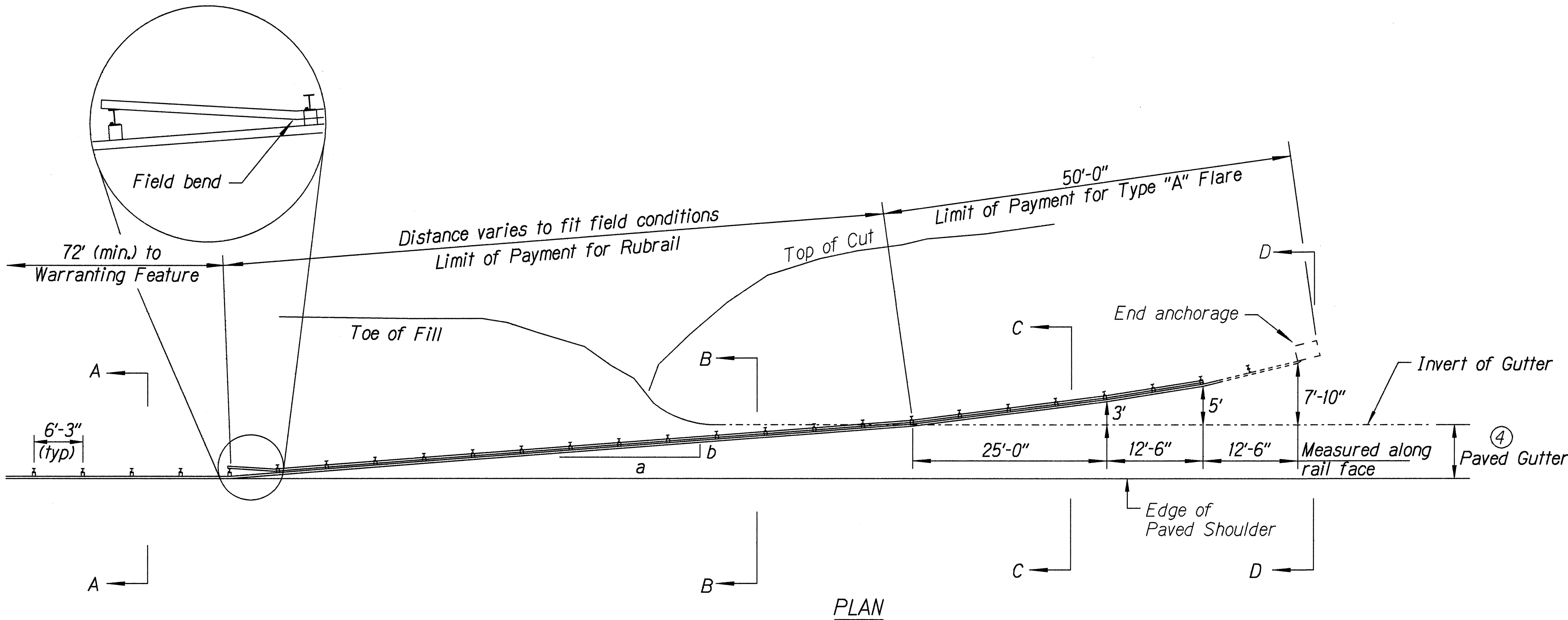


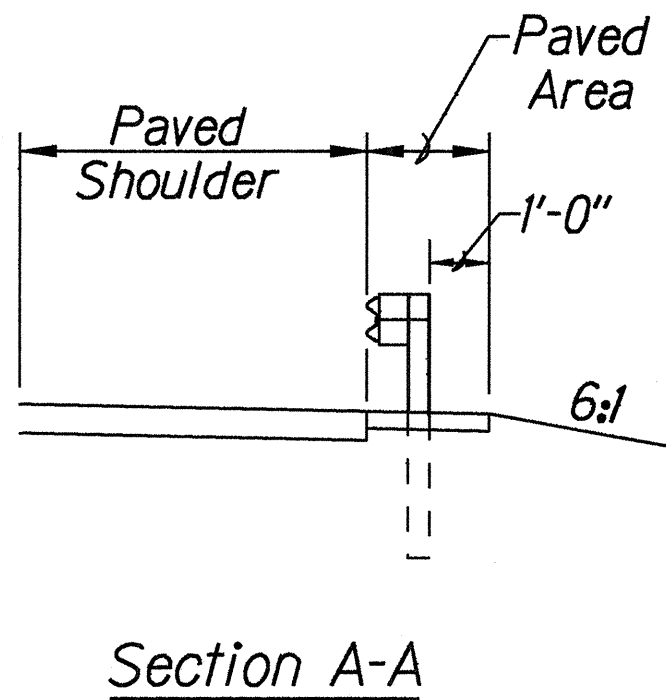
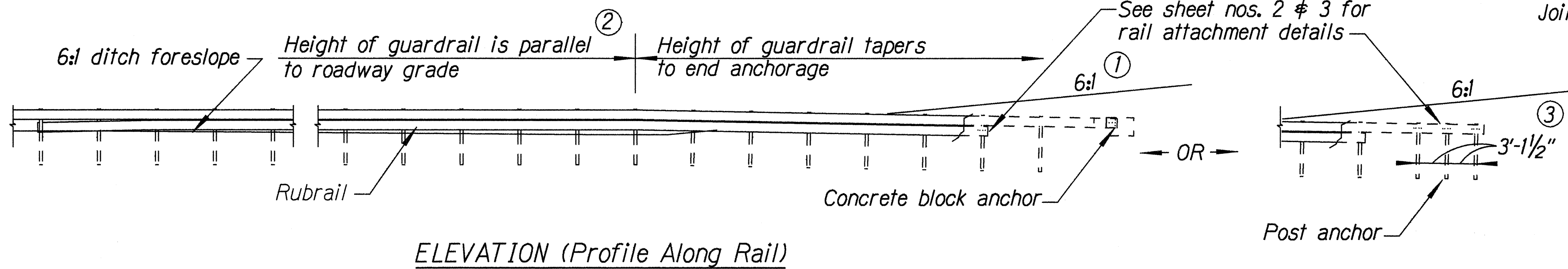
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-056-1(43)	2000	17	42

General Notes

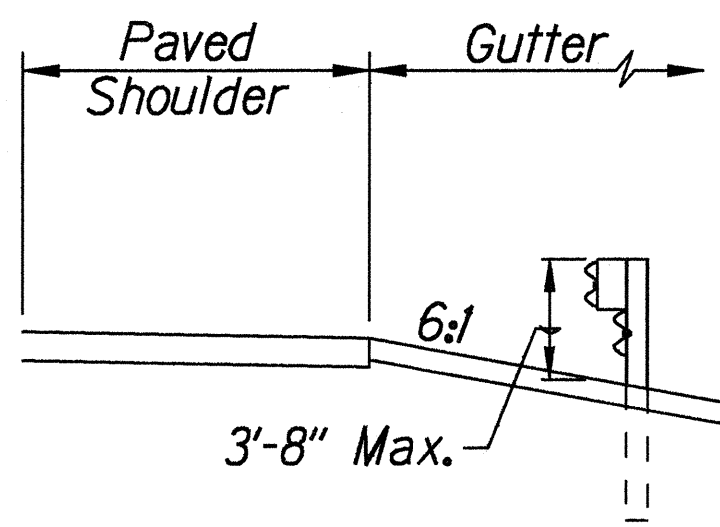
1. A 6:1 or flatter slope is desirable. However, a steeper or flatter existing slope may be used.
2. Height of guardrail may be tapered down in elevation to maintain 3'-8" maximum height.
3. All posts are 8'-0" in length from where the guardrail flares away from the shoulder back to the post anchor. 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.



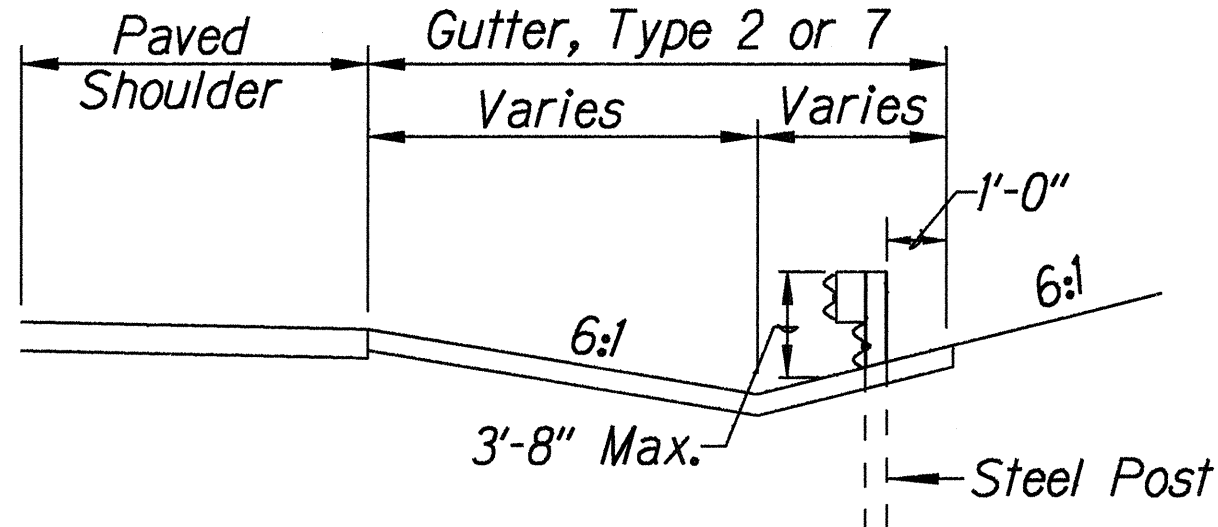
Design speed mph	a:b
68	15:1
62	13:1
56	12:1
50	11:1
43	10:1
37	9:1
31	7:1



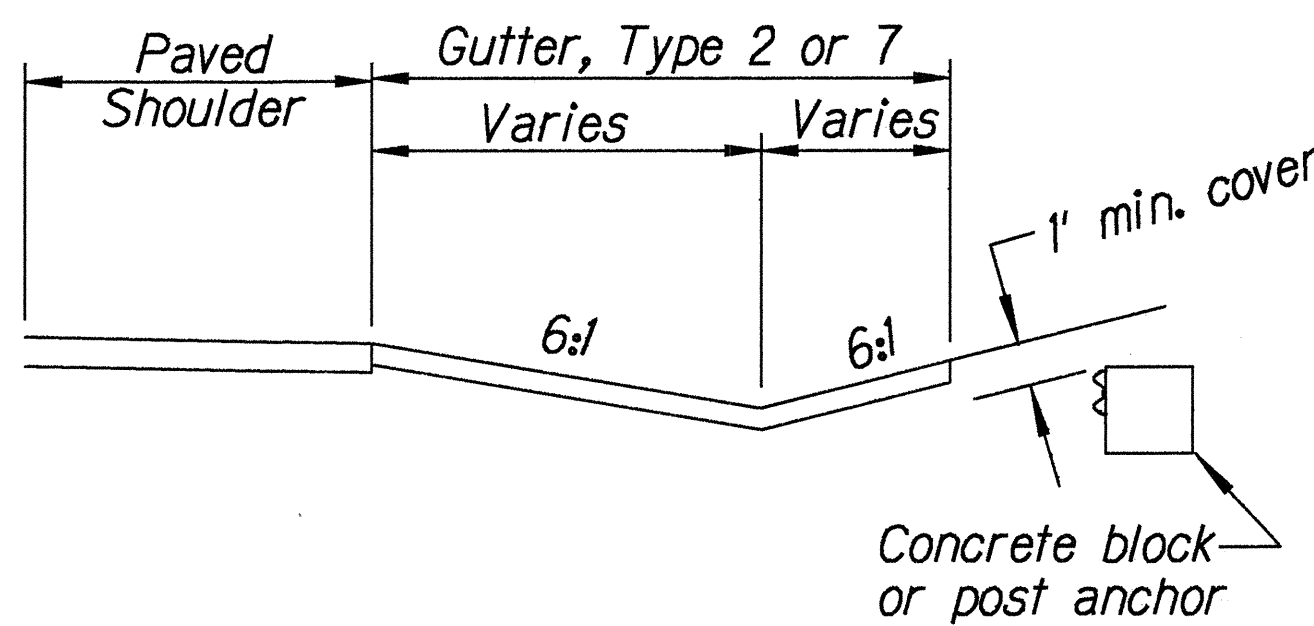
Section A-A



Section B-B  
(With Rubrail)



Section C-C  
(With Rubrail)



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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPE "A" FLARE**

KUHIO HIGHWAY- Guardrail and Shoulder Improvements at Various Locations

Fed. Aid Project No. STP-056-1(43)

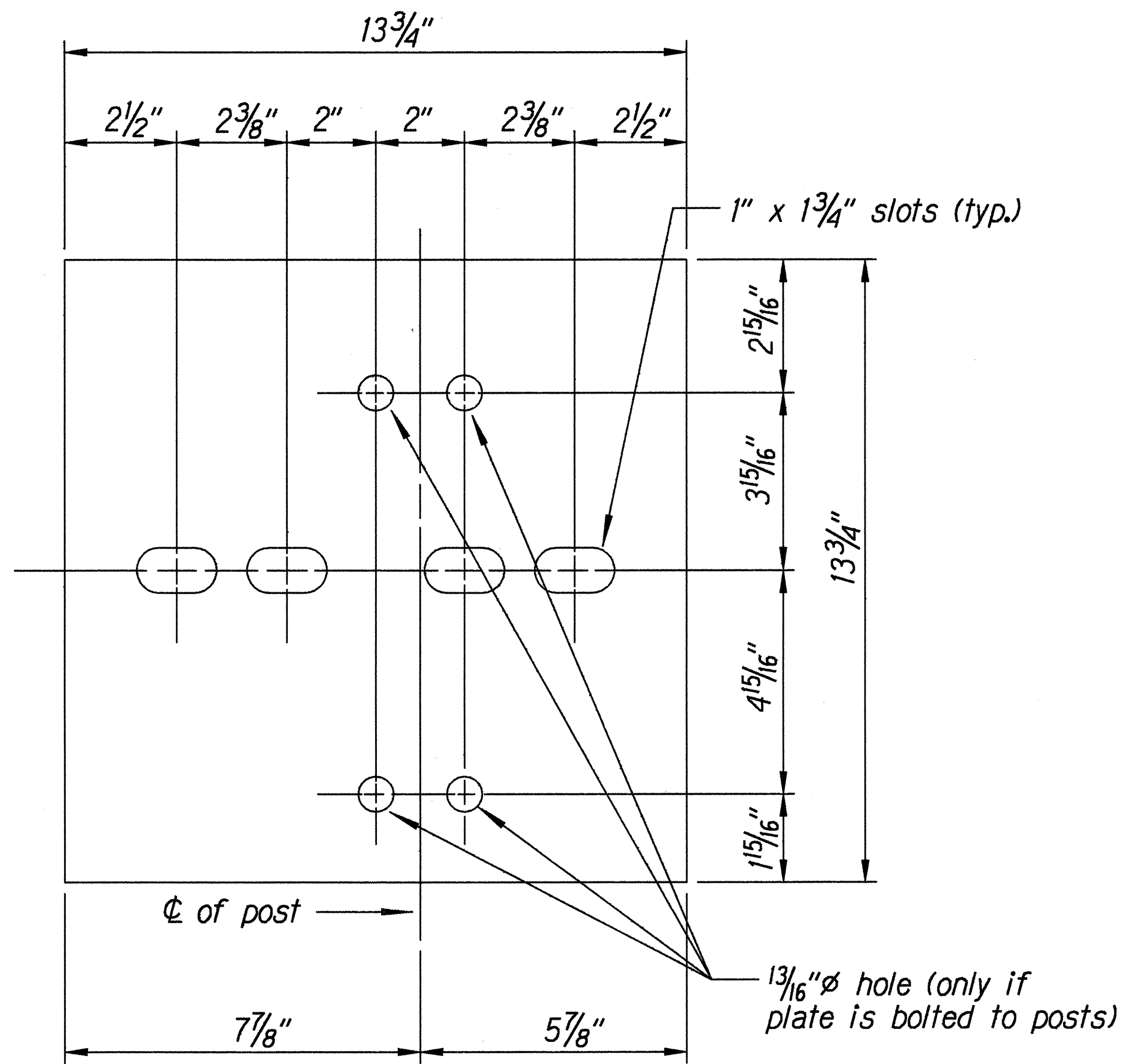
Scale: NTS Date: May, 1999

SHEET No. 1 OF 3 SHEETS

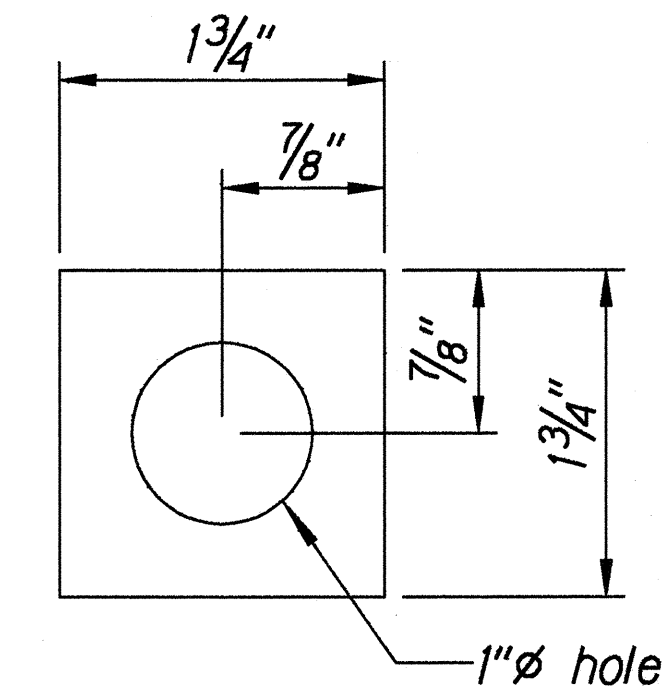
ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NOTED BY	
DATE	

r3/01/99 tel:luby/guardrail/04greedlch.dgn ekmshaf.dgn

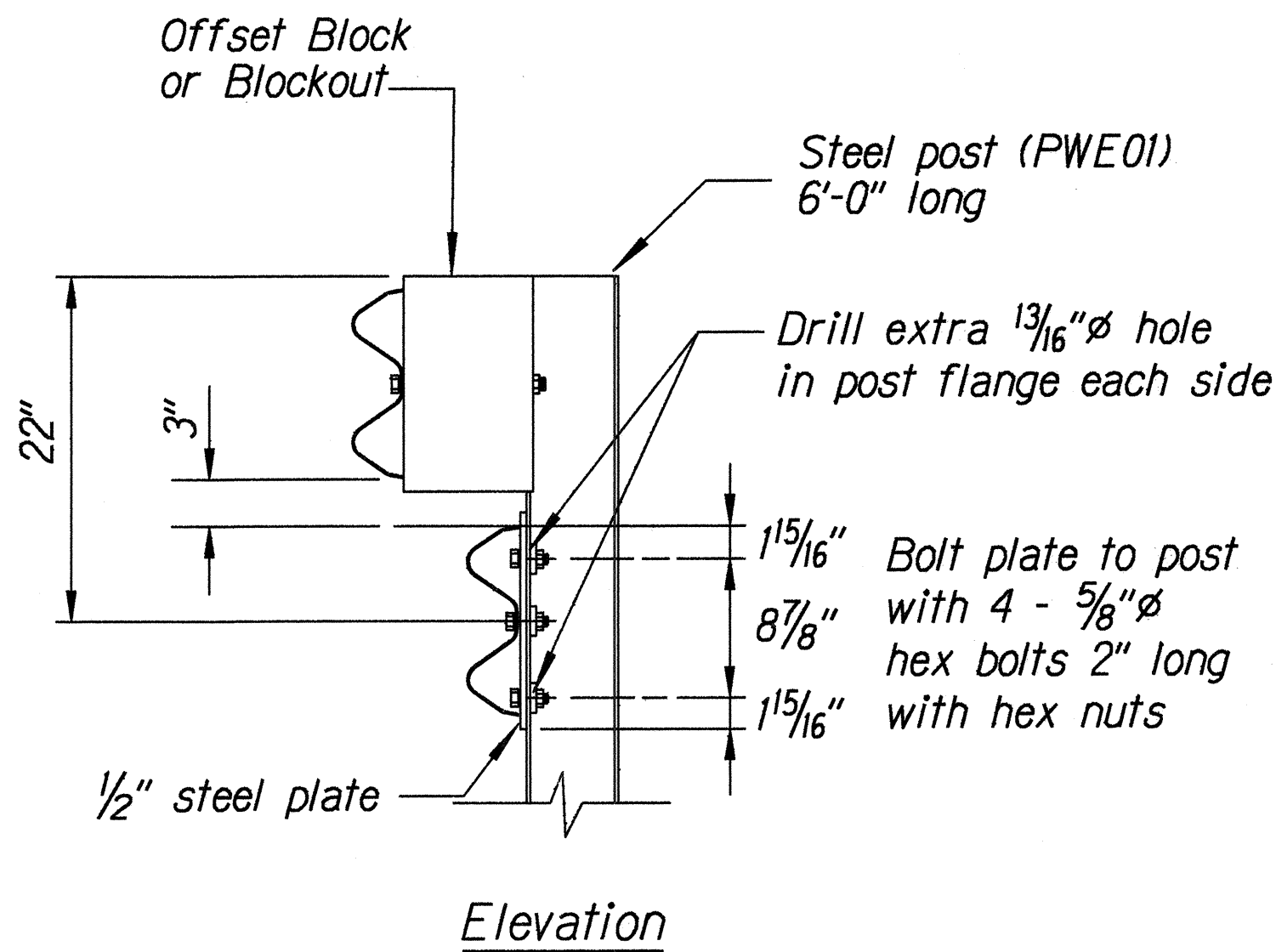
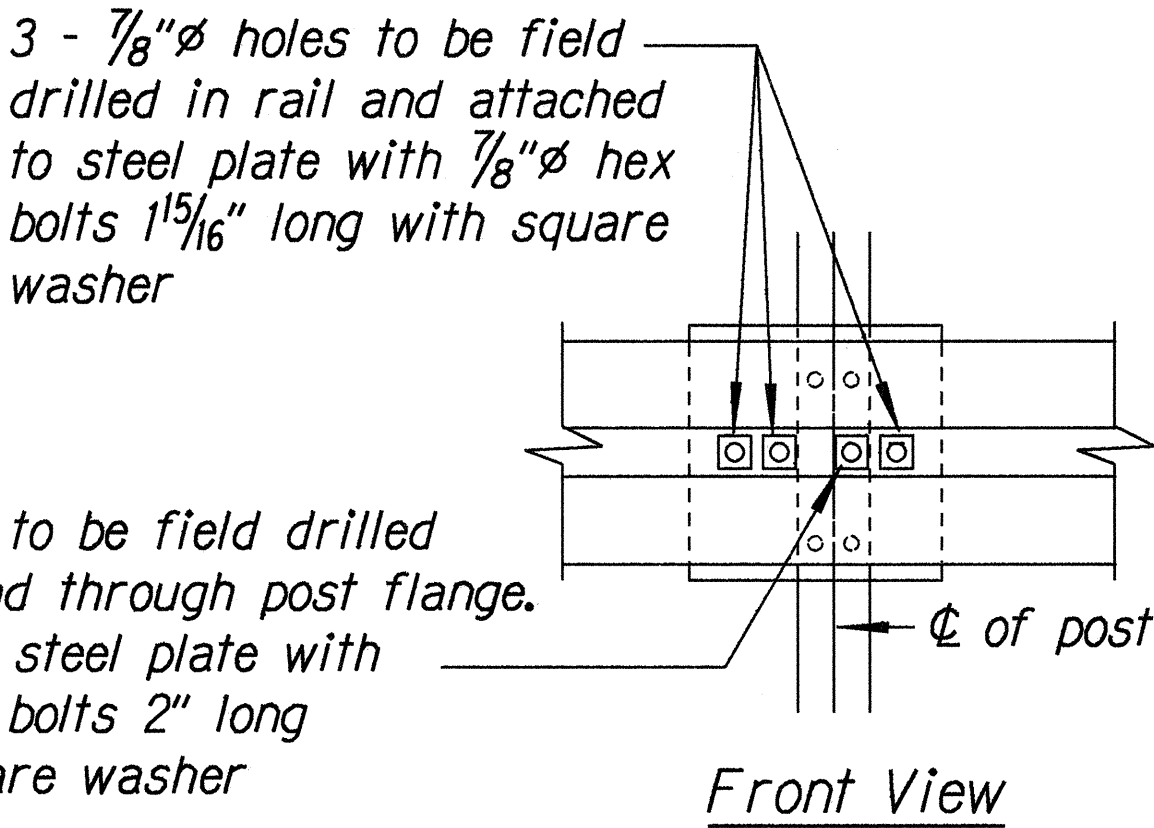
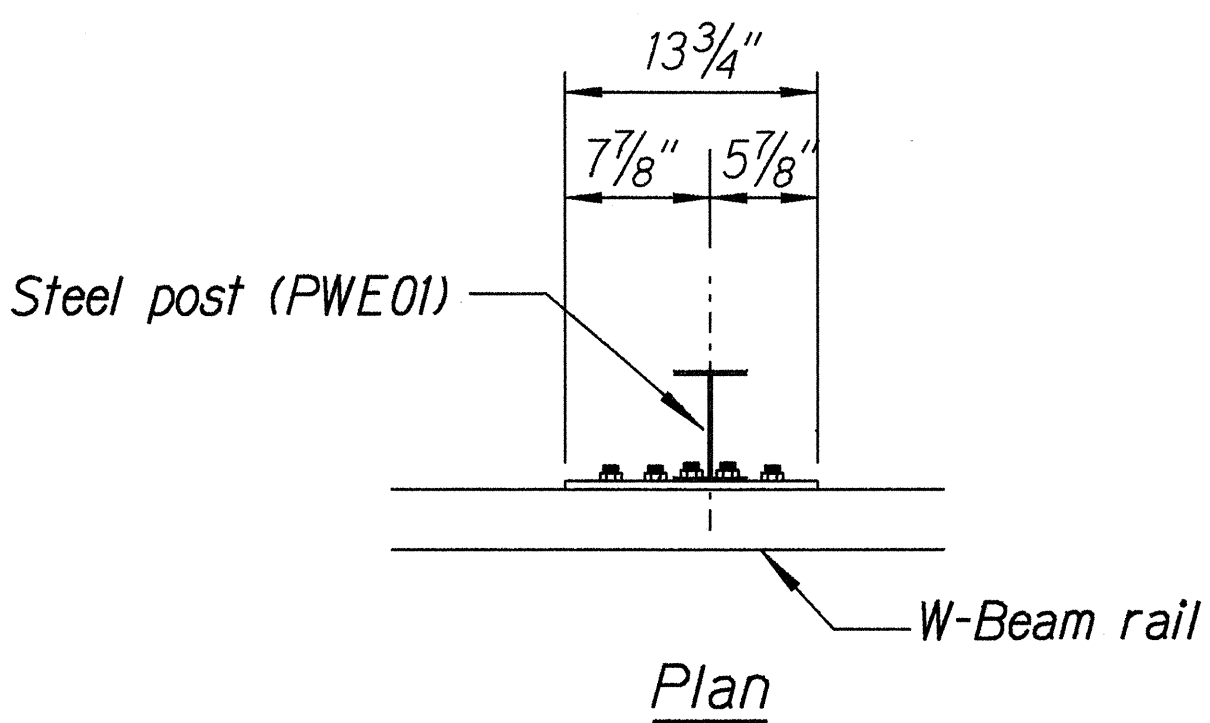
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-056-1(43)	2000	18	42



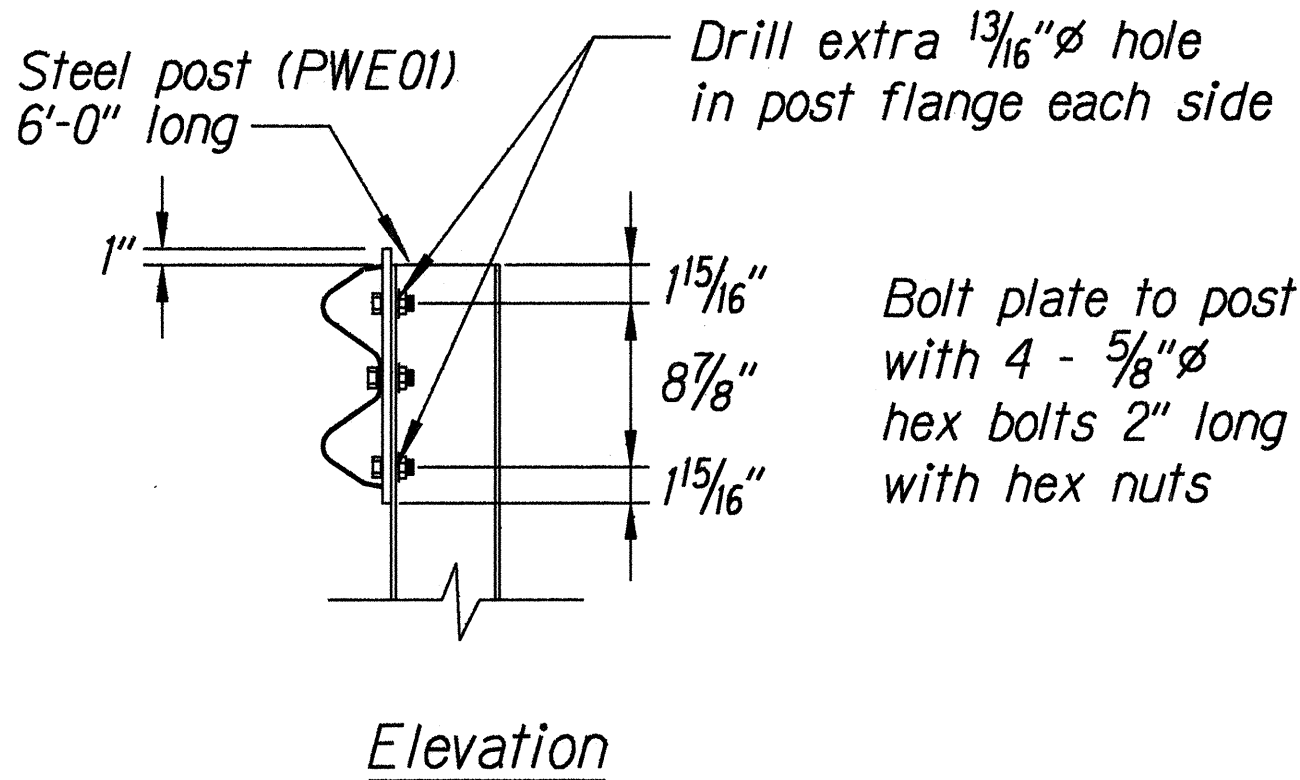
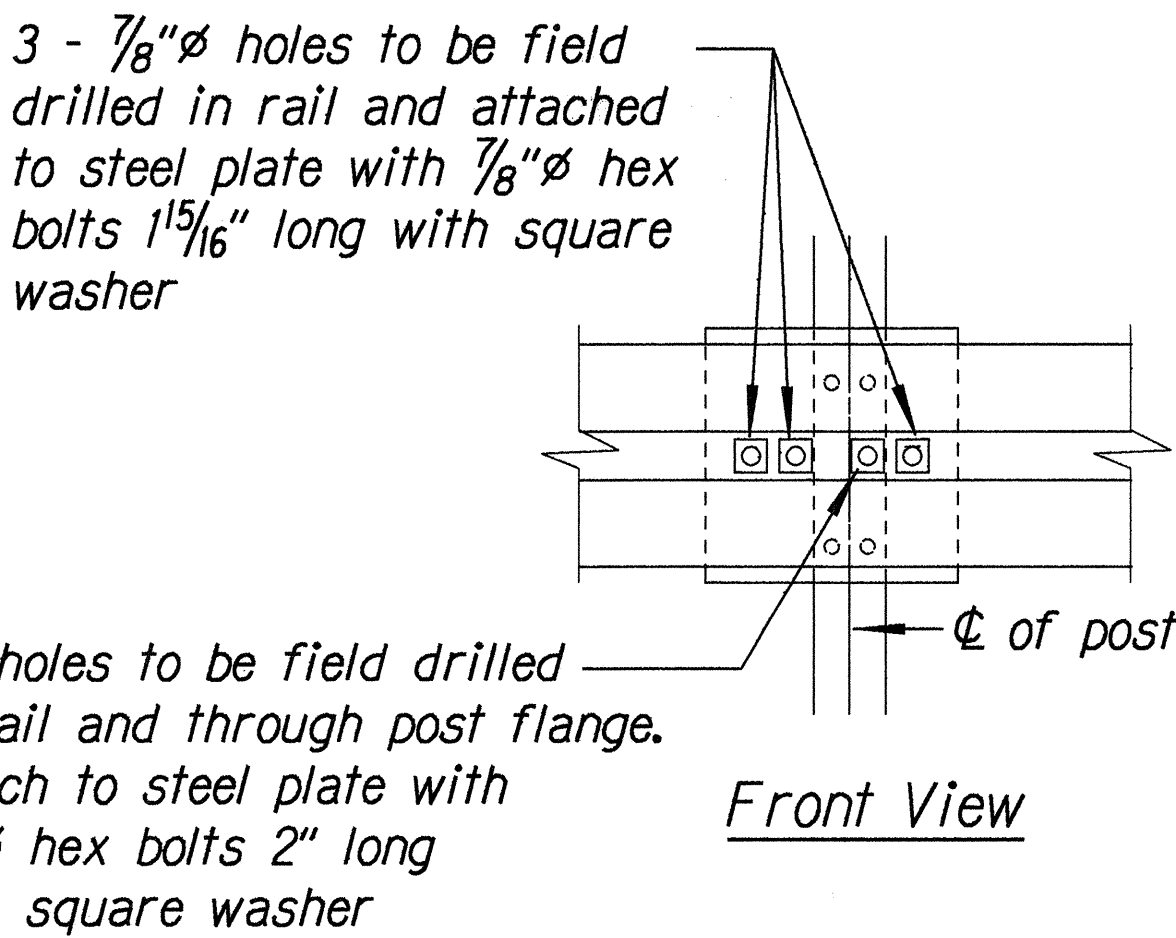
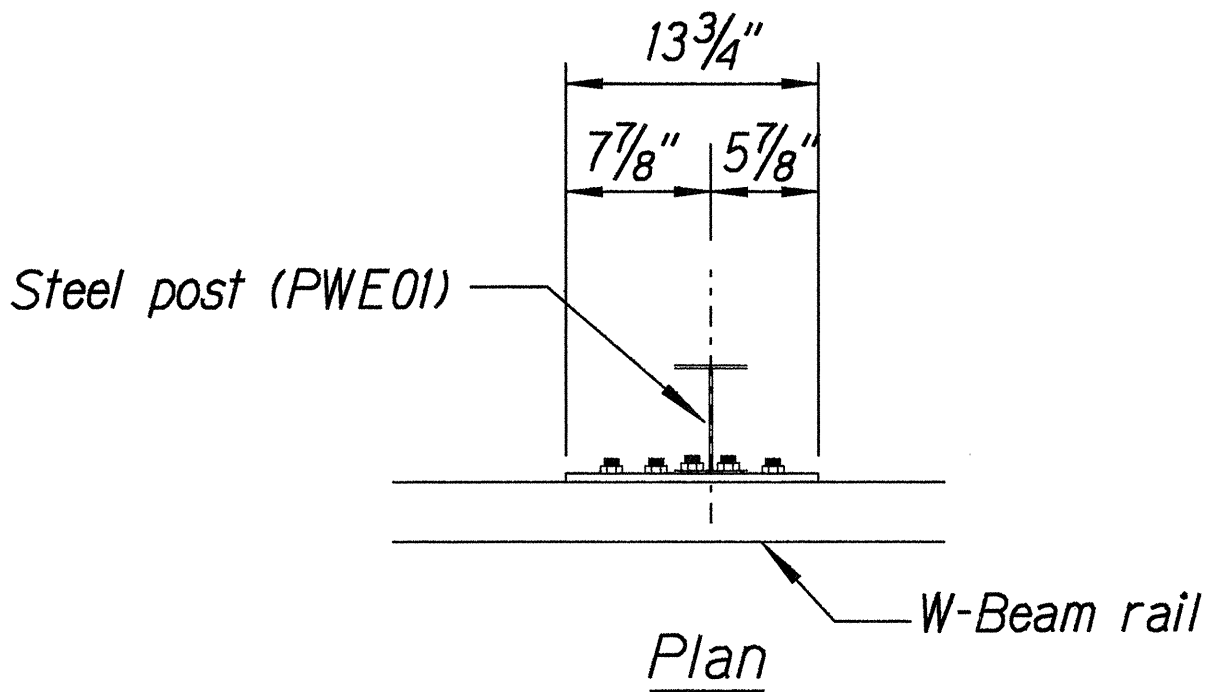
Steel Plate - 1/2"  
(Hot-dip Zinc Coated Galvanized  
Welded or Bolted to Post)



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



RUBRAIL ANCHOR DETAILS



POST ANCHOR DETAILS

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.

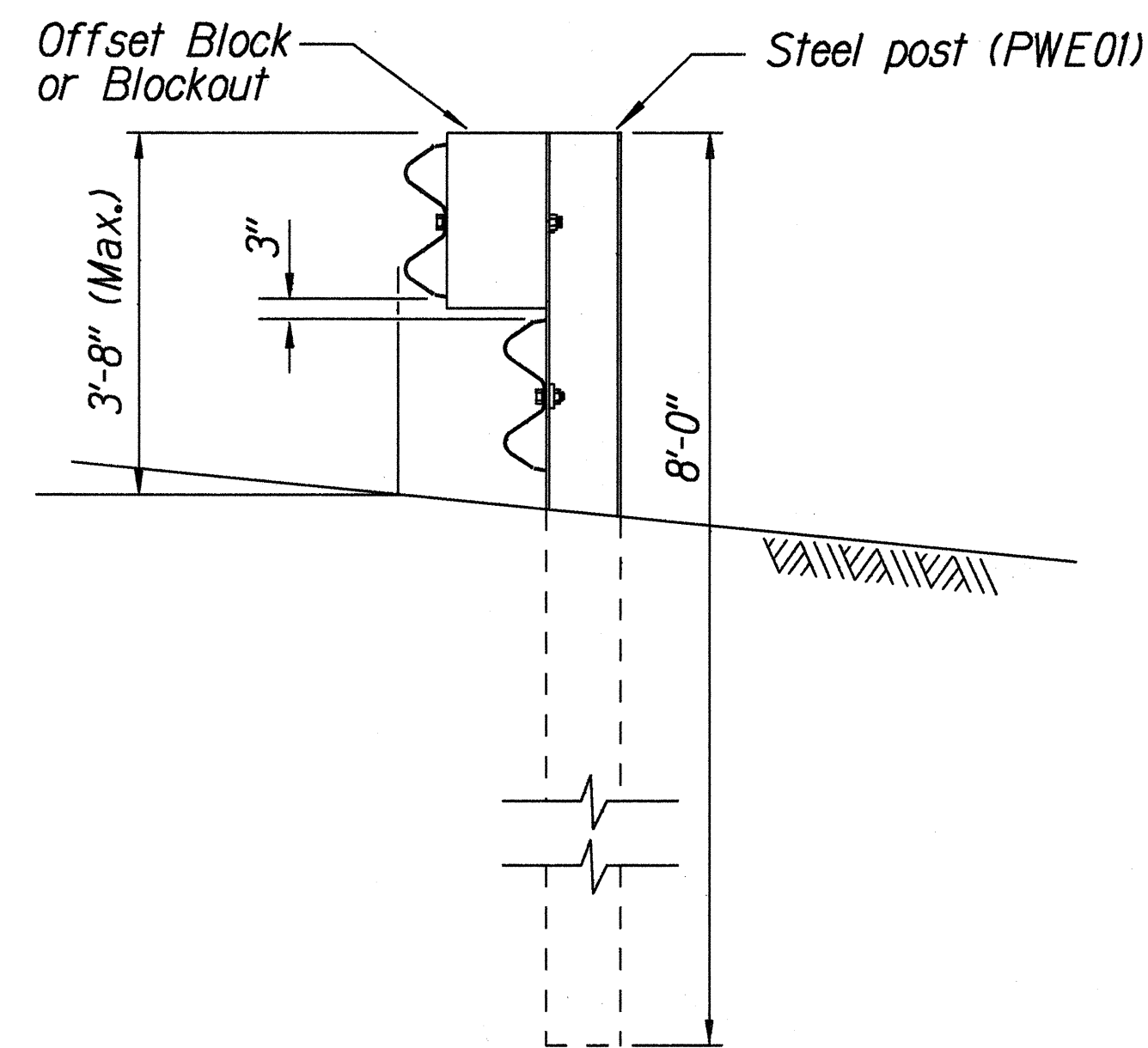
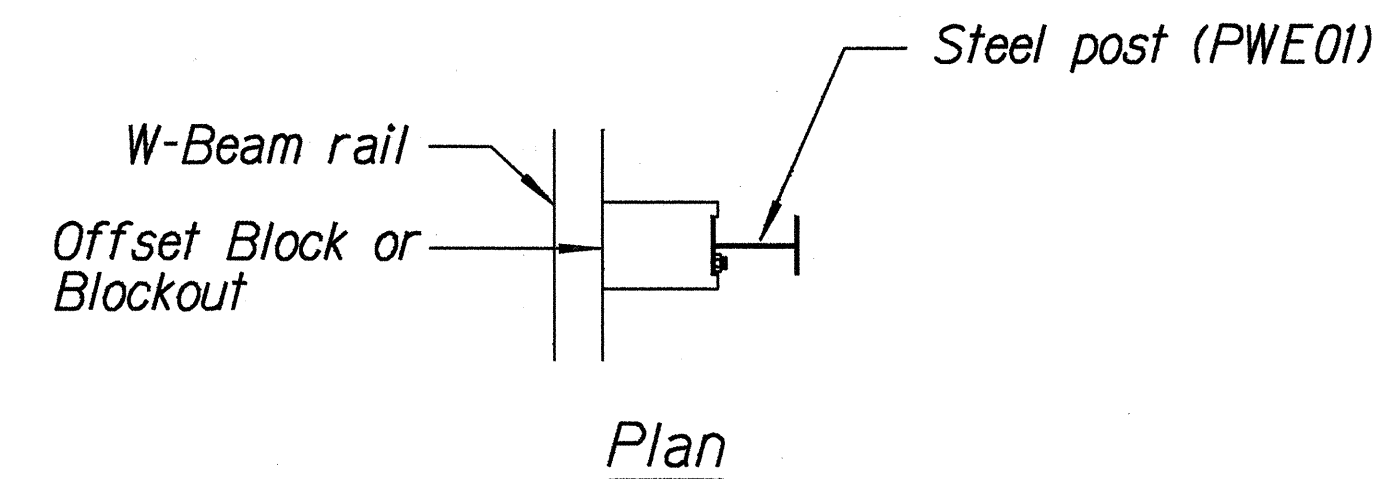
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPE "A" FLARE**  
KUHIO HIGHWAY- Guardrail and Shoulder  
Improvements at Various Locations  
Fed. Aid Project No. STP-056-1(43)  
Scale: NTS Date: May, 1999  
SHEET No. 2 OF 3 SHEETS

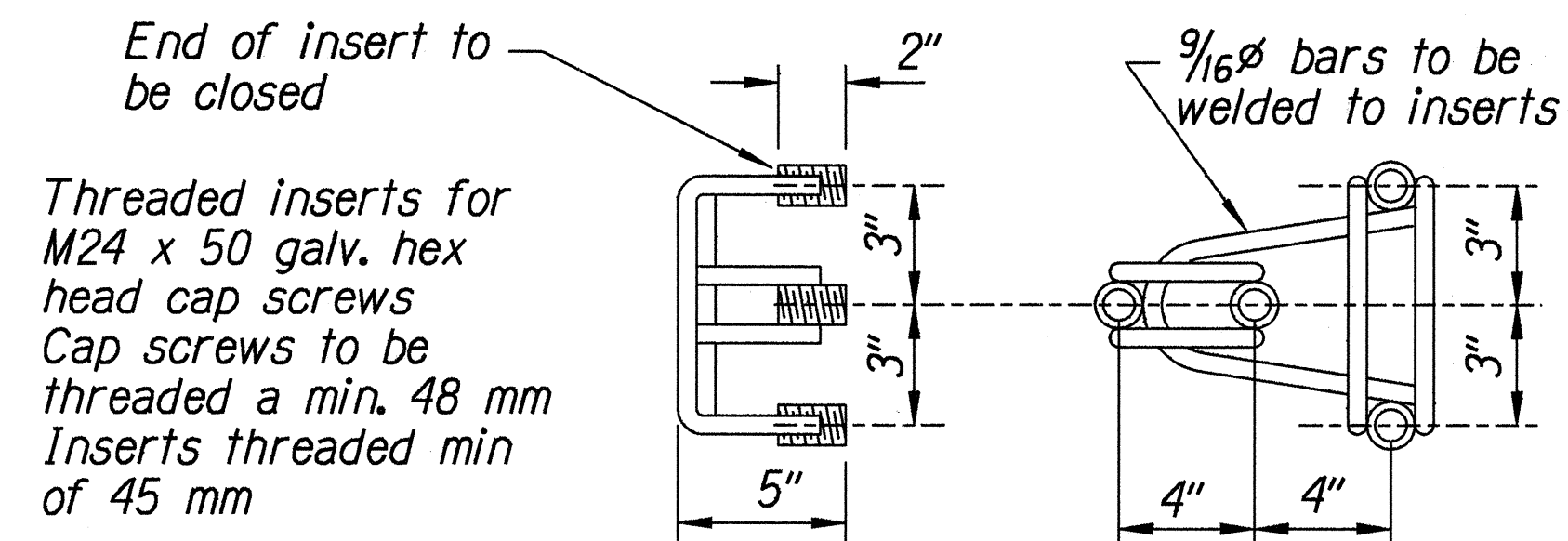
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED	DRAWN BY	
NOTED	DESIGNED BY	
NOTED	CHECKED BY	
NOTED	APPROVED BY	

13/01/99 hdruby/guardrail/44del2.dgn (standard plan TE-59 07/01/86, TE-59 11/03/89 & TE-60 07/01/86)

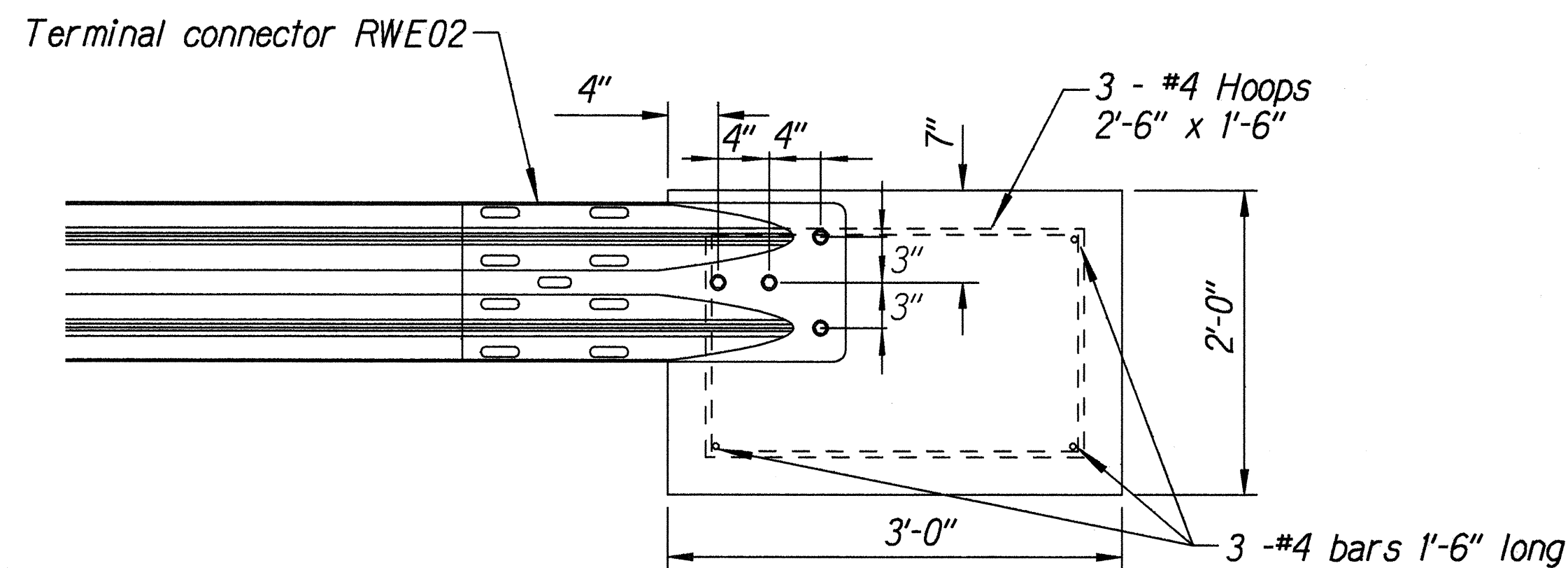
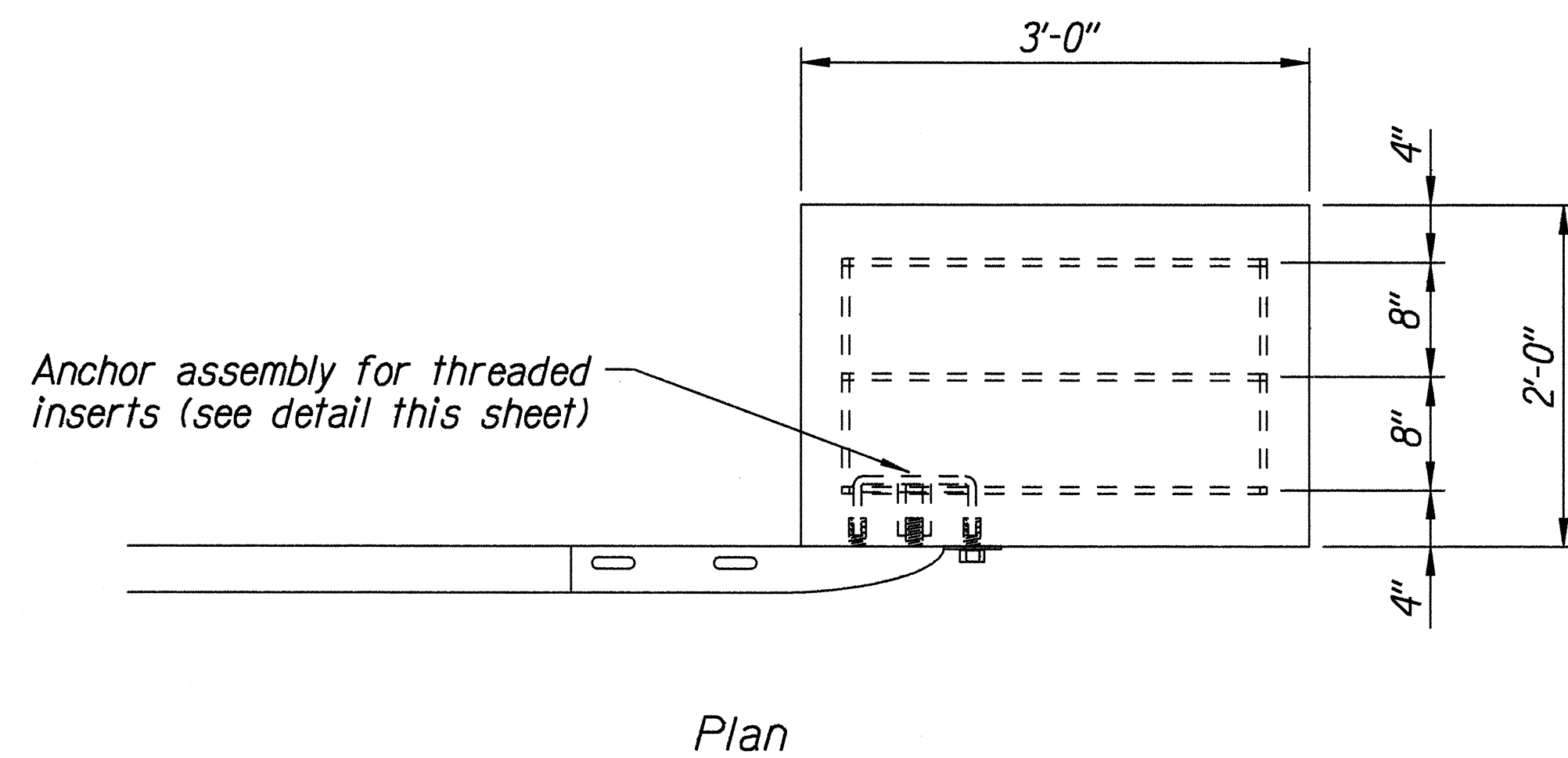
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-056-1(43)	2000	19	42



STEEL POST GUARDRAIL  
WITH RUBRAIL



ANCHOR ASSEMBLY  
CONCRETE BLOCK ANCHOR



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.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	X
00x.x	TRACED BY	X
Nc. X.dgn	QUANTITIES BY	
	CHECKED BY	

Standard plan TE-59 07/01/86, TE-59 01/03/89 # TE-60 07/01/86

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPE "A" FLARE**

KUHIO HIGHWAY- Guardrail and Shoulder  
Improvements at Various Locations  
Fed. Aid Project No. STP-056-1(43)

Scale: NTS Date: May, 1999

SHEET No. 3 OF 3 SHEETS