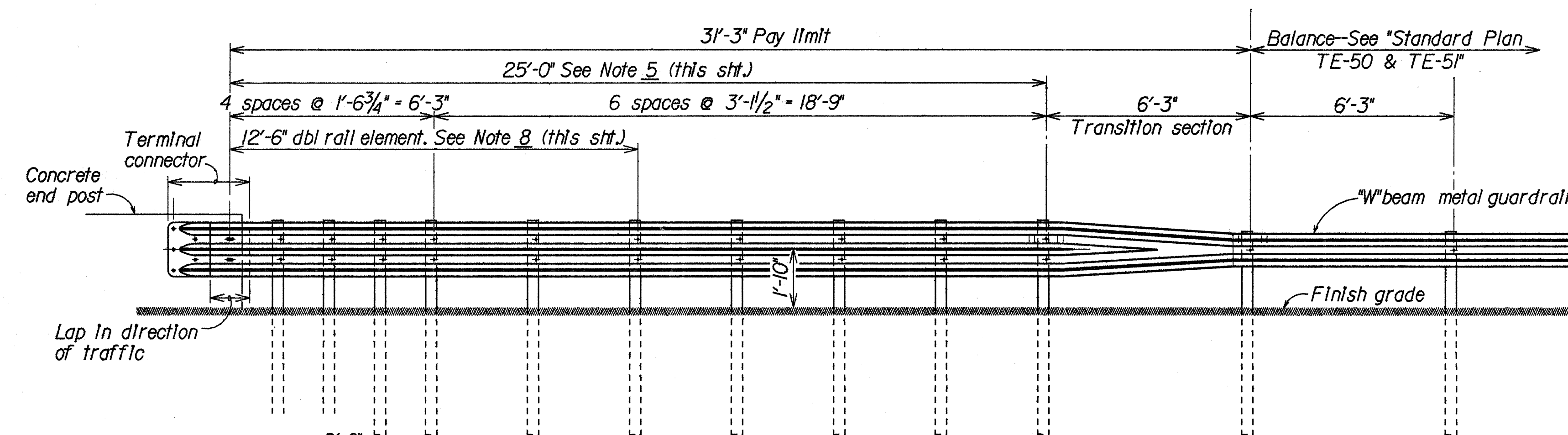


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-02-89	1990	23	23

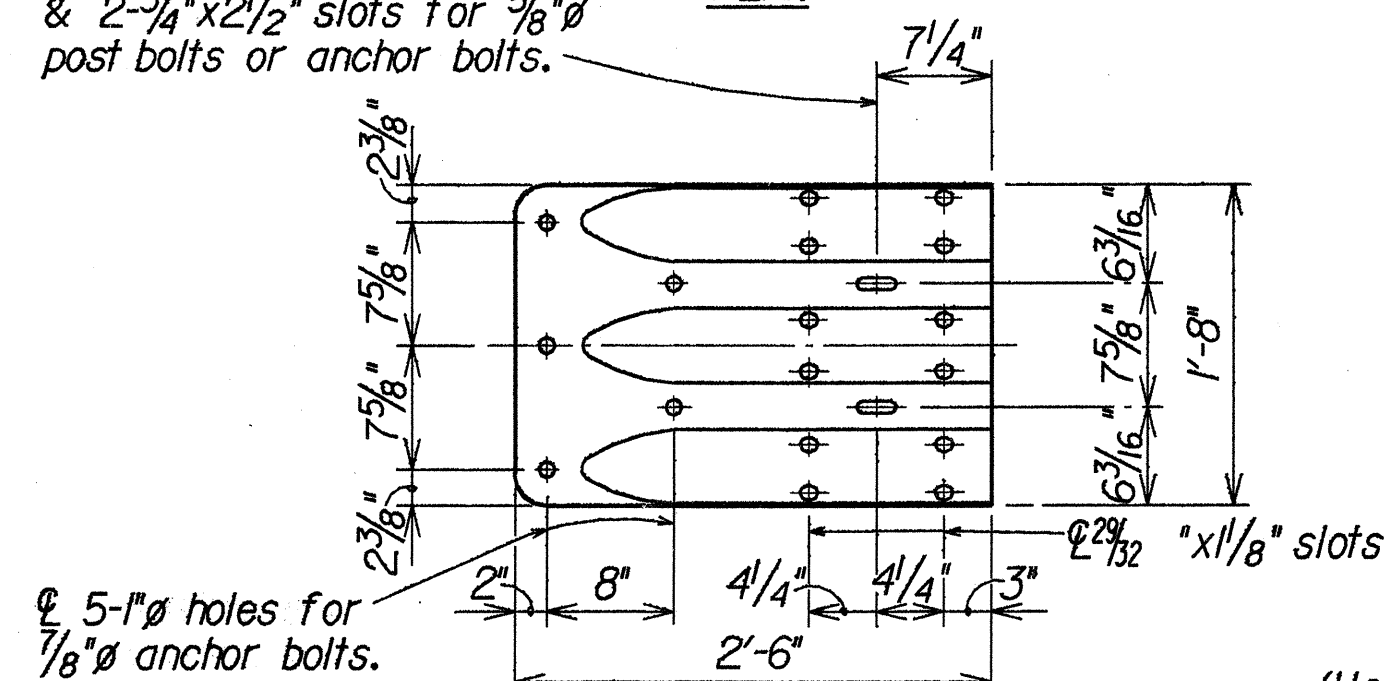


GUARDRAIL POST SPACING DETAIL

Scale: 3/8" = 1'-0"

Guardrail connection ref. line & 2-3/4"x2 1/2" slots for 5/8" post bolts or anchor bolts.

PLAN



ELEVATION

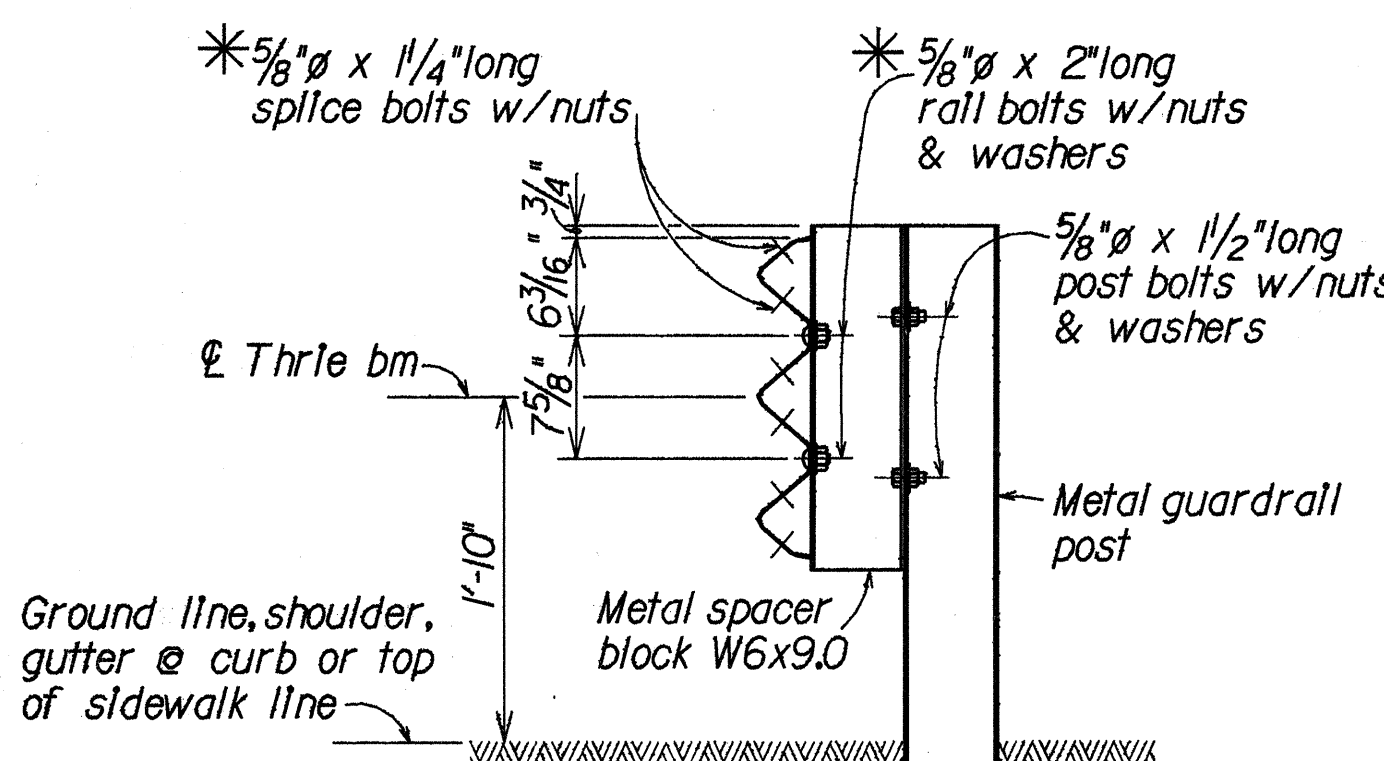
TERMINAL CONNECTOR

Scale: 1" = 1'-0"

(Use at posts where splices do not occur. Omit at double rail element section)

BACKUP PLATE

Scale: 1" = 1'-0"



TYPICAL SECTION

METAL GUARDRAIL ON METAL POST WITH METAL SPACER BLOCK

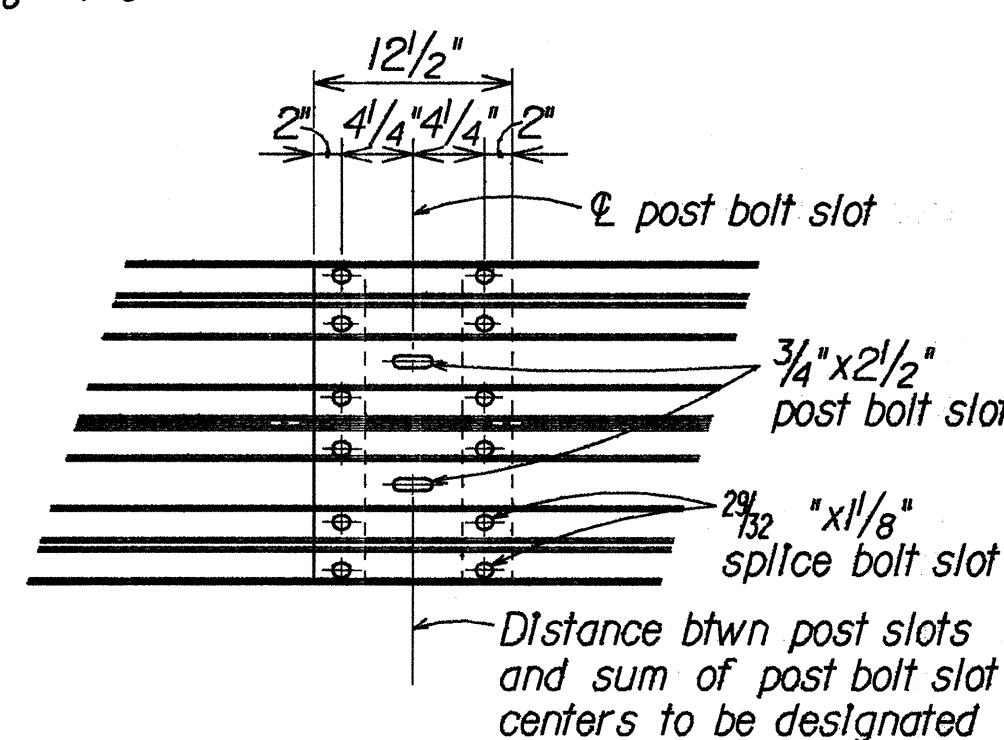
Scale: 1" = 1'-0"

POST DETAILS

Scale: 1" = 1'-0"

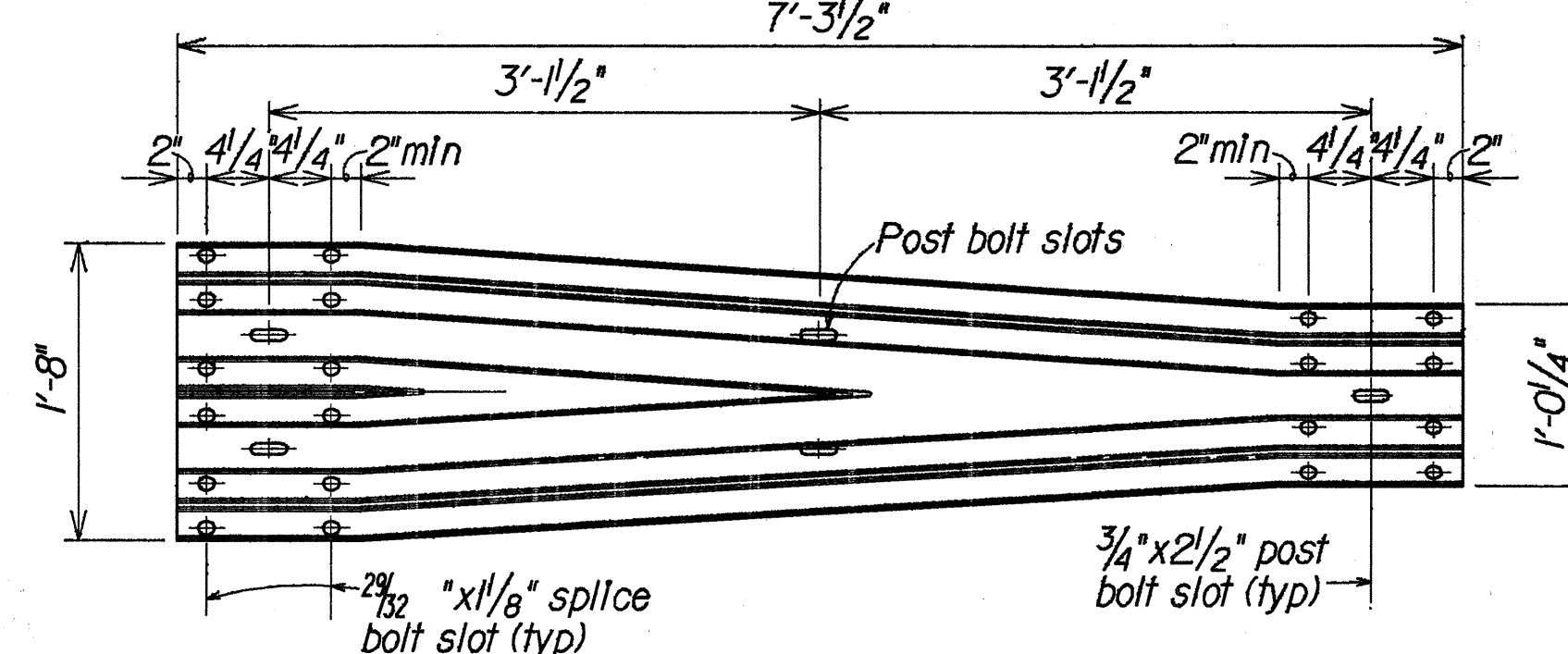
RAIL SPLICE

Scale: 1" = 1'-0"



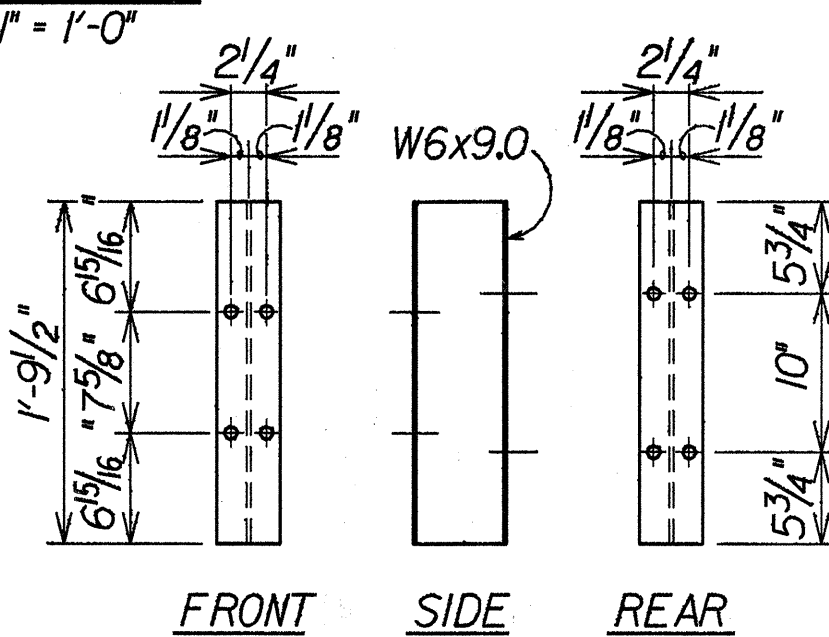
TRANSITION SECTION

Scale: 1" = 1'-0"



SPACER BLOCK DETAILS

Scale: 1" = 1'-0"

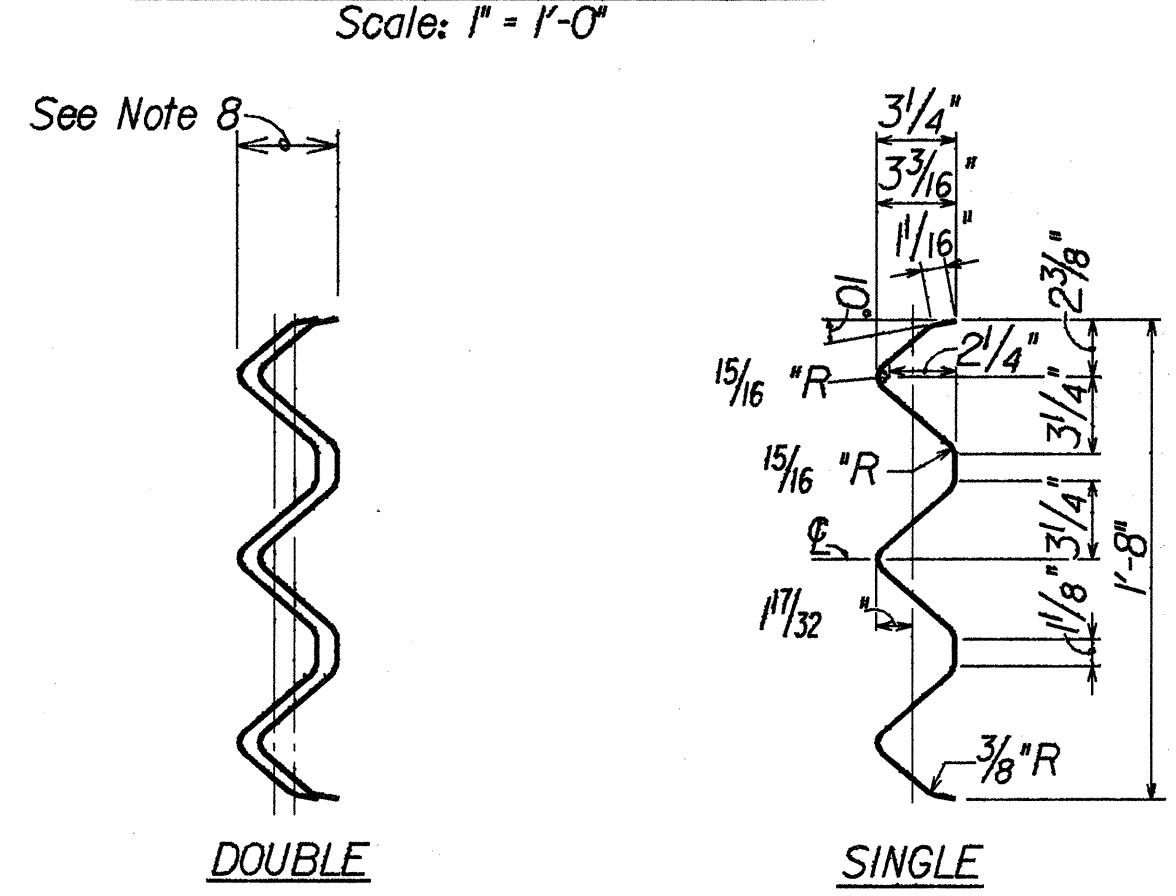


SECTION THRU RAIL ELEMENT

Scale: 1 1/2" = 1'-0"

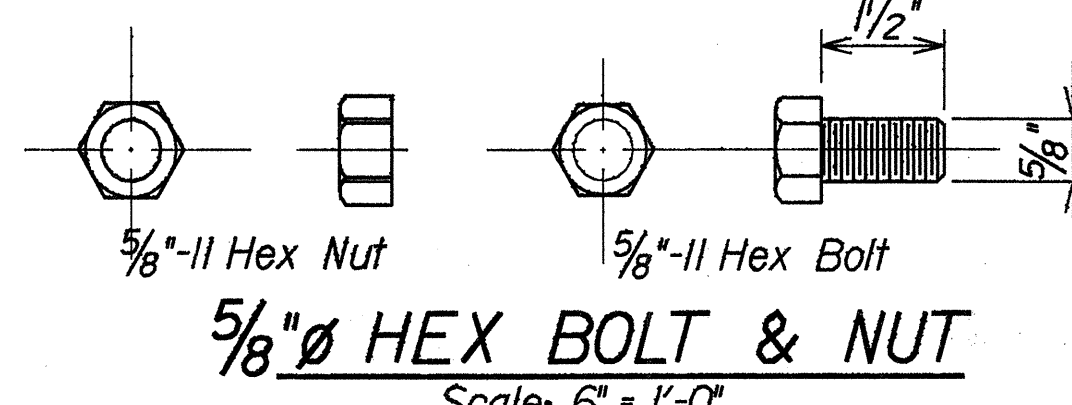
SECTION THRU RAIL ELEMENT

Scale: 1 1/2" = 1'-0"



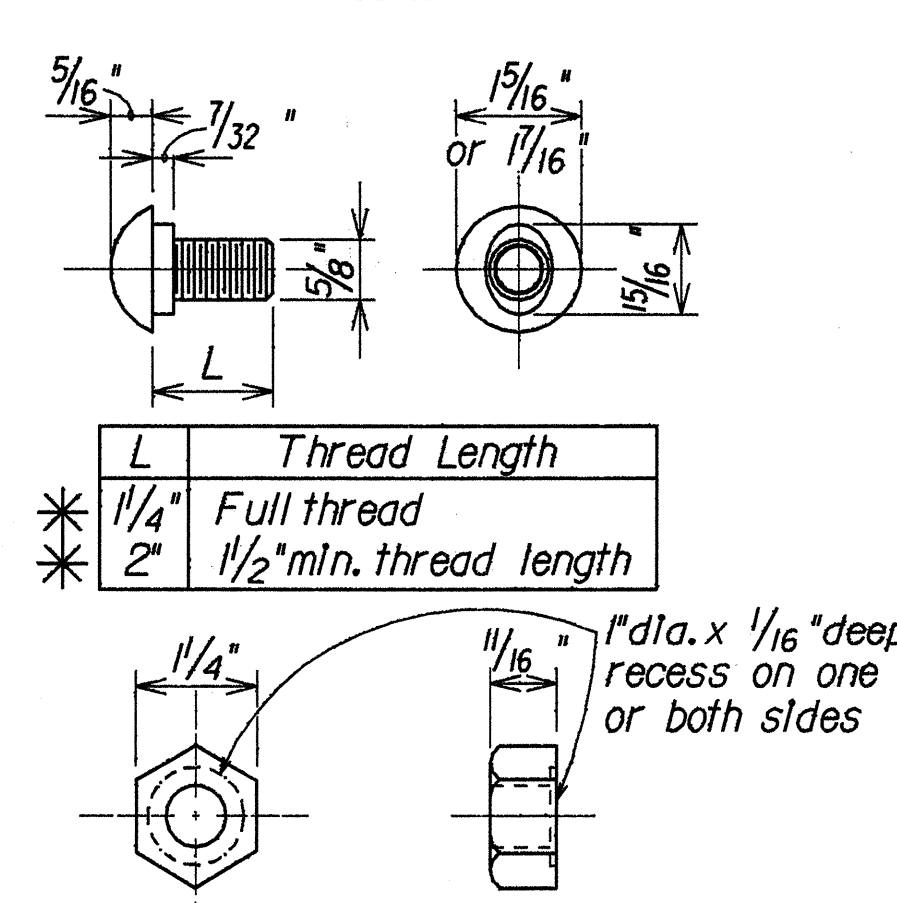
STEEL WASHER FOR 5/8" BOLT

Scale: 6" = 1'-0"



5/8" BUTTON HEAD BOLT & RECESS NUT

Scale: 6" = 1'-0"



NOTES:

- "Terminal Connector" shall be fabricated from 10 gauge steel conforming to the requirements of AASHTO M180.
- All anchor bolts shall be high strength bolts conforming to the requirements of ASTM 325.
- Anchor bolt length shall be such that a snug fit of the elements and full thread engagement plus 1/4" (max) is attained.
- "Terminal Connector", tapered box and standard spacer; including all anchor bolts, cap PL, nuts and washers; shall be hot-dip galvanized after fabrication.
- First 25'-0" of guardrail adjoining "Terminal Connector" shall be of galvanized steel and supports spaced as shown on the detail drawings.
- Heads of through anchor bolts shall be placed on the traffic side of the end block; those at the thru spacer block excepted.
- Where double (nested) beam occur, 12" "Backup Plate" not required.
- Double (nest 1st panel) thrie beam elements at all end post connections, except on highways with one-way traffic pattern, use single thrie beam element at end post on trailing end only.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GUARDRAIL TYPE 3 THRIE BEAM APPURTENANCES & POST SPACING DETS.
GUARDRAIL AND SHOULDER IMPROVEMENTS
AT VARIOUS LOCATIONS ON OAHU
Proj. No. HWY-0-02-89
Scale: As Noted
Date: Nov. 1989

SHEET No. 58 OF 8 SHEETS