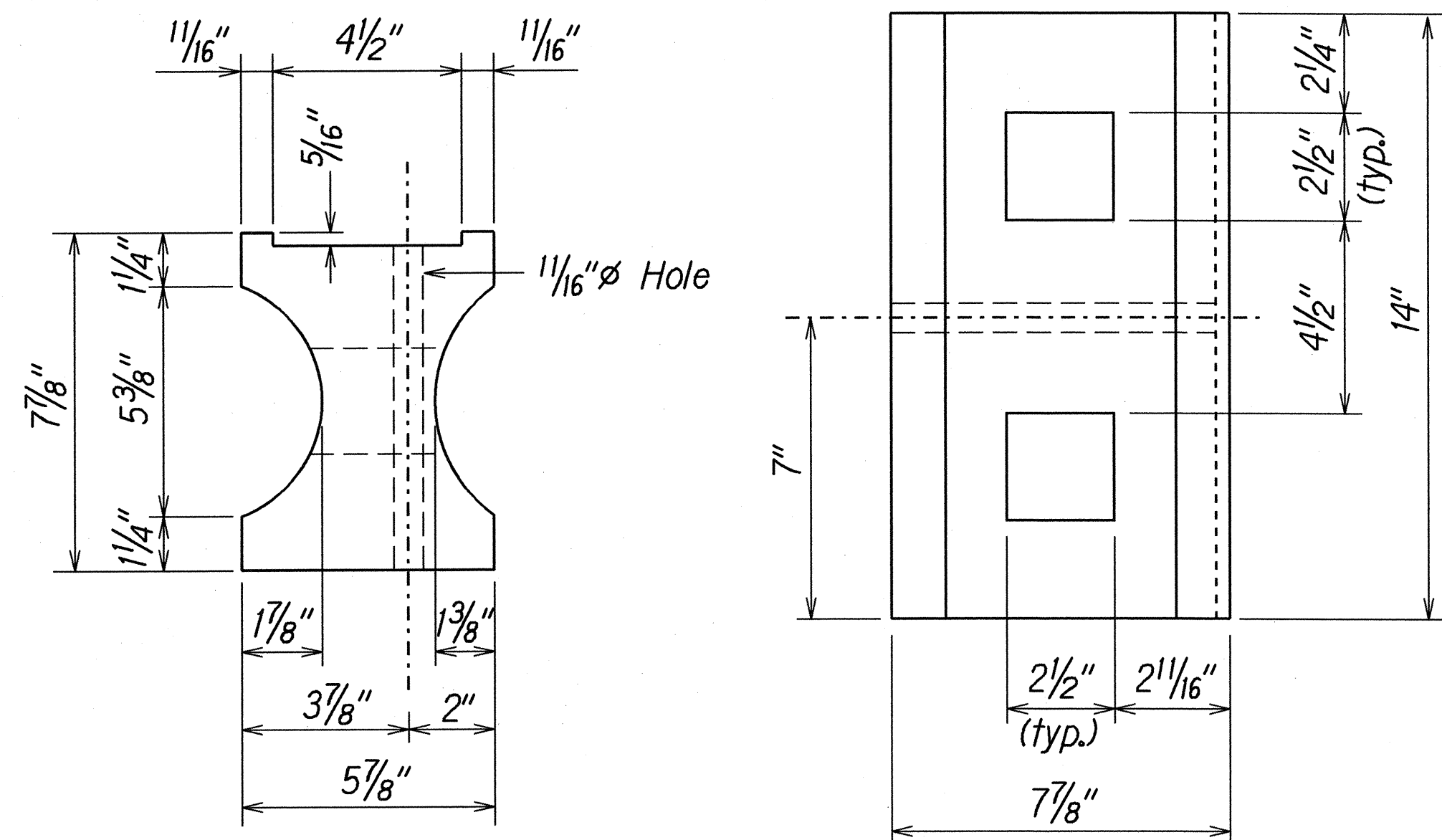
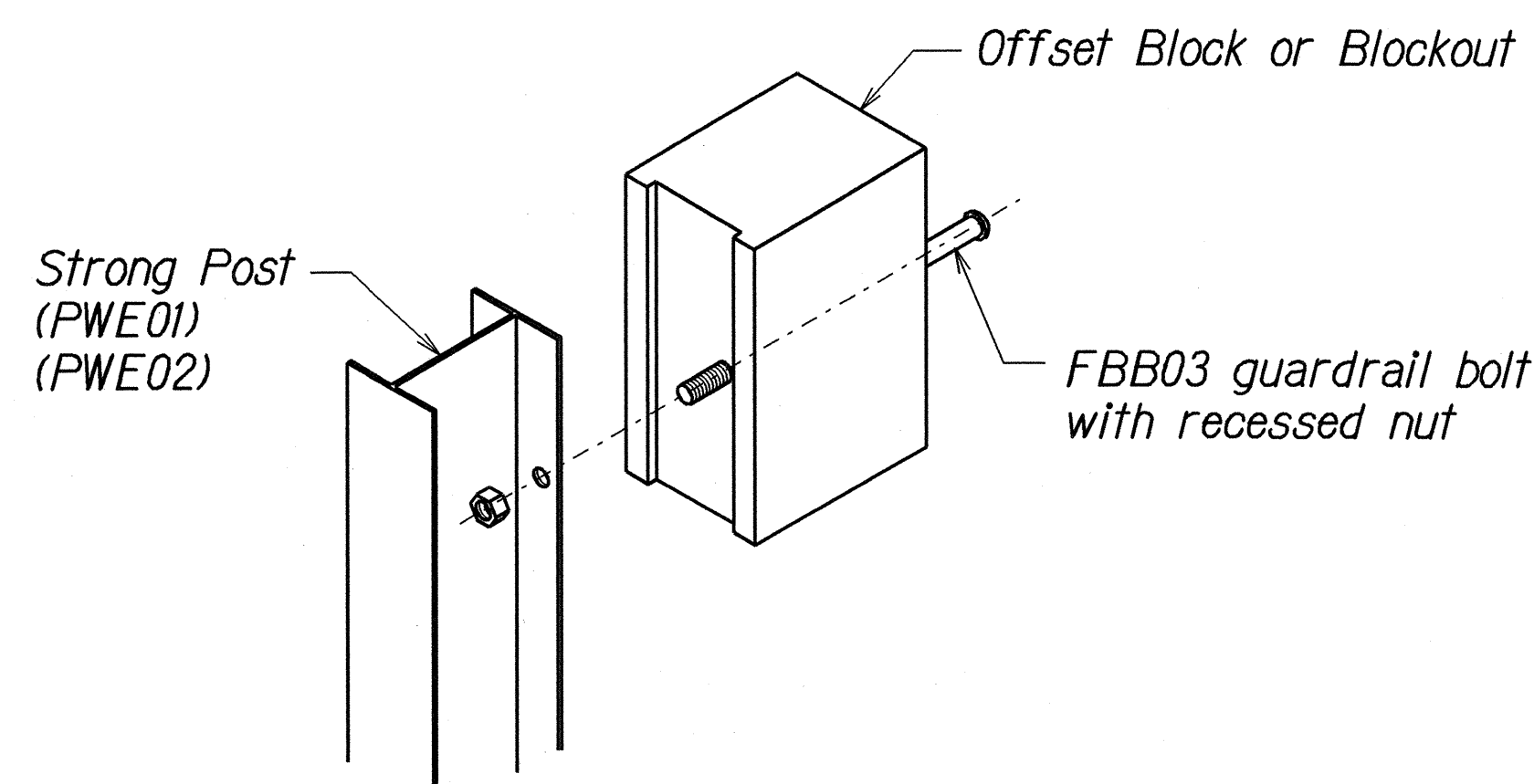


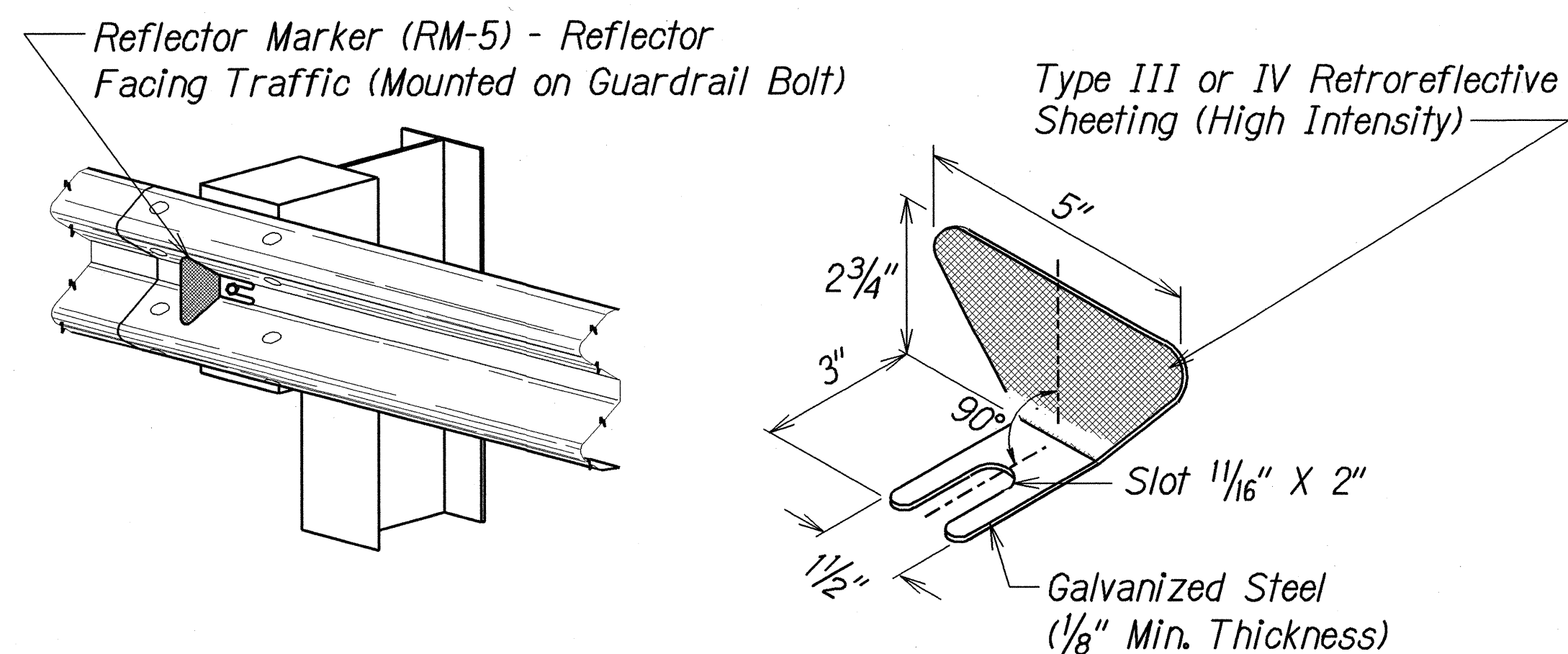
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56B-01-01M	2003	12	34



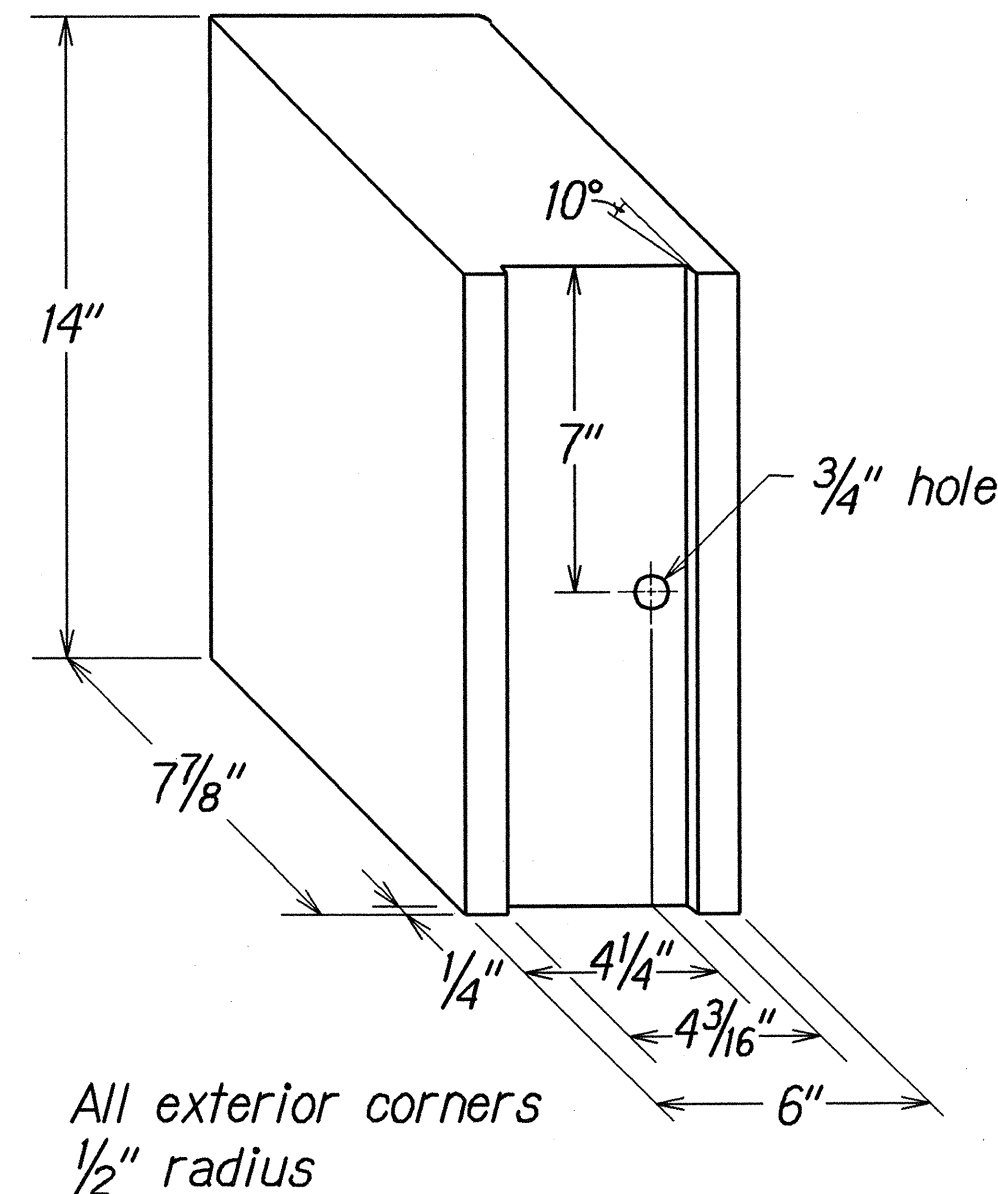
TOP
SIDE
RECYCLED PLASTIC BLOCKOUT (TYPE I)



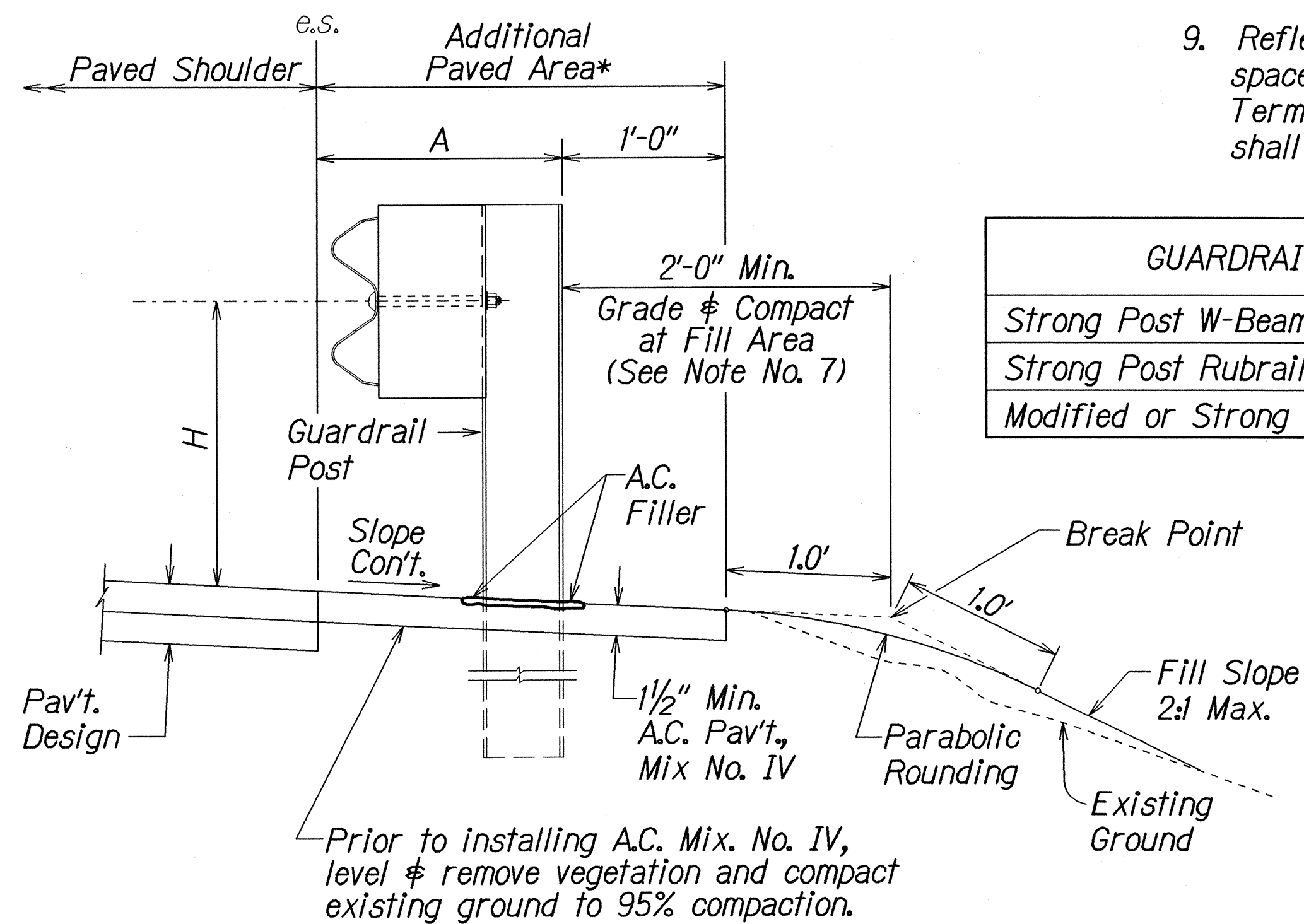
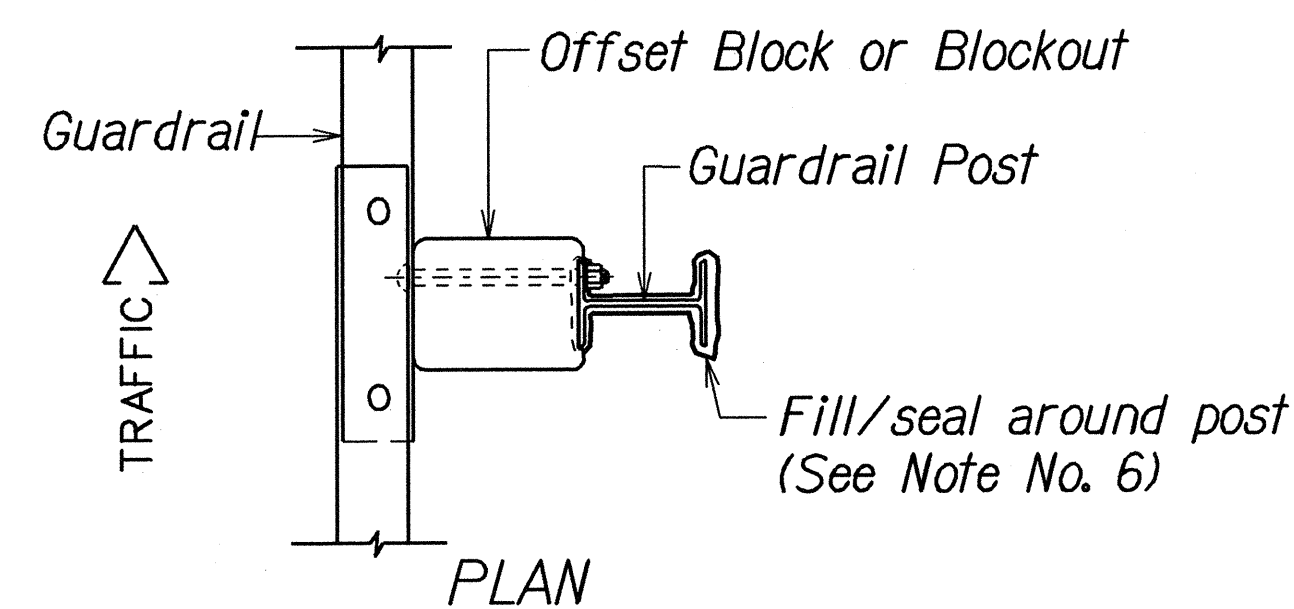
Exploded View
(Rail and washer not shown)
STEEL POST AND BLOCK DETAIL



REFLECTOR MARKER (RM-5) DETAIL AND TYPICAL INSTALLATION



RECYCLED POLYETHYLENE
OFFSET BLOCK (TYPE II)



TYPICAL GUARDRAIL INSTALLATION

GENERAL NOTES

1. All hardware, posts and fasteners shall be hot-dip zinc coated galvanized after fabrication. No punching, drilling or cutting will be permitted after galvanizing.
2. Where conditions require, special post lengths in increments of 6 inches may be specified.
3. All fasteners, posts, and rail elements (i.e. FBB03, PWE01, RWM02b, etc.) 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-AGC-ARTBA Joint Cooperative Committee, Subcommittee On New Highway Materials, Task Force 13 Report. Dimensions of fasteners, posts and rail elements have been converted from metric units into their present form.
4. The Recycled Plastic Block or Offset Block shall be approved by the State.
5. All new guardrail systems (system consists of total length of guardrail including both end treatments) shall include the Additional Paved Area.
6. After the guardrail posts are installed in the paved area, the Contractor shall fill/seal around each guardrail post and all cracks in the paved area caused during the guardrail post installation. If required by the inspector/engineer, the Contractor shall tamper the paved area around the guardrail post prior to filling/sealing. All costs associated with this work shall not be paid for separately, but shall be considered incidental to the various guardrail items.
7. When standards for the fill slope area cannot be met, a site specific, engineer approved design may be used.
8. New A.C. pavement at guardrails shall extend 6 feet longitudinally beyond terminal ends.
9. Reflector Markers (RM-5) mounted on guardrails shall be spaced every 25 feet. RM-5's shall not be installed on Terminal Sections. Furnishing and installing of each RM-5 shall be considered incidental to the adjacent guardrail system.

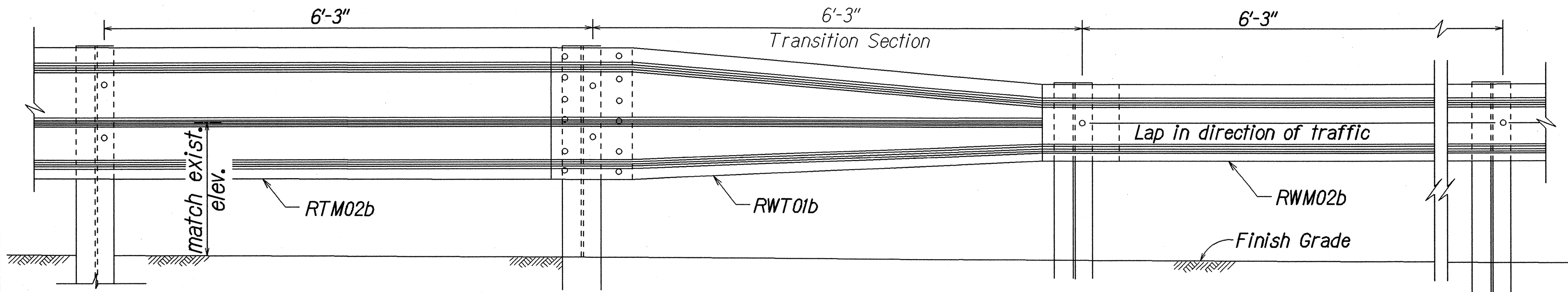
GUARDRAIL TYPE	DIMENSION	
	H	A
Strong Post W-Beam	1'-9 5/8"	1'-6"
Strong Post Rubrail (W-Beam)	2'-0"	1'-6"
Modified or Strong Post Thrie Beam	2'-0"	2'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL DETAILS & NOTES

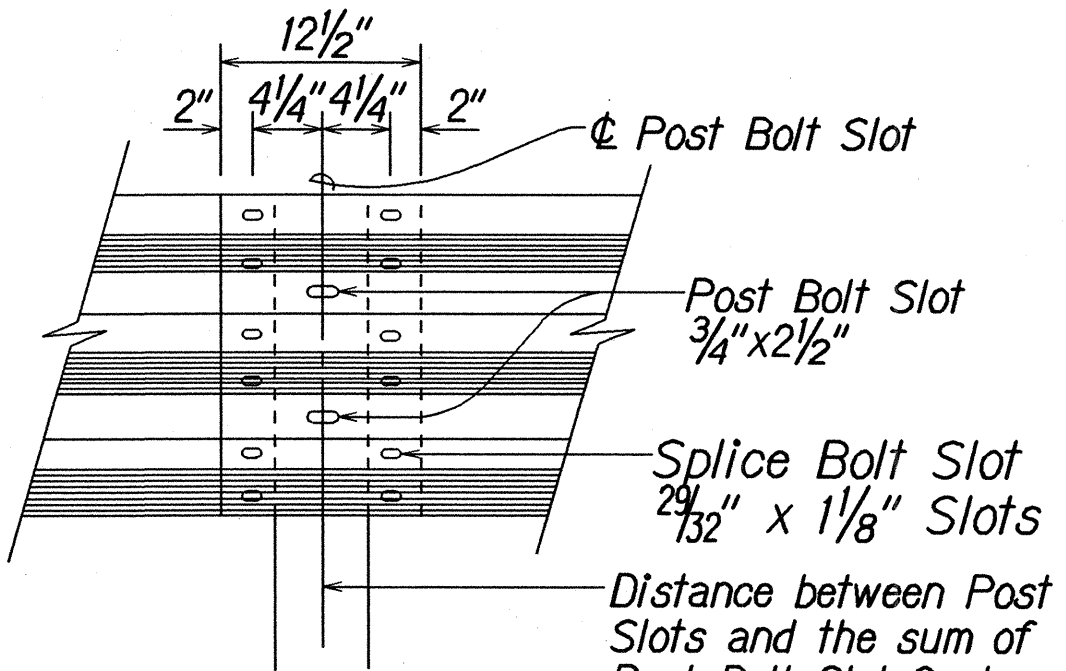
KUHIO HIGHWAY RESURFACING
Vicinity of Kealia
Project No. 56B-01-01M
Scale: Not to Scale Date: April, 2003
SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56B-01-01M	2003	ADD.13S-1	34

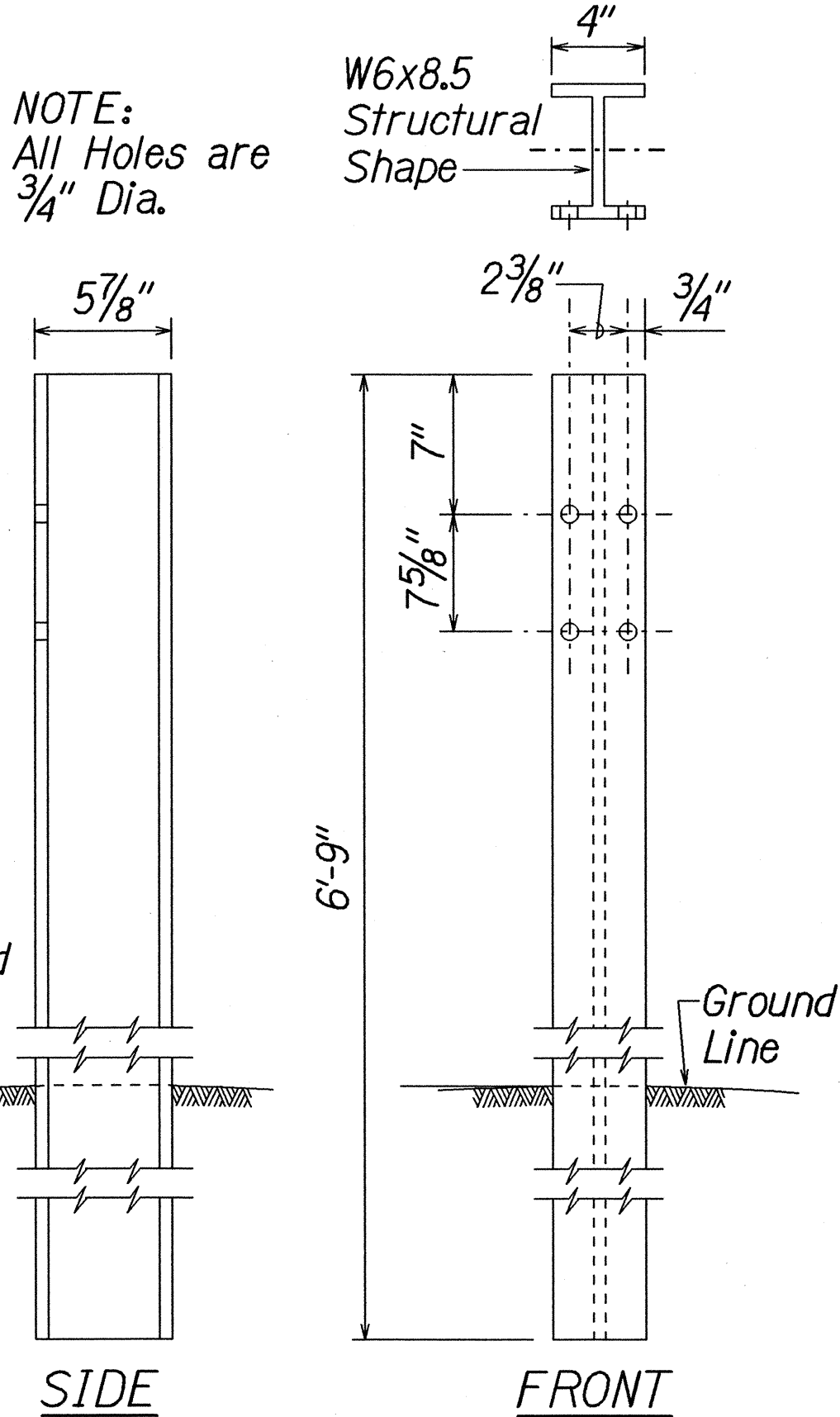


TRANSITION SECTION*

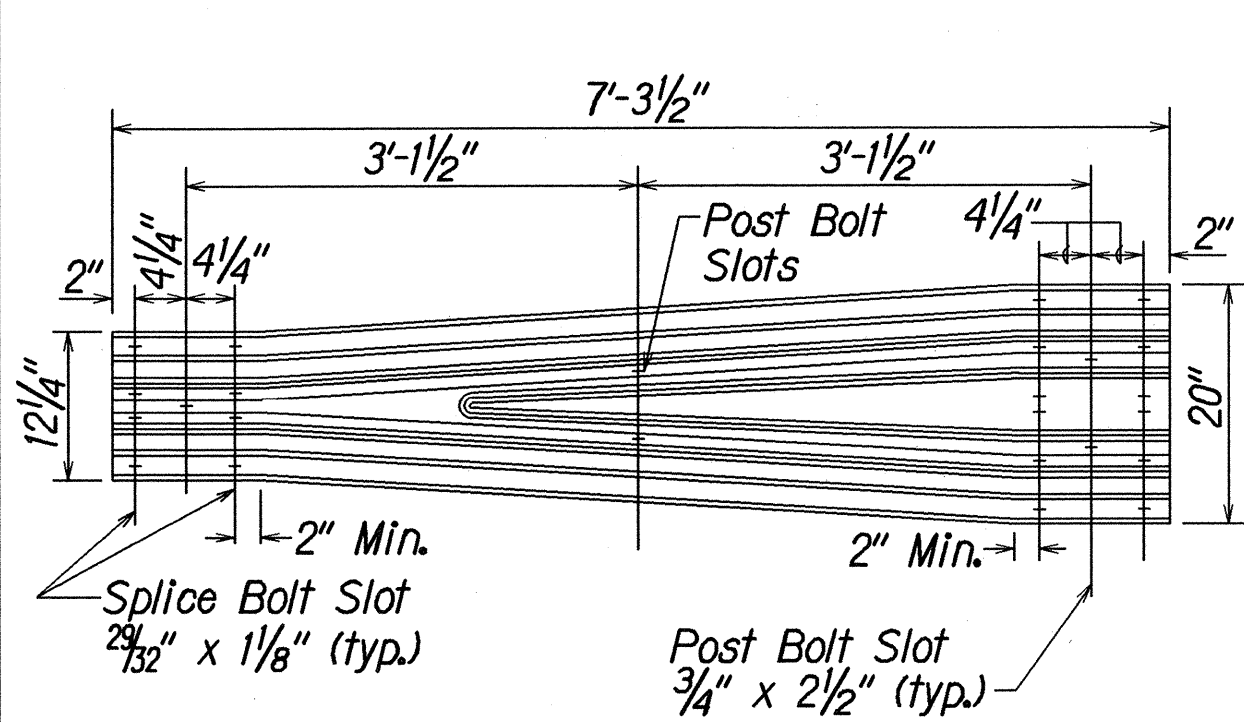
* Not to be used for Thrie Beam connection to structures.



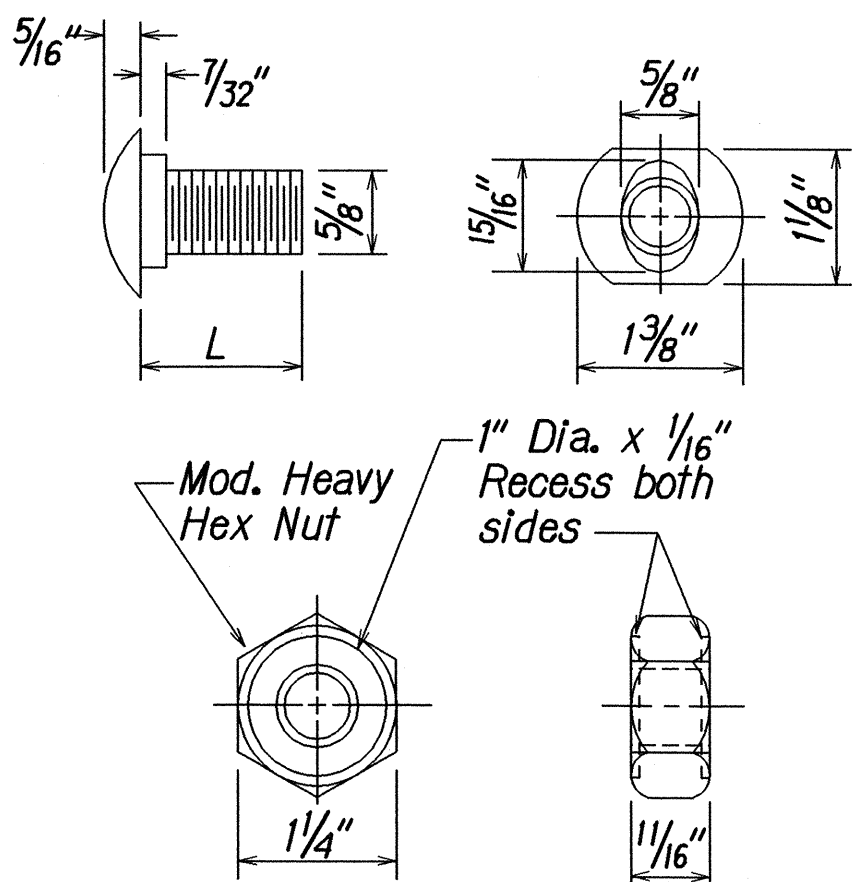
RAIL SPLICE



THRIE-BEAM STRONG POST FOR PLASTIC SPACER BLOCKS

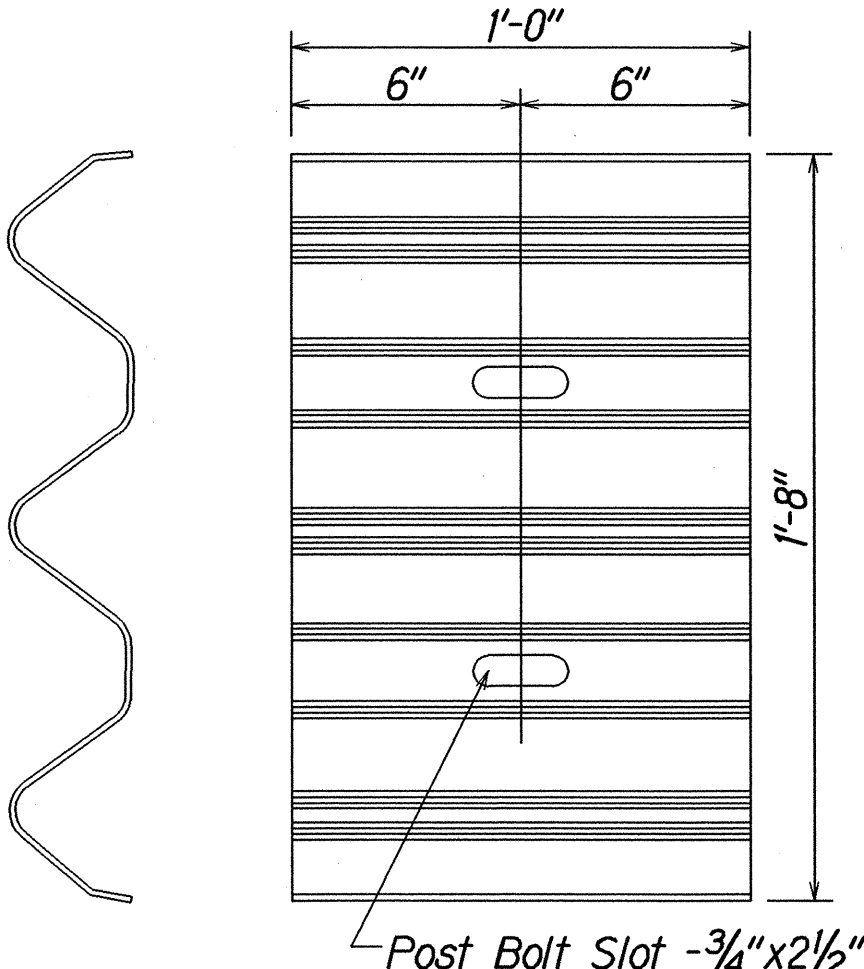


TRANSITION SECTION (RWT01b)



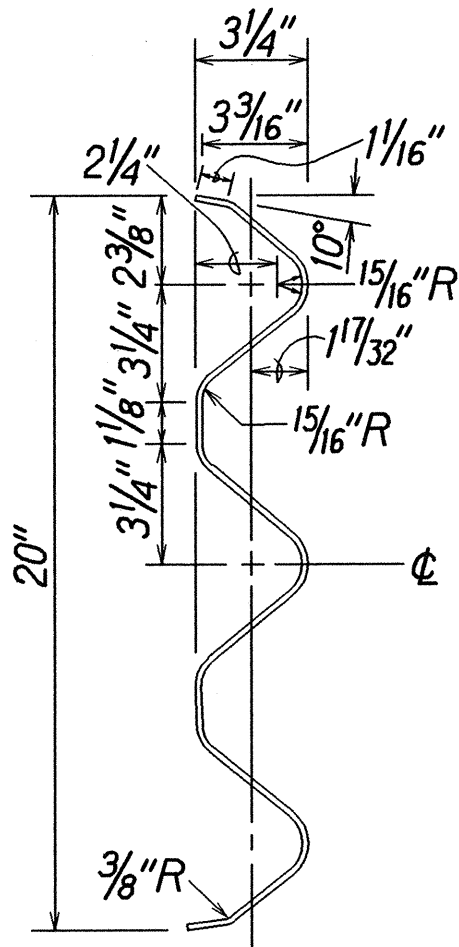
DESIGNATOR	L
FBB01	13/8"
FBB02	2"
FBB03	10"

GUARDRAIL BOLTS AND RECESSED NUT

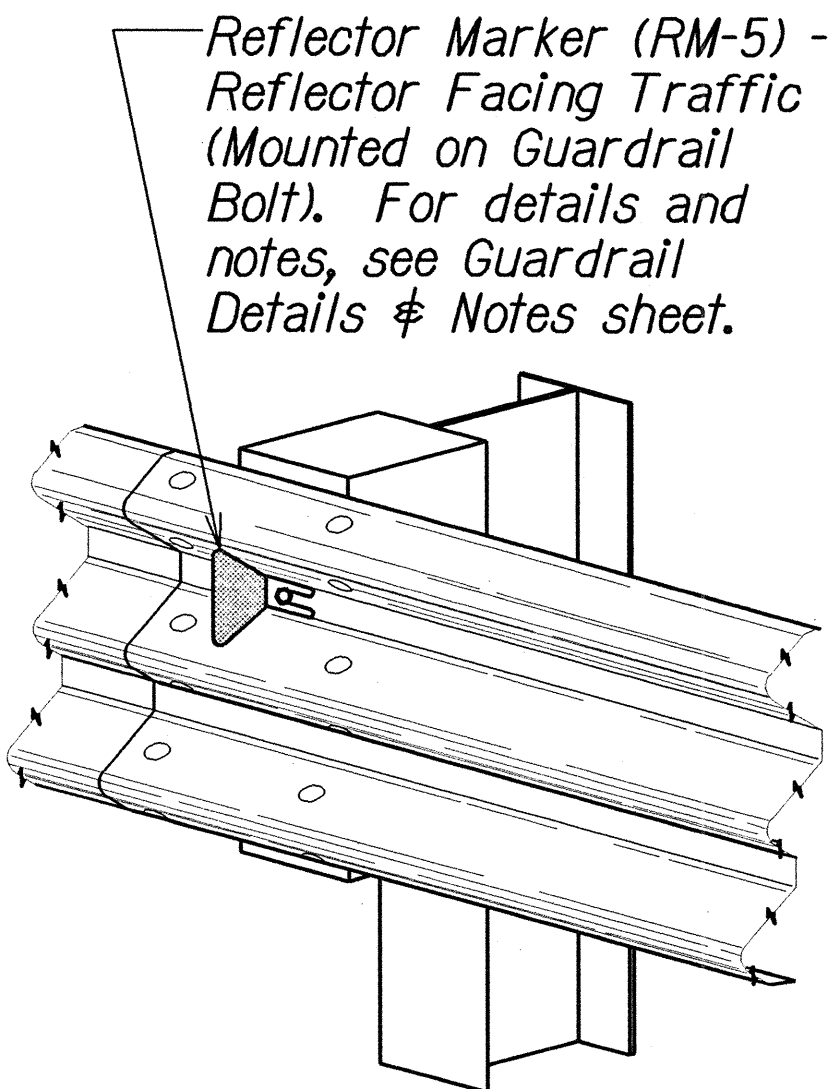


BACKUP PLATE (RTB01b)

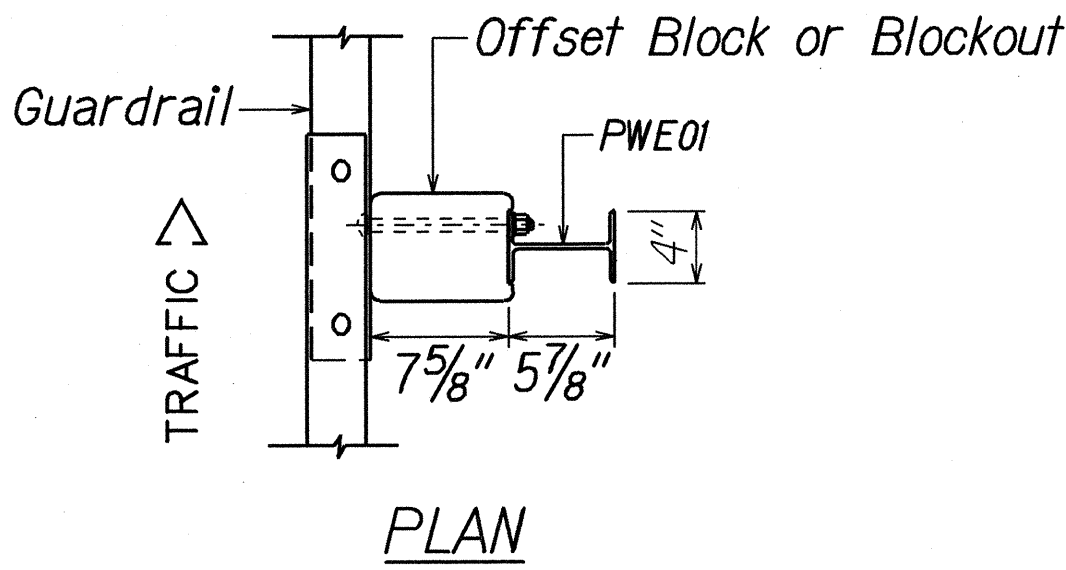
(Use at Posts where Splices do not occur)



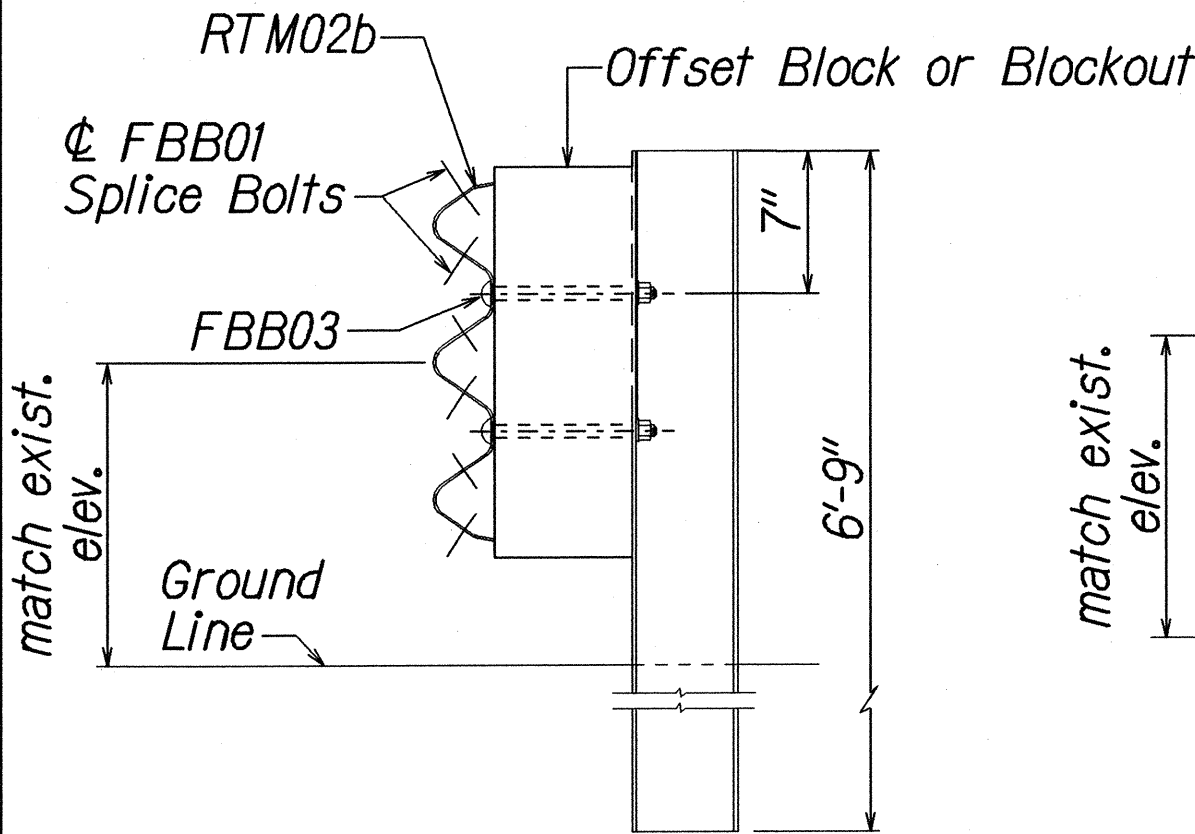
SECTION THRU RAIL ELEMENT (RTM02b)



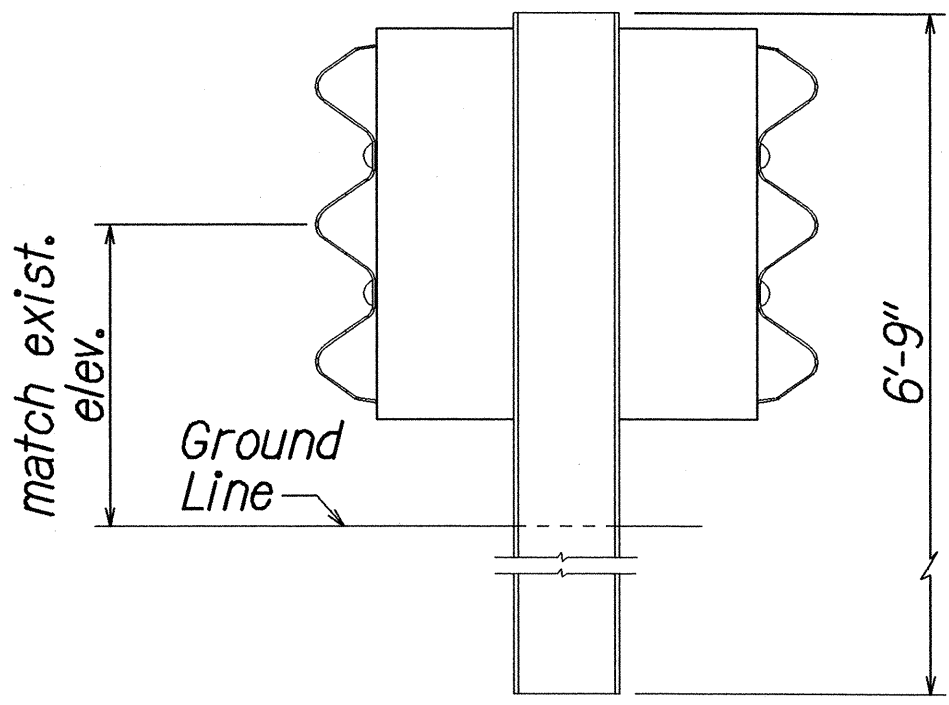
TYPICAL INSTALLATION OF REFLECTOR MARKER (RM-5)



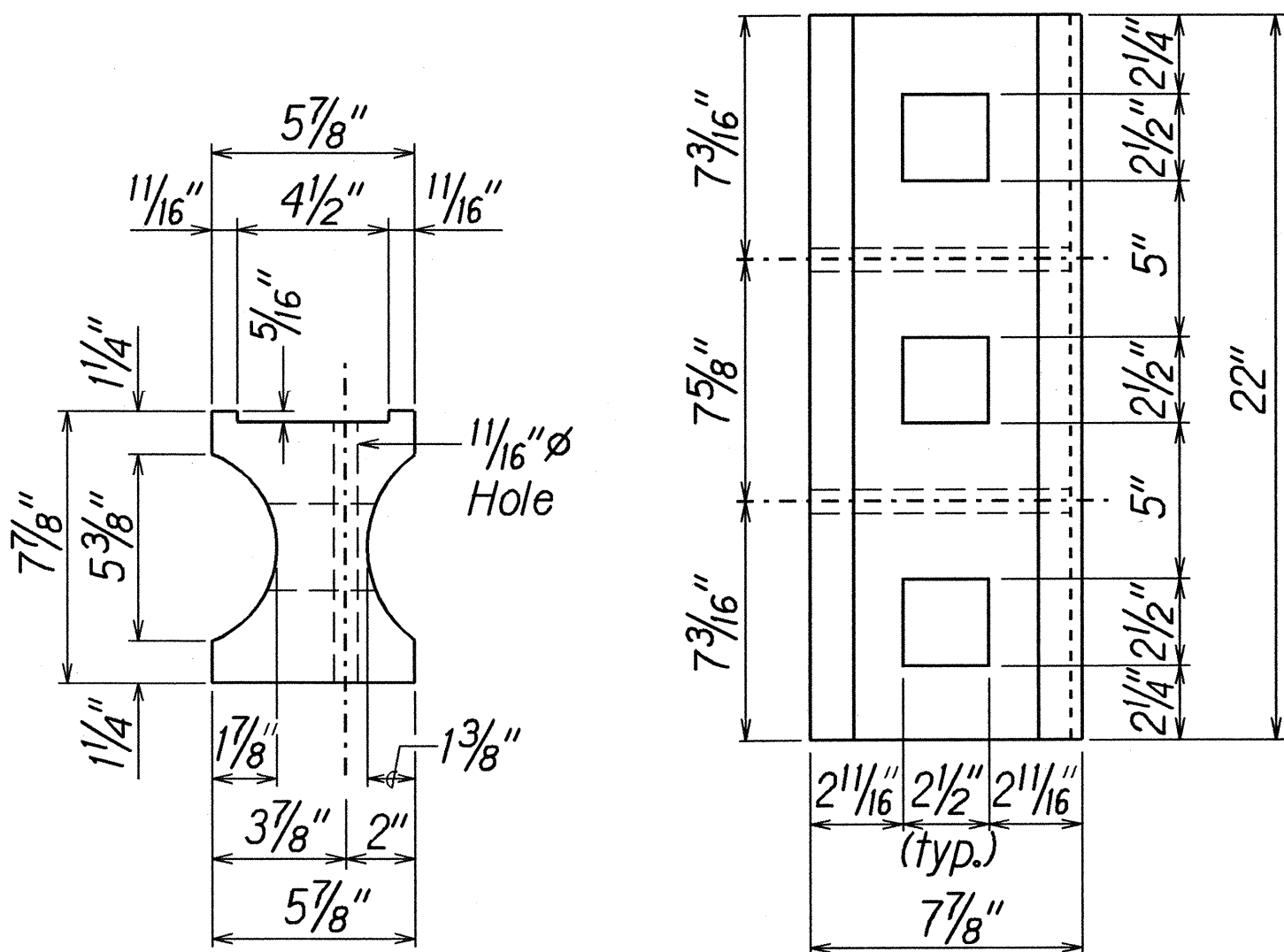
PLAN



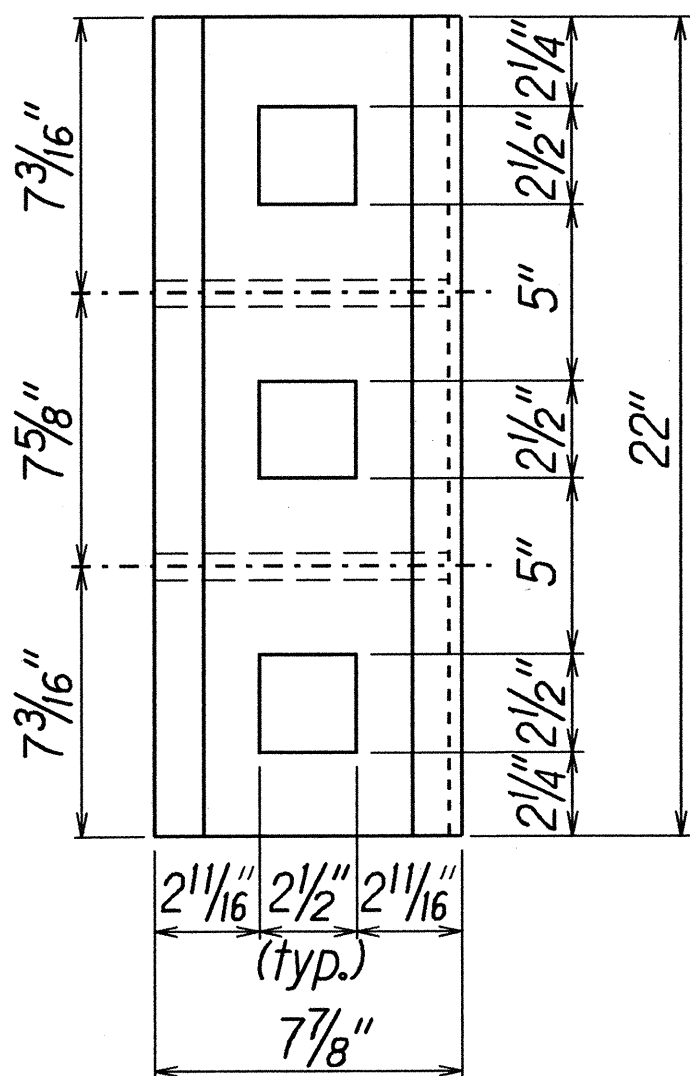
STRONG POST THRIE-BEAM GUARDRAIL (SGR09a)



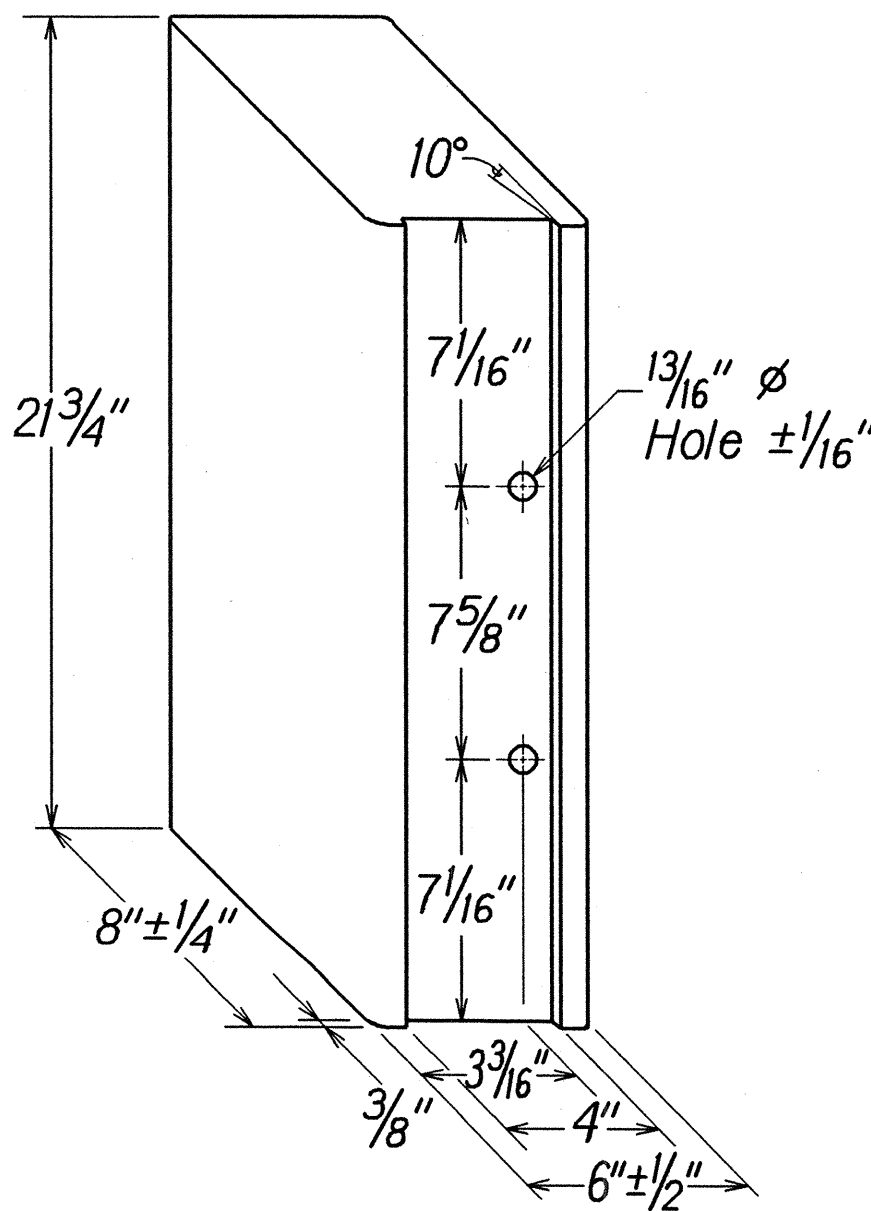
STRONG POST THRIE-BEAM MEDIAN GUARDRAIL (SGM09a)



MODIFIED 6X8X22 PLASTIC BLOCKOUT (TYPE I-THRIE)



SIDE



RECYCLED POLYETHYLENE THRIE-BEAM OFFSET BLOCK (TYPE II - THRIE)

- NOTES:
- Transition new guardrail as necessary to match the existing guardrail elevation. Transition length shall be 25'.
 - Cost for the transition from the existing Thrie Beam to the New Guardrail shall be considered incidental to the items of Section 606

6/17/03 Thrie Beam details added.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**STRONG POST
THRIE-BEAM GUARDRAIL**
KUHIO HIGHWAY RESURFACING
Vicinity of Kealia
Project No. 56B-01-01M

Scale: NTS Date: June, 2003

SHEET No. 1 OF 1 SHEETS