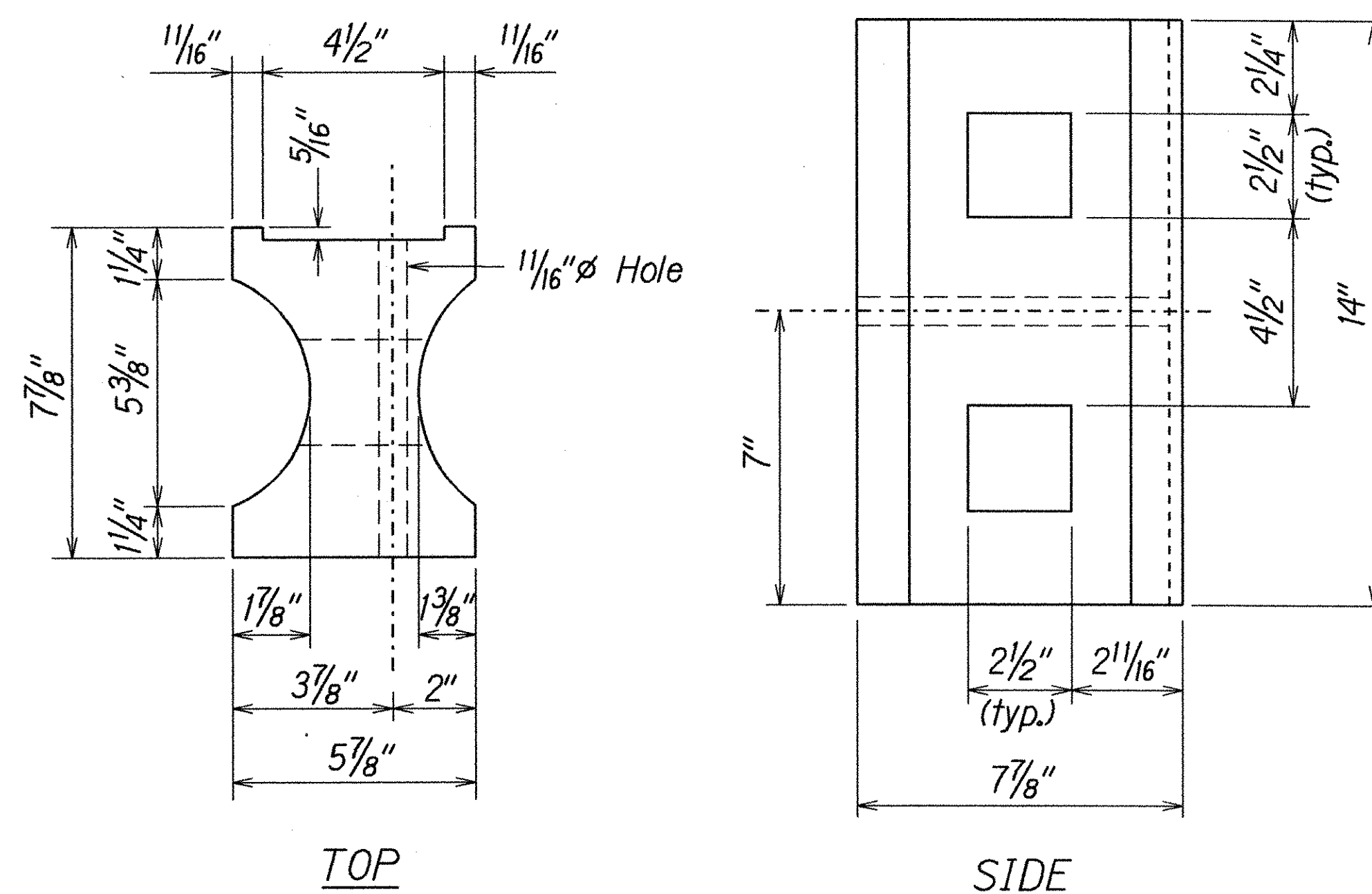
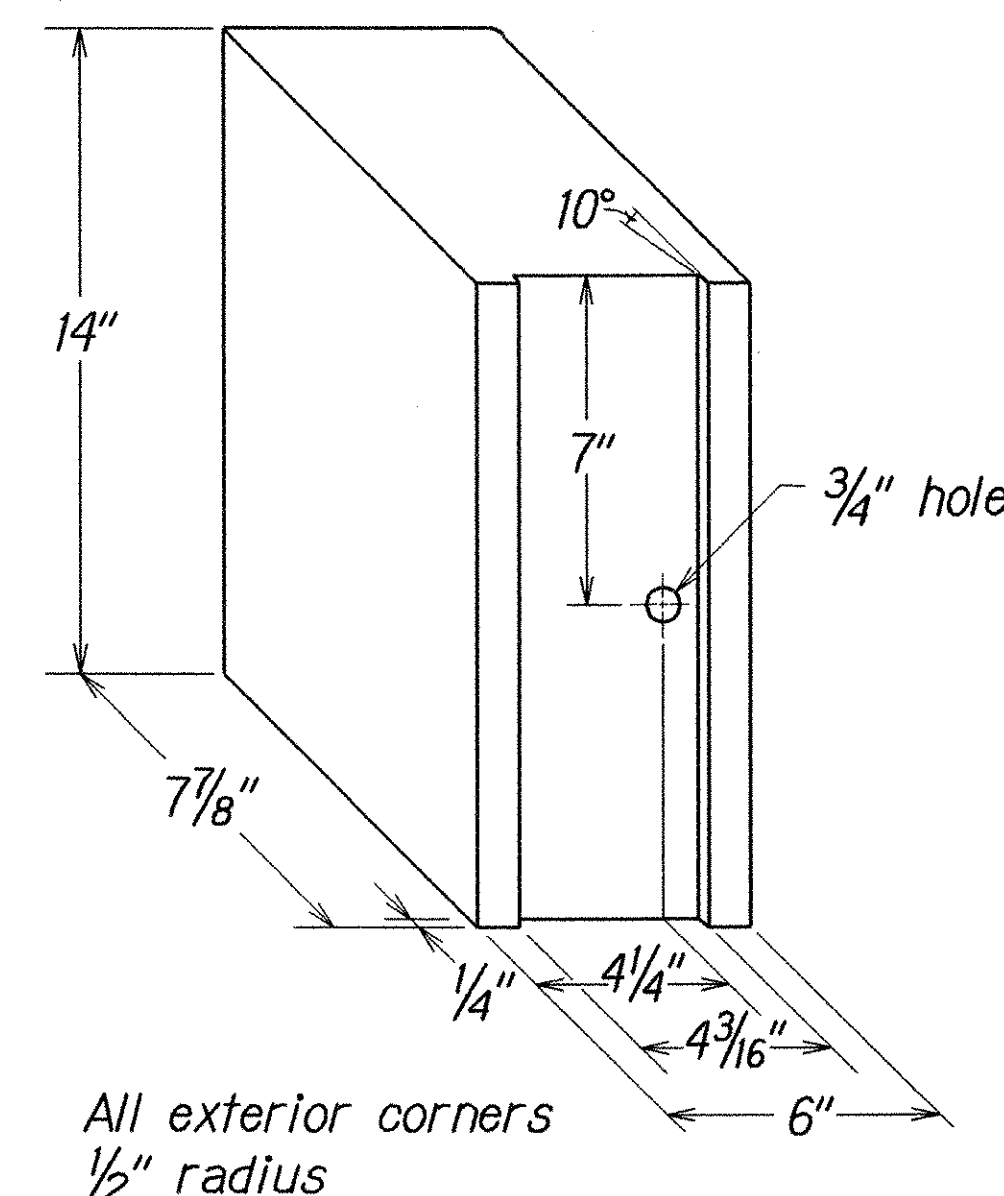


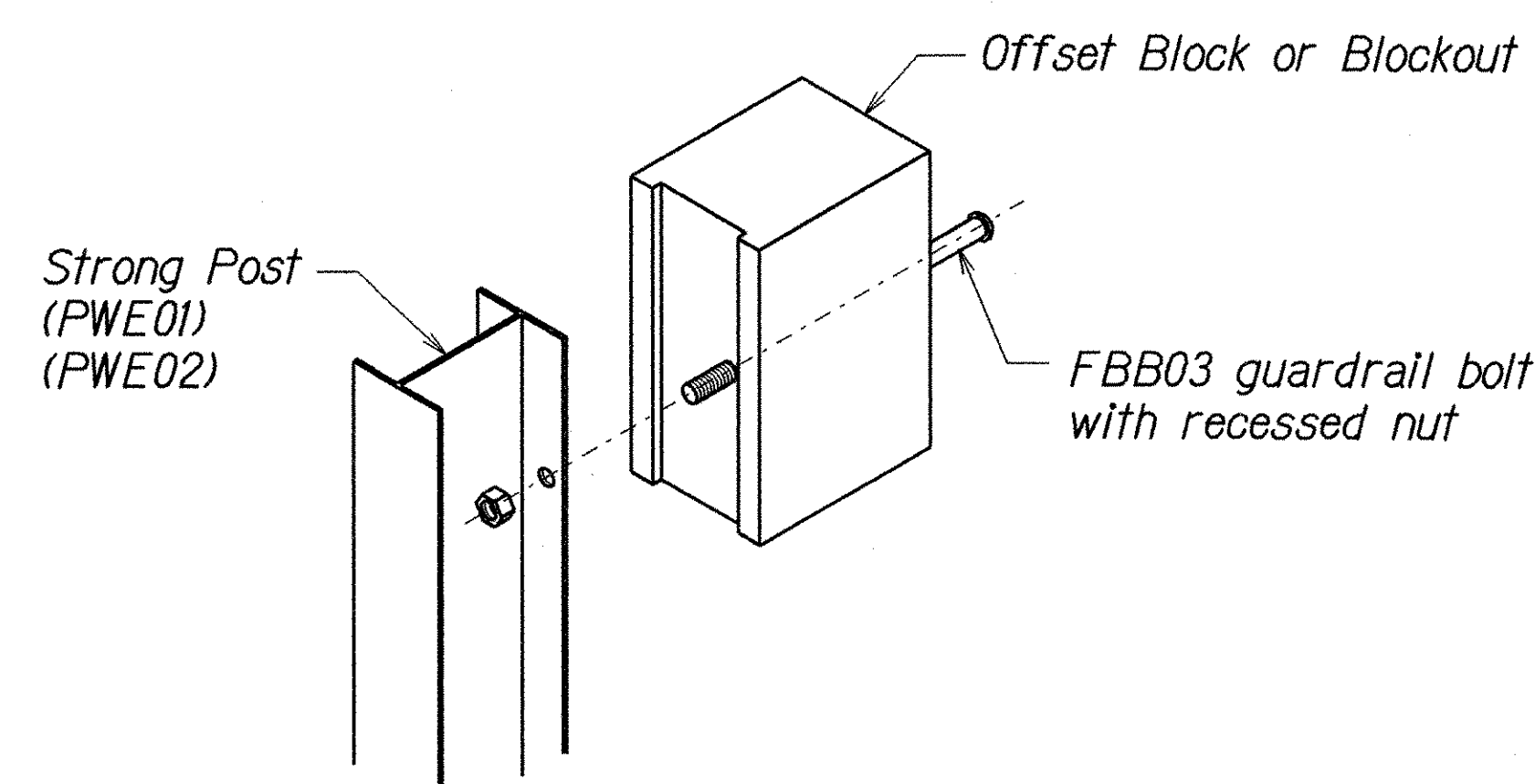
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
HAWAII	HAW.	HWY-M-01-06M	2006	28	30



TOP SIDE
RECYCLED PLASTIC BLOCKOUT (TYPE I)

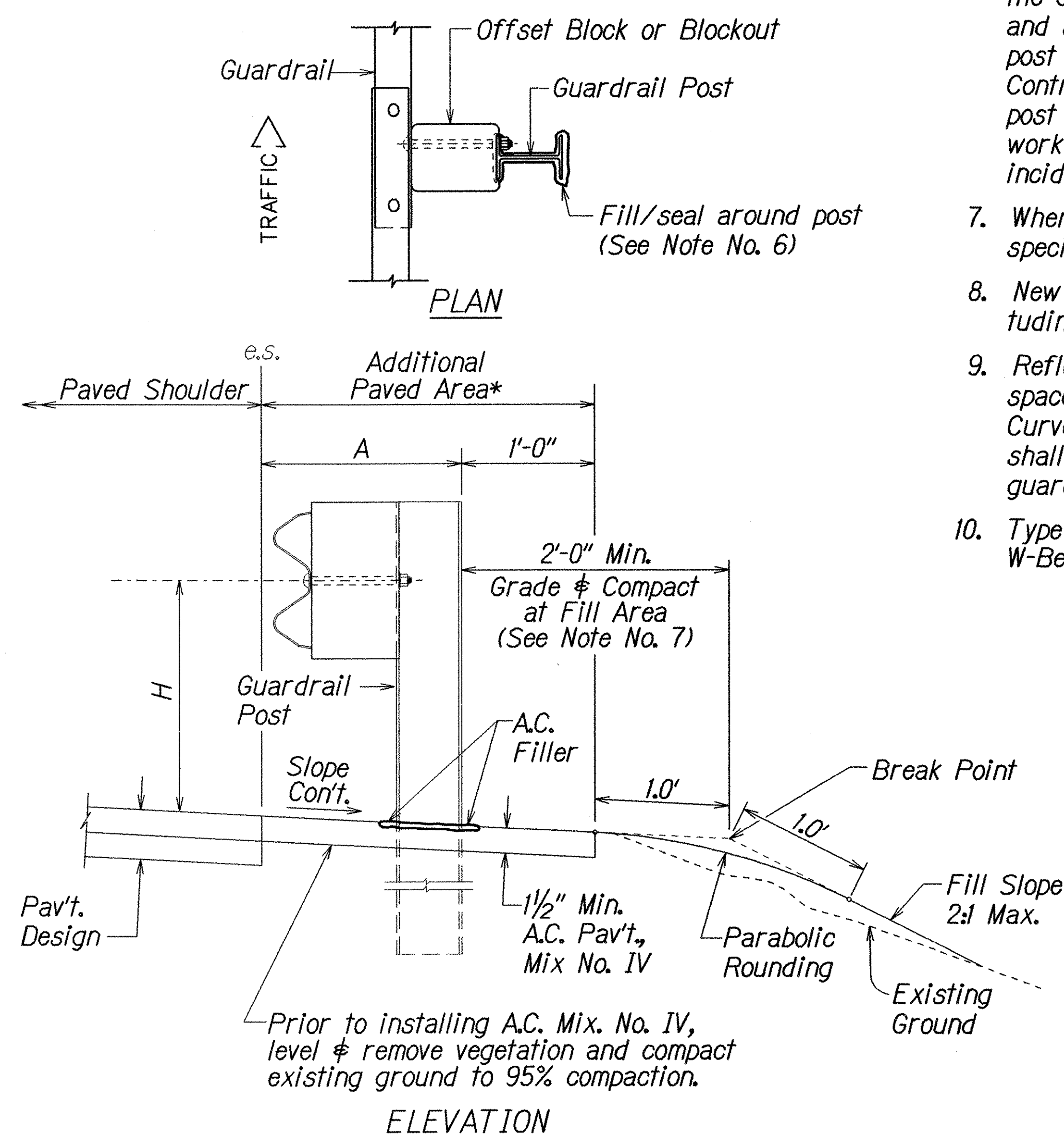


RECYCLED POLYETHYLENE
OFFSET BLOCK (TYPE II)

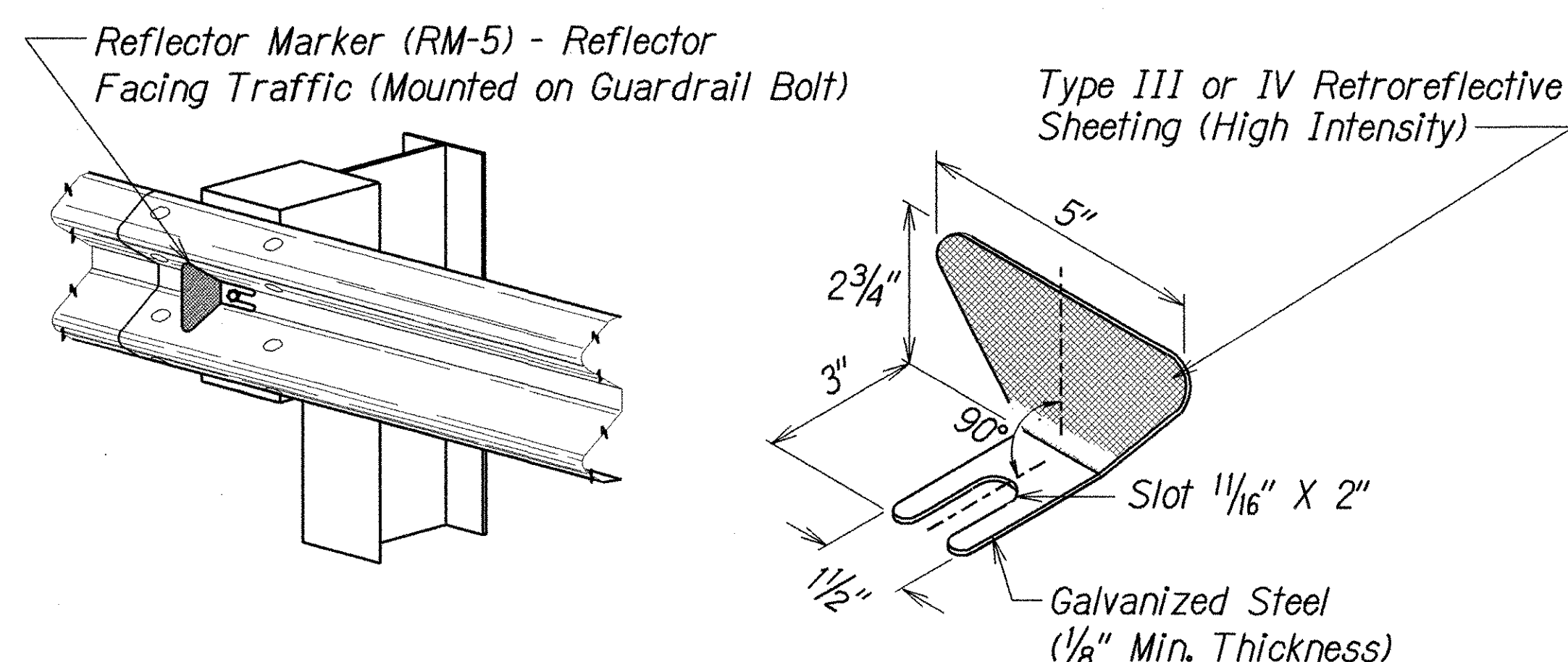


Exploded View
(Rail and washer not shown)

STEEL POST AND BLOCK DETAIL



TYPICAL GUARDRAIL INSTALLATION



REFLECTOR MARKER (RM-5) DETAIL AND TYPICAL 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. Spacing of RM-5's on Horizontal Curves shall comply with Table III-1 of the MUTCD. RM-5's shall not be installed on Terminal Sections. RM-5 on new guardrail shall be incidental to guardrail pay item.
10. Type G end terminals shall be paid for under Strong Post W-Beam Guardrail.

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

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY <u>X</u>	_____
	TRACED BY _____	_____
	DESIGNED BY <u>X</u>	_____
	QUANTITIES BY _____	_____
_____	CHECKED BY _____	_____

8/21/01	tdl.ruby/quardrail/te50rev.dan	(standard plan TE-50 r09/01/00)
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL DETAILS & NOTES

HALEKALA HIGHWAY RESURFACING
Hana Highway to North Firebreak Road and Vicinity of Old Halekala, (M.P. 5.7)

PIILANI HIGHWAY RESURFACING
Kilohana Drive to Wailea Ike Drive

KULA HIGHWAY RESURFACING
Old Halekala Highway to Vicinity of Haakakal Bridge

Project No. HWY-M-01-06M

Scale: NTS Date: October, 2005

SHEET No. / OF / SHEETS