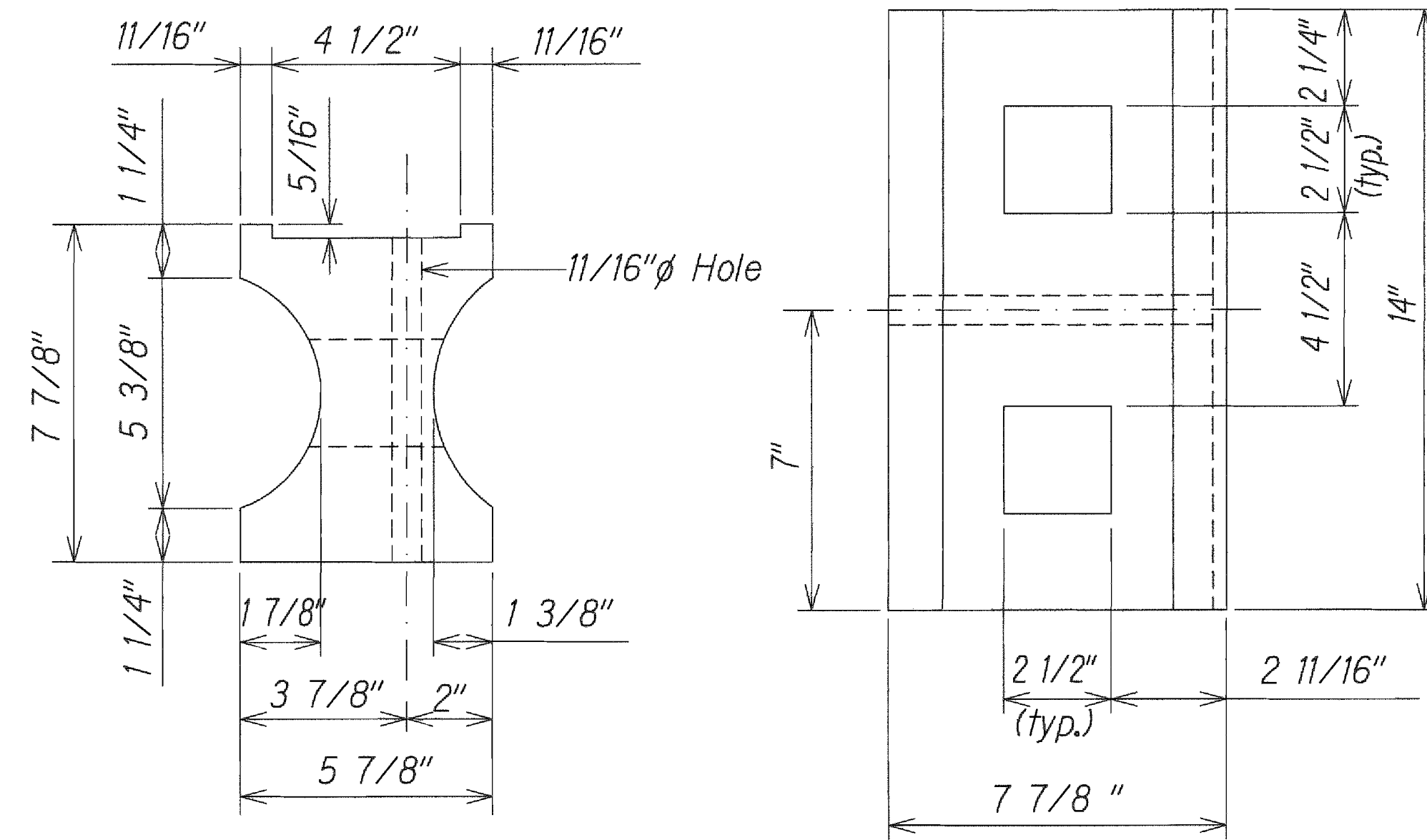
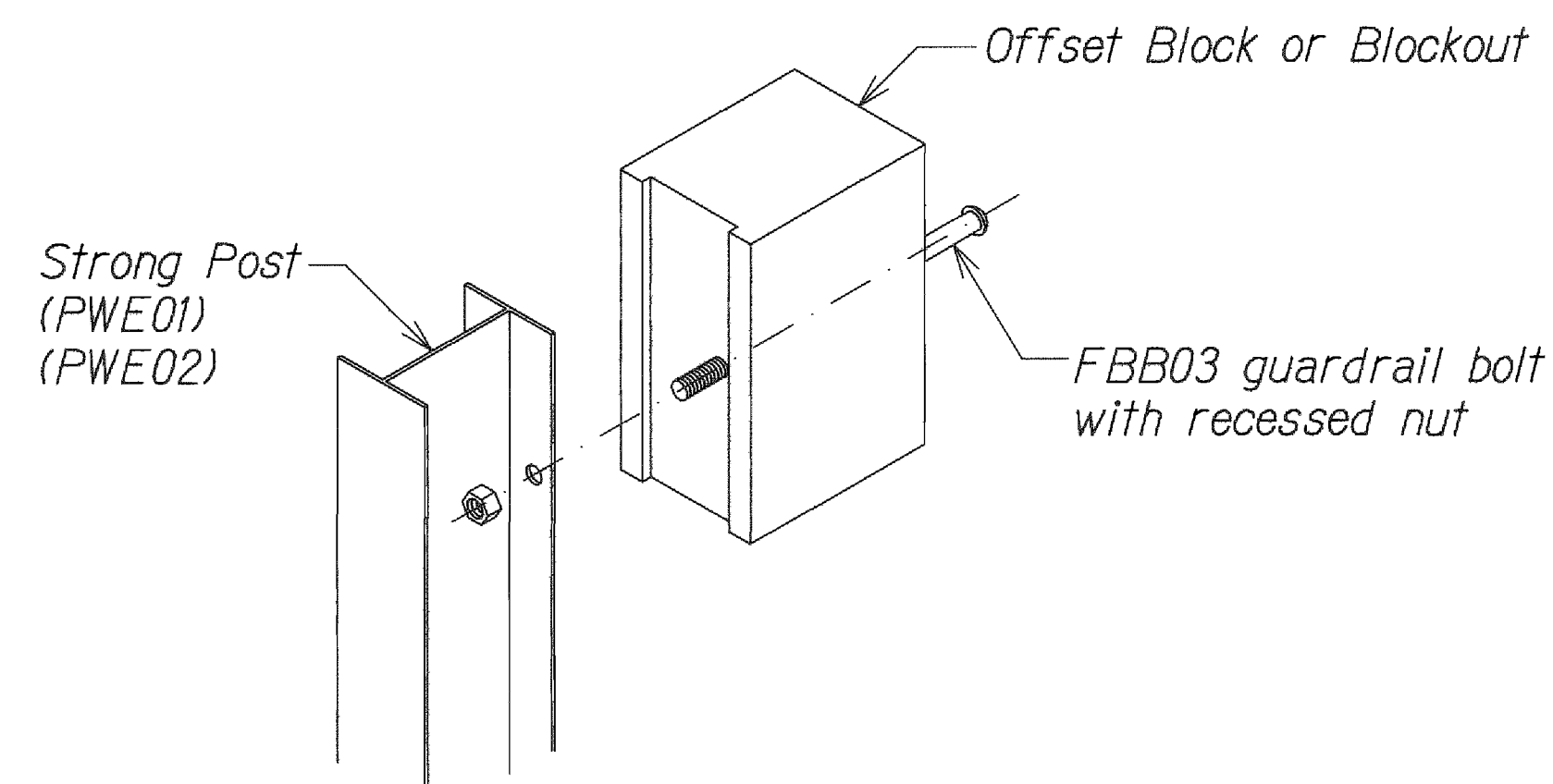


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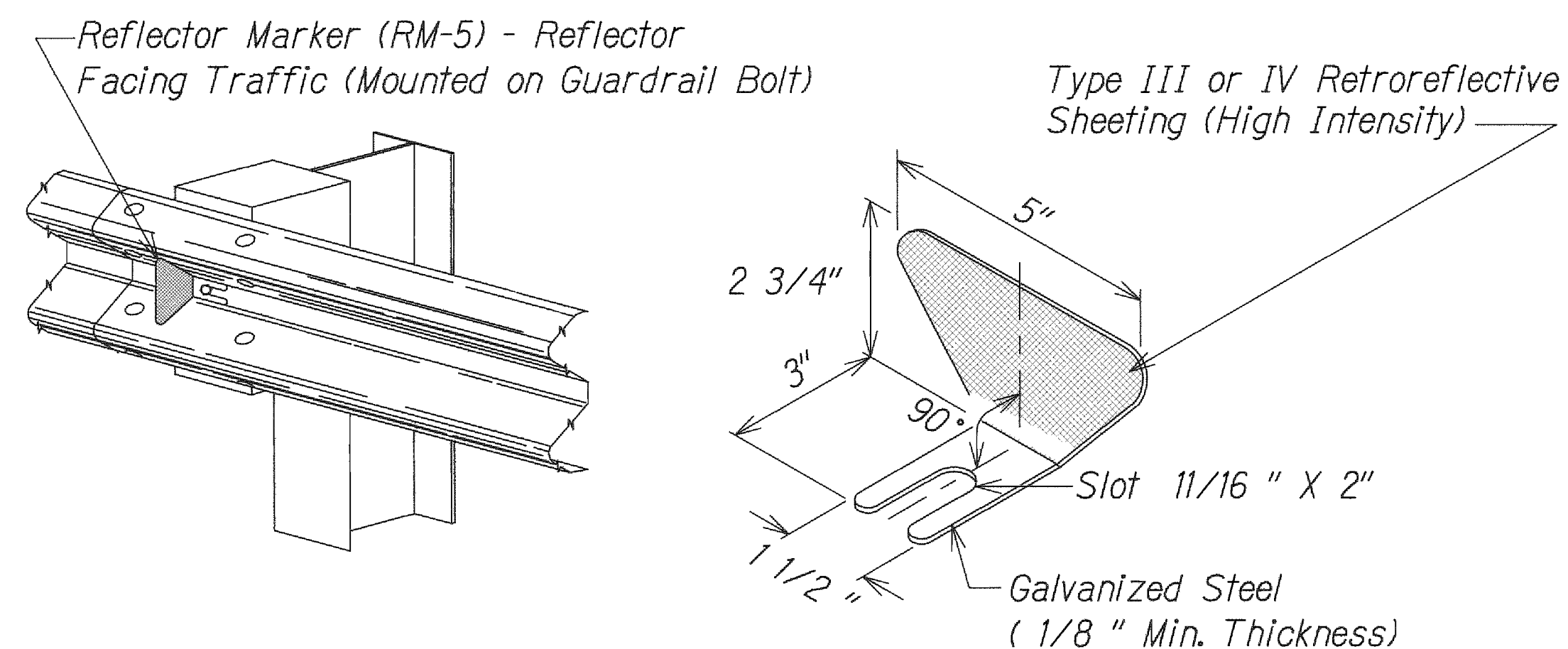


TOP SIDE  
RECYCLED PLASTIC BLOCKOUT (TYPE I)

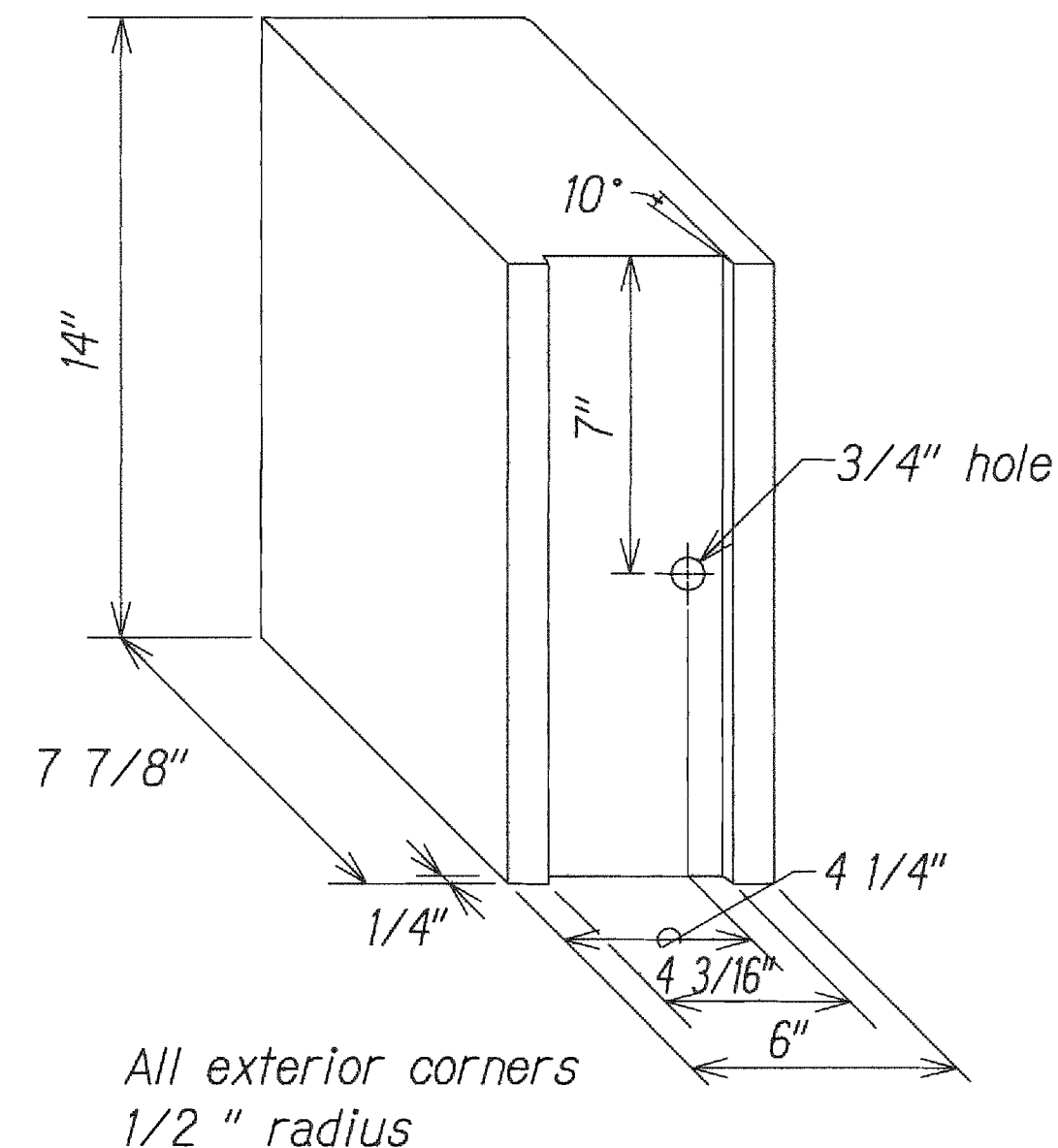


Exploded View  
(Rail and washer not shown)

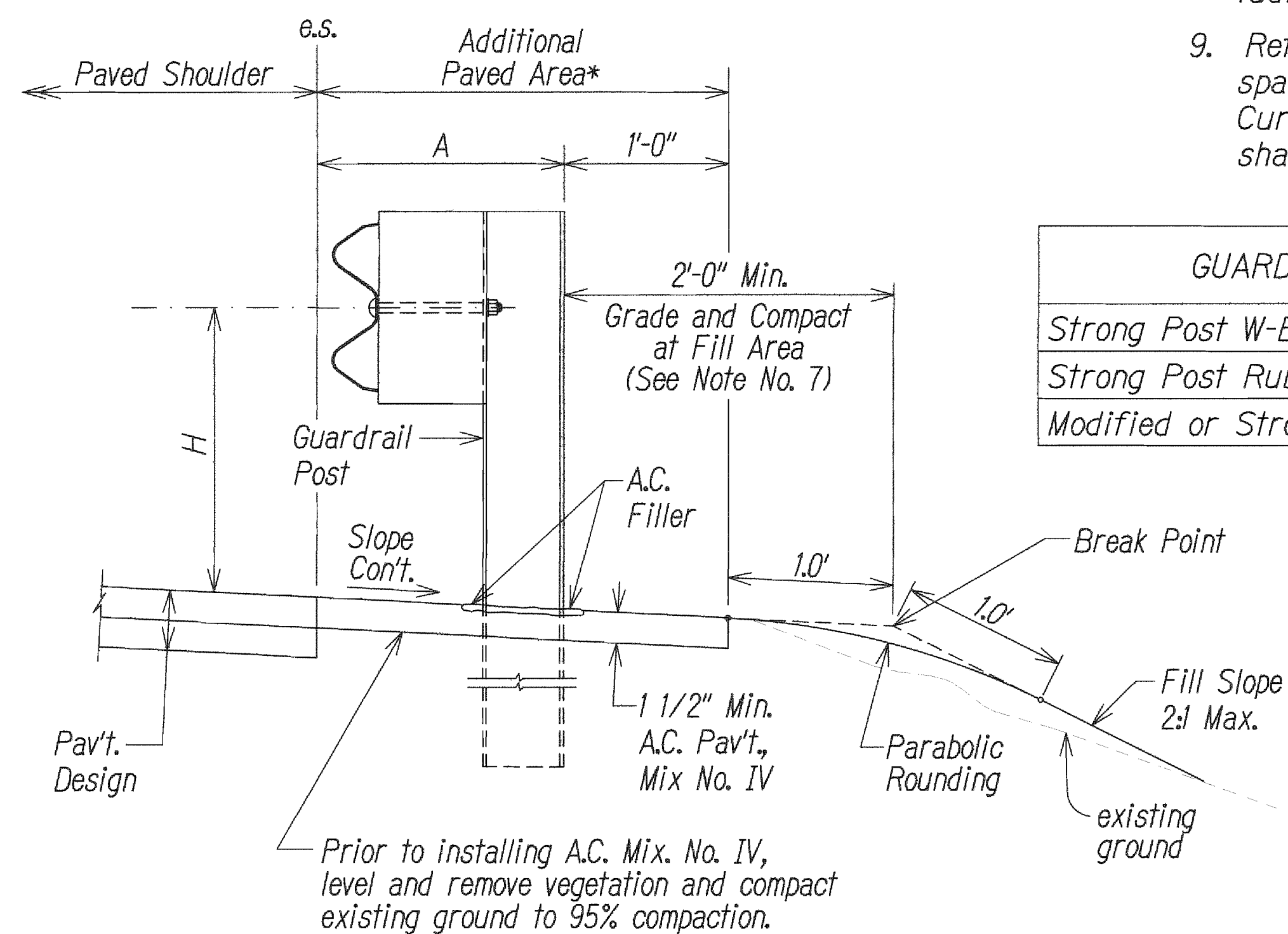
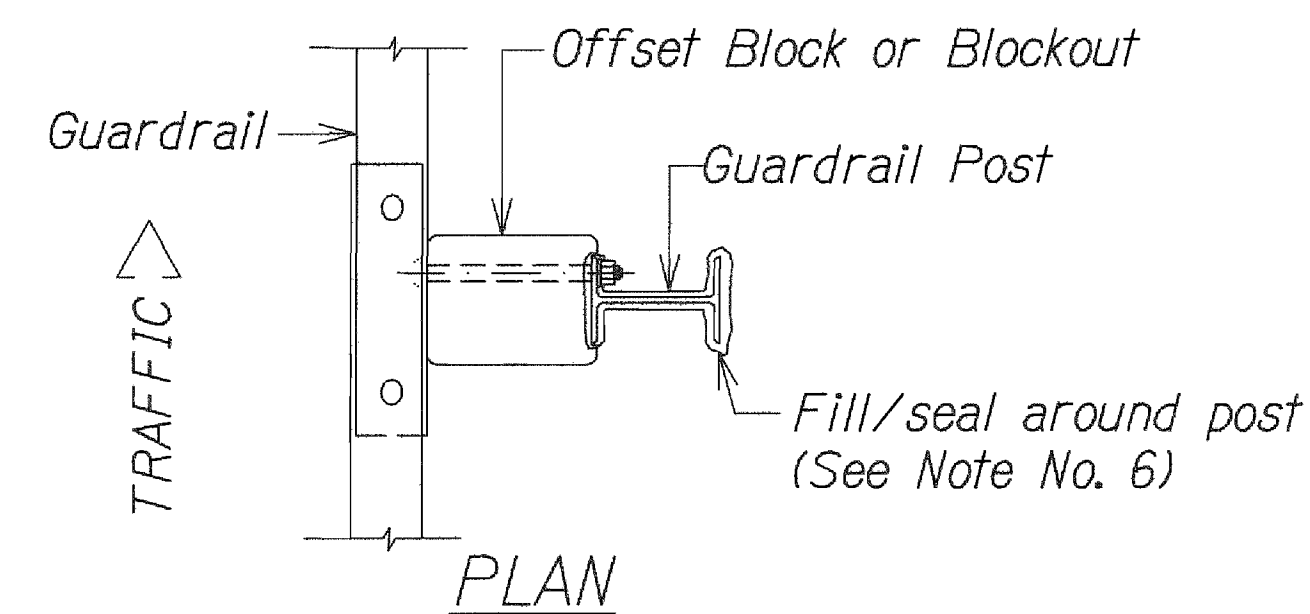
STEEL POST AND BLOCK DETAIL



### REFLECTOR MARKER (RM-5) DETAIL AND TYPICAL INSTALLATION



RECYCLED POLYETHYLENE  
OFFSET BLOCK (TYPE II)



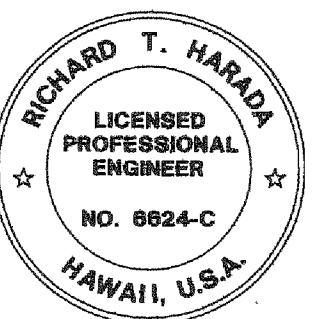
ELEVATION

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. 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.

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"



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.

Richard T. Hunt APRIL 30, 2014  
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

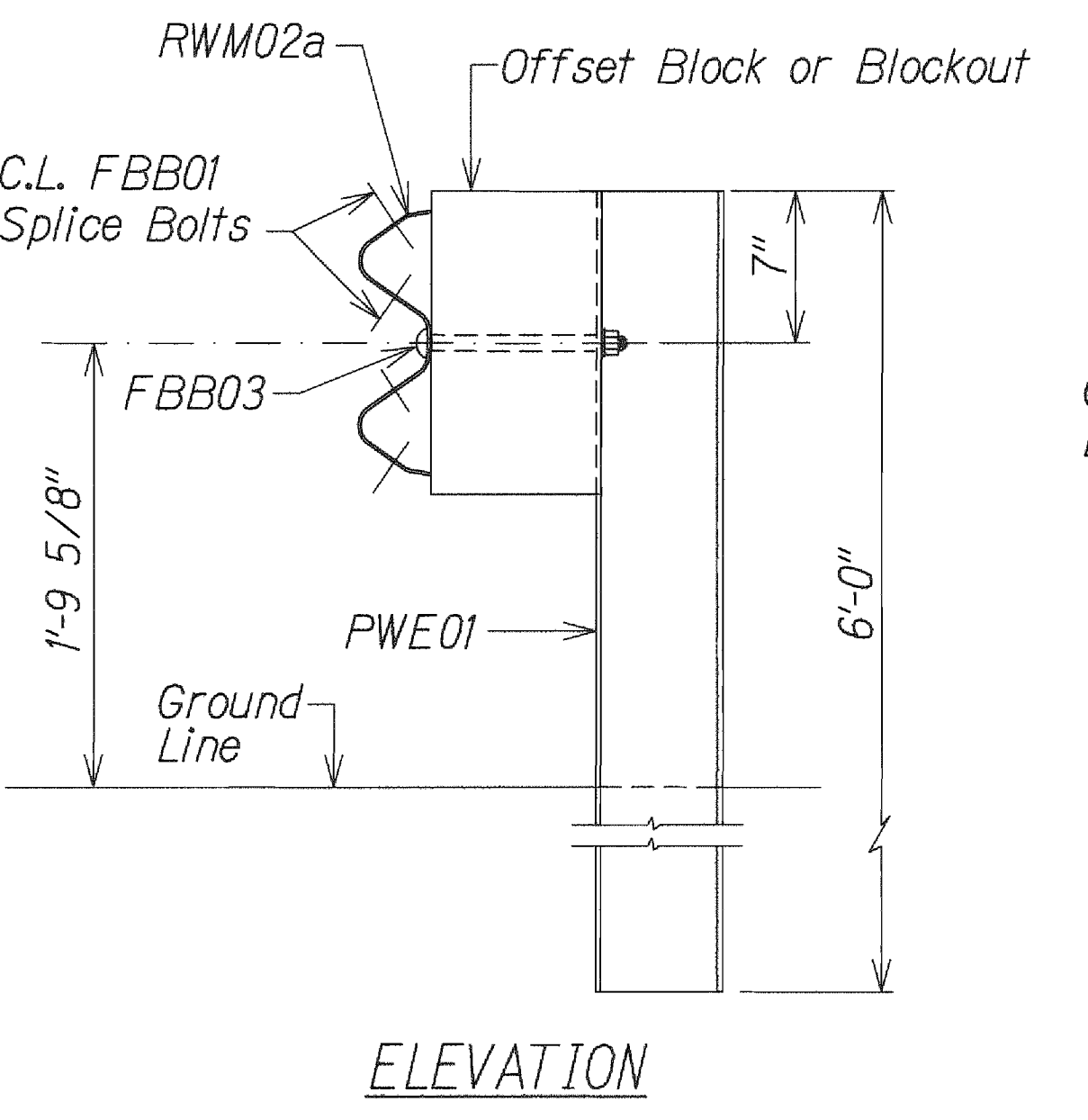
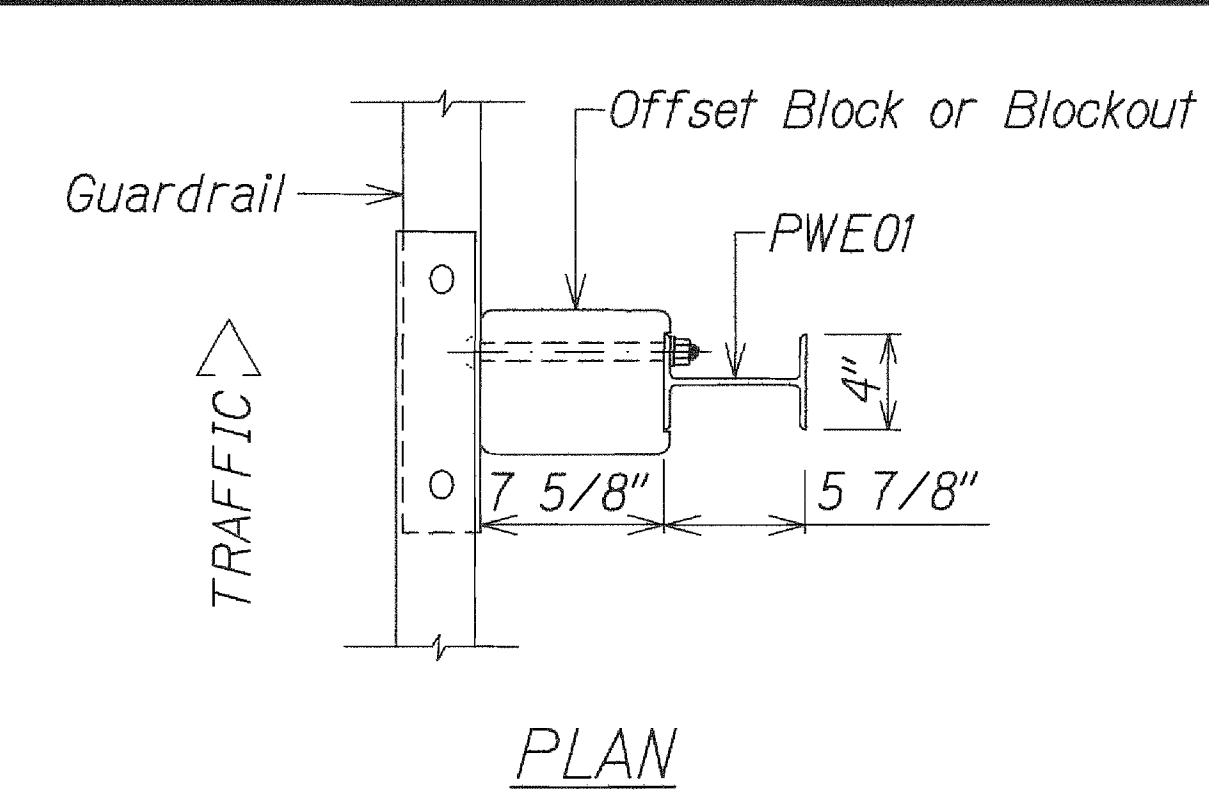
GUARDRAIL DETAILS  
AND NOTES

WAIHEHU BEACH ROAD  
REHABILITATION OF IAO STREAM BRIDGE  
Federal Aid Project No. BR-STP-3400(5)

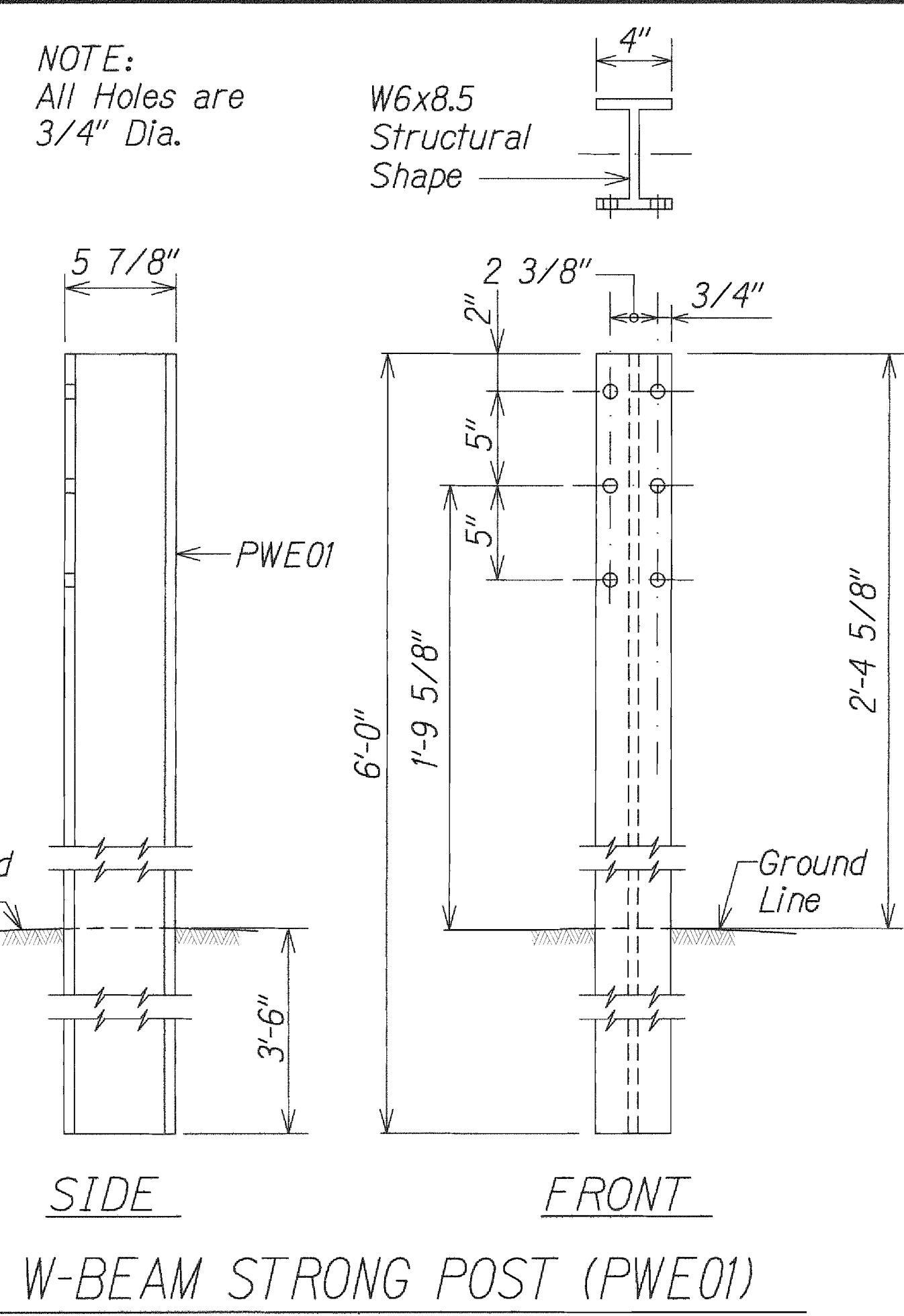
Date: October 2012

SHEET No. *GR4* OF *10* SHEETS

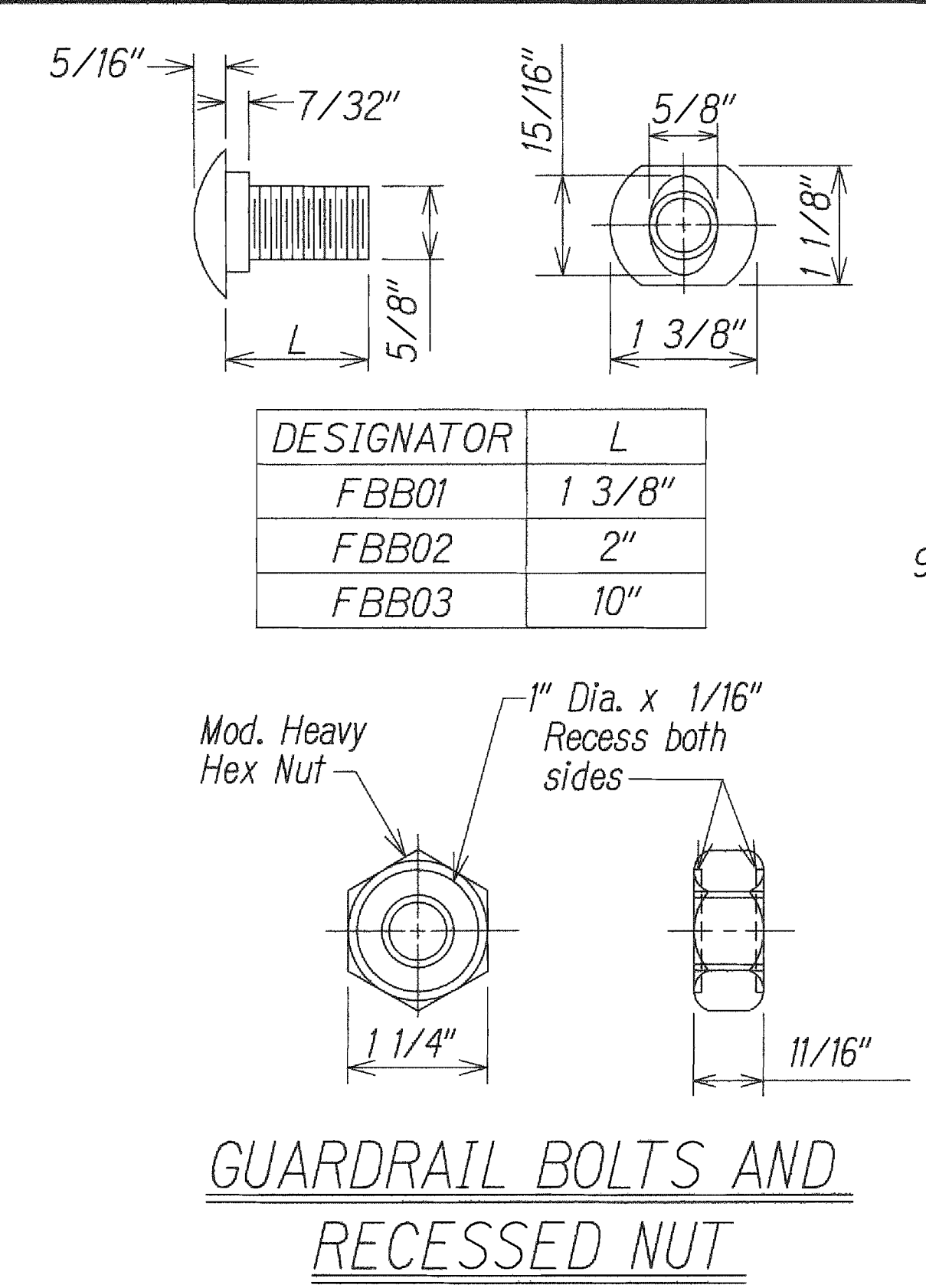
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-STP-3400(5)	2012	23	108



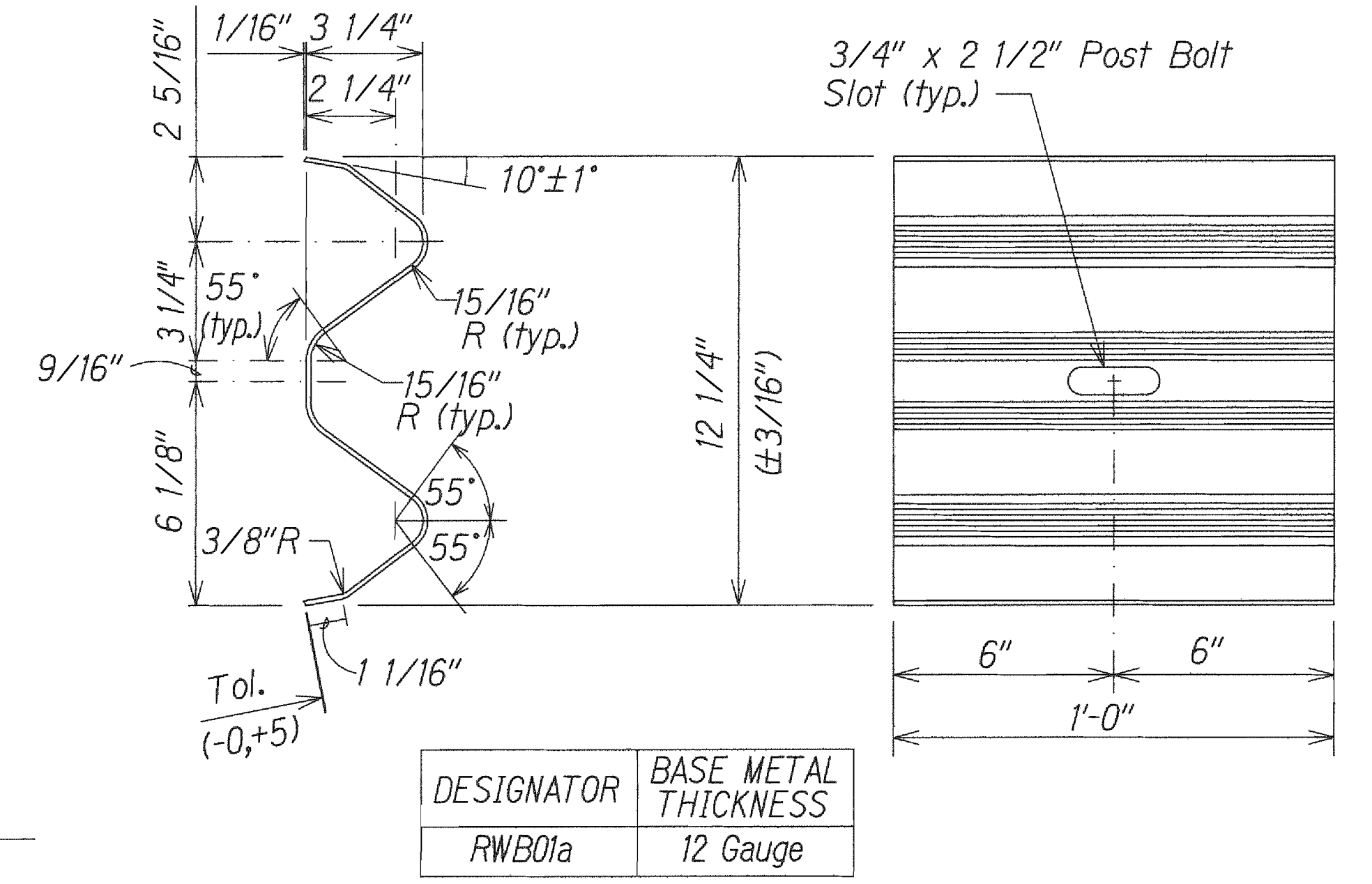
**STRONG POST W-BEAM GUARDRAIL (SGR04a)**



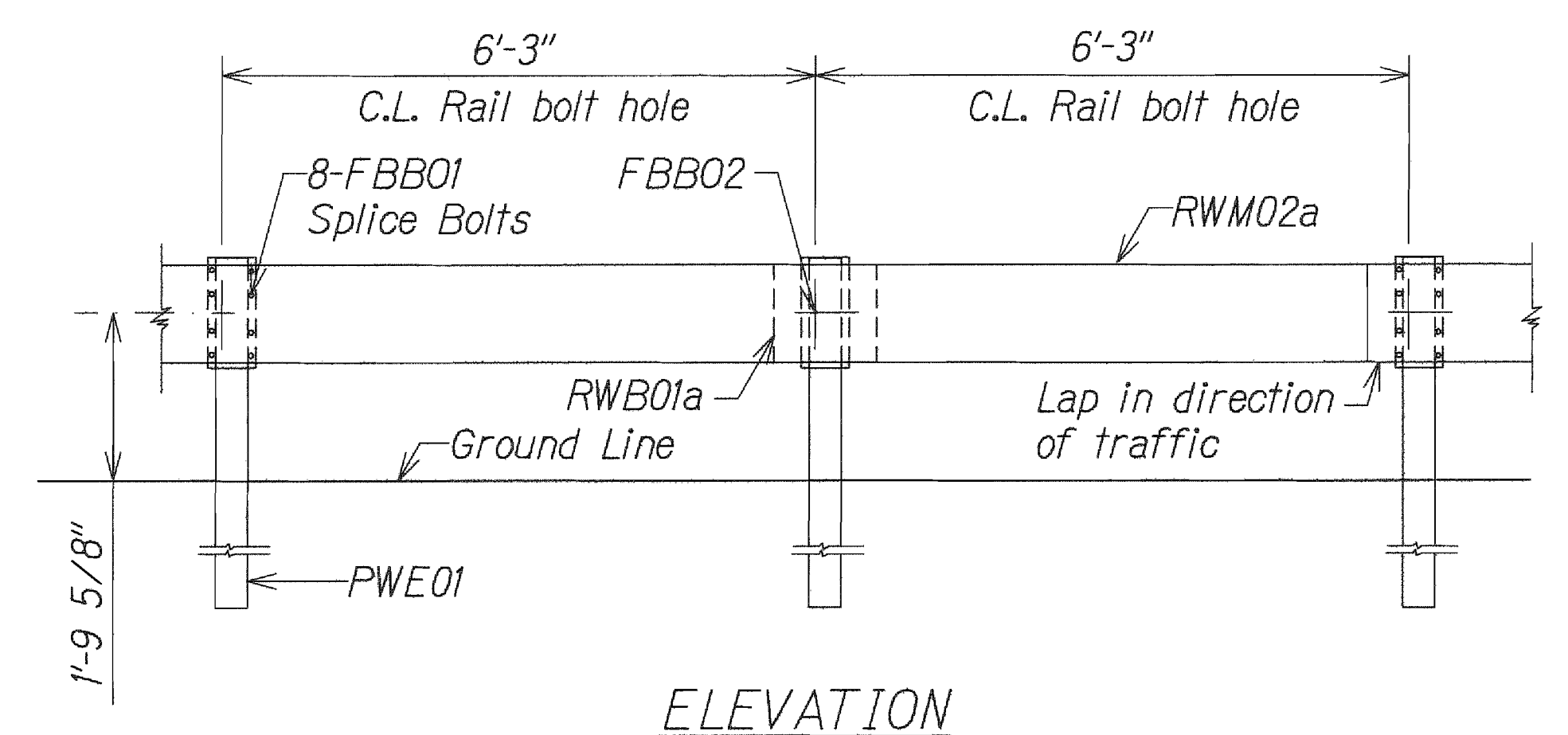
**W-BEAM STRONG POST (PWE01)**



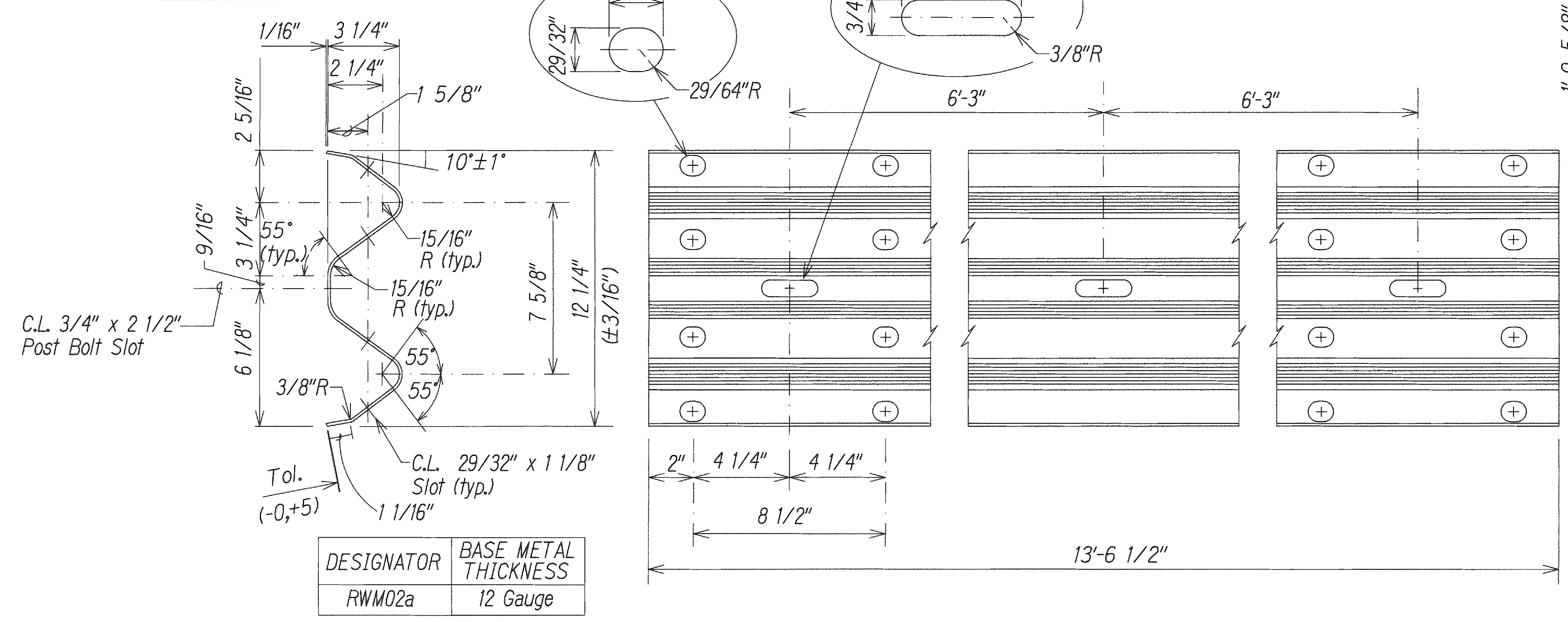
**GUARDRAIL BOLTS AND RECESSED NUT**



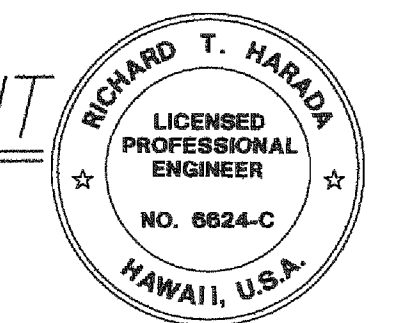
**W-BEAM BACK-UP-PLATE (RWB01a)**



**STRONG POST W-BEAM GUARDRAIL WITH RECYCLED OFFSET BLOCK OR PLASTIC BLOCKOUT**



**2 SPACE W-BEAM GUARDRAIL (RWM02a)**



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
WILSON OKAMOTO CORPORATION  
APR 30, 2014  
LIC. EXP. DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STRONG POST W-BEAM GUARDRAIL DETAILS**

WAIHEHU BEACH ROAD  
REHABILITATION OF IAO STREAM BRIDGE  
Federal Aid Project No. BR-STP-3400(5)

Date: October 2012

SHEET No. GR5 OF 10 SHEETS

DESIGNED BY	DATE
CHECKED BY	
NOTED BY	
QUANTITIES BY	
NO.	

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