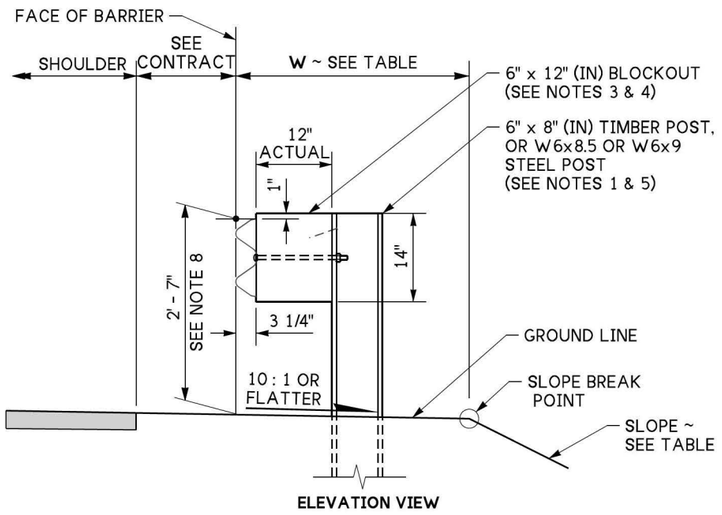
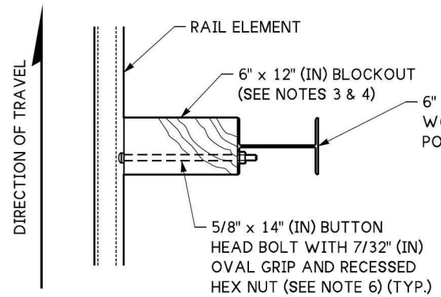
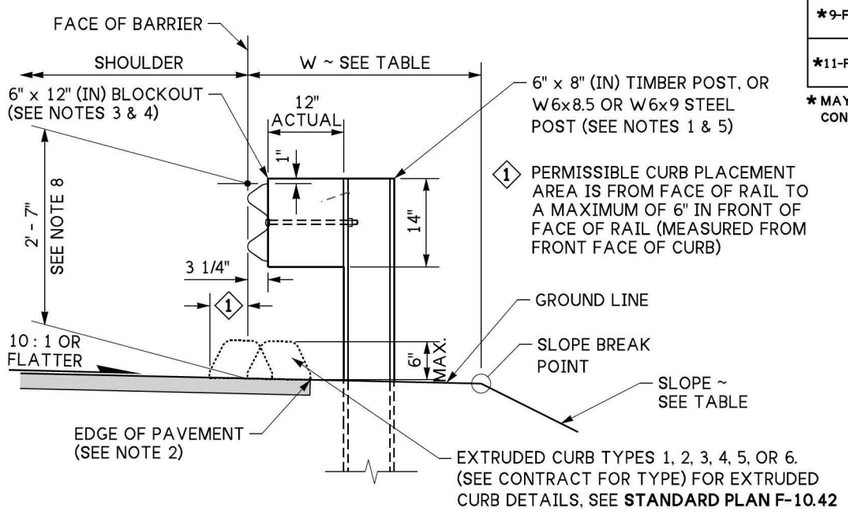


ELEVATION VIEW

TYPICAL SECTION ~ WITHOUT CURB

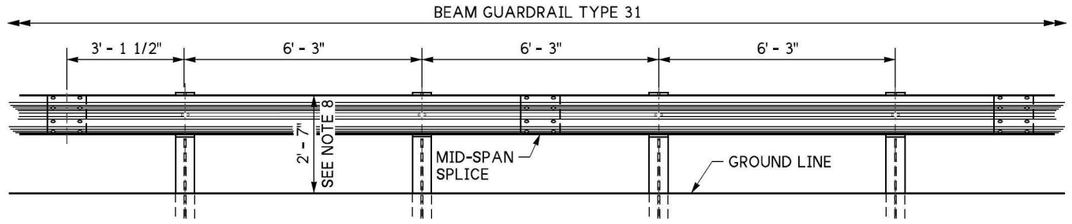


PLAN VIEW

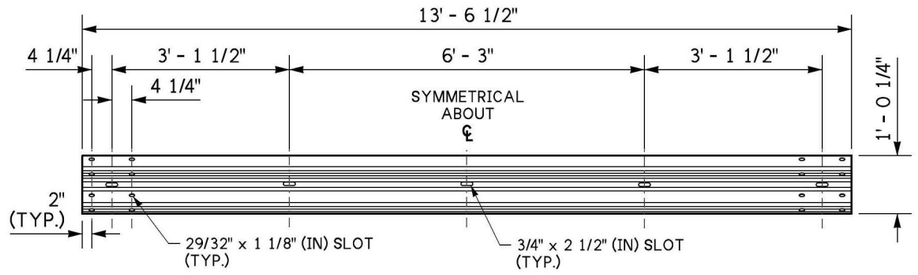


ELEVATION VIEW

TYPICAL SECTION ~ WITH CURB



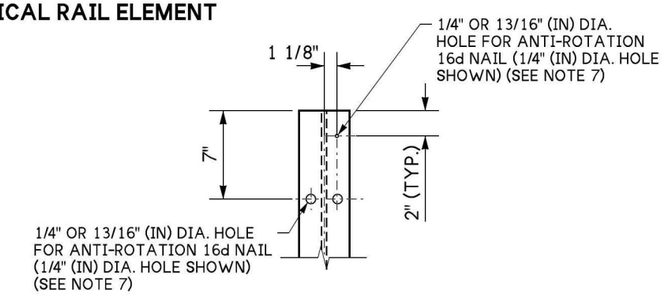
TYPICAL ELEVATION



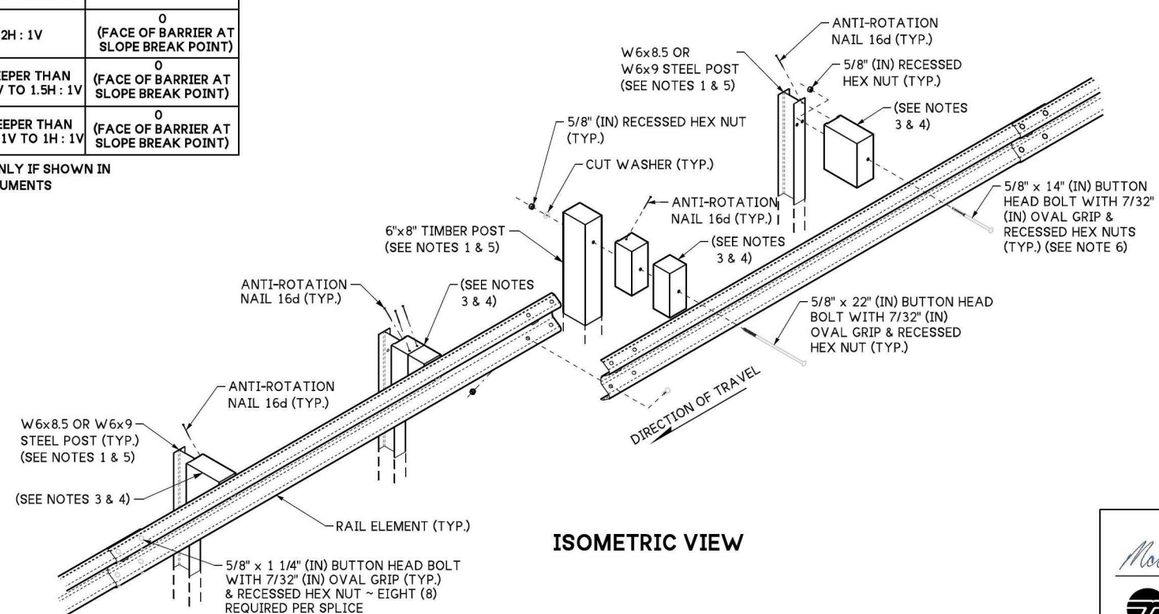
TYPICAL RAIL ELEMENT

SLOPE/EMBANKMENT TABLE FOR 6', 8', 9', AND 11' LONG POSTS		
POST LENGTH	SLOPE	W (FT)
6-FOOT	2H : 1V OR FLATTER	2.5 MIN.
6-FOOT	1H : 1V OR FLATTER	4.0 MIN.
8-FOOT	STEEPER THAN 2H : 1V TO 1H : 1V	2.5 MIN.
8-FOOT	2H : 1V	0 (FACE OF BARRIER AT SLOPE BREAK POINT)
*9-FOOT	STEEPER THAN 2H : 1V TO 1.5H : 1V	0 (FACE OF BARRIER AT SLOPE BREAK POINT)
*11-FOOT	STEEPER THAN 1.5H : 1V TO 1H : 1V	0 (FACE OF BARRIER AT SLOPE BREAK POINT)

* MAY BE USED ONLY IF SHOWN IN CONTRACT DOCUMENTS



STEEL POST



ISOMETRIC VIEW

NOTES

1. Refer to **Standard Plan C-1b** for additional details not shown on this plan.
2. Extend shoulder pavement to provide a base for the extruded curb. See Contract Plans for exceptions to distances shown.
3. Use a single block or combination of blocks (no more than two (2) to achieve the actual 12" (in.) offset. See **Standard Specification Section 9-16.3(2)**. Wood blocks shall be secured to the posts with anti-rotation nails. If combination blocks are used, the adjacent blocks shall be toenailed with two 16d galvanized nails to prevent block rotation.
4. Wood blocks are shown. Blocks of an approved alternative material may be used. See **Standard Specification Section 9-16.3(2).**
5. All posts for any standard barrier run shall be of the same type; timber or steel.
6. Attach blockouts to steel posts using bolt holes on approaching traffic side of post web.
7. Anti-rotation holes in steel posts are not required when using blocks with anti-rotation features (e.g., routered blocks).
8. For initial installation, construct the guardrail within ±1" (in.) of the standard 31" (in.) height to the top of rail element.

TIMOTHY J MOECKEL
STATE OF WASHINGTON
56294
REGISTERED
PROFESSIONAL ENGINEER

Aug 14, 2026

BEAM GUARDRAIL TYPE 31

STANDARD PLAN C-20.10-10

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Mark A Bains

Aug 14, 2026

STATE DESIGN ENGINEER

Washington State Department of Transportation