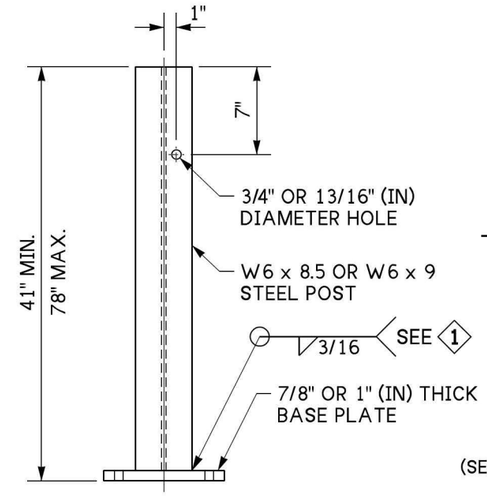
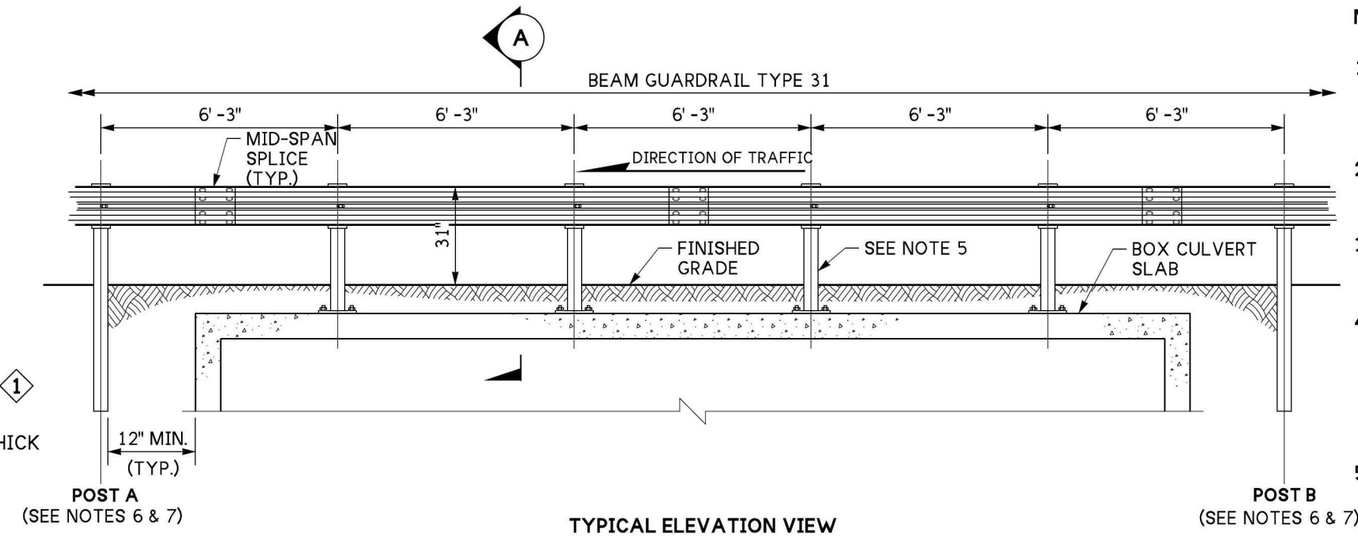
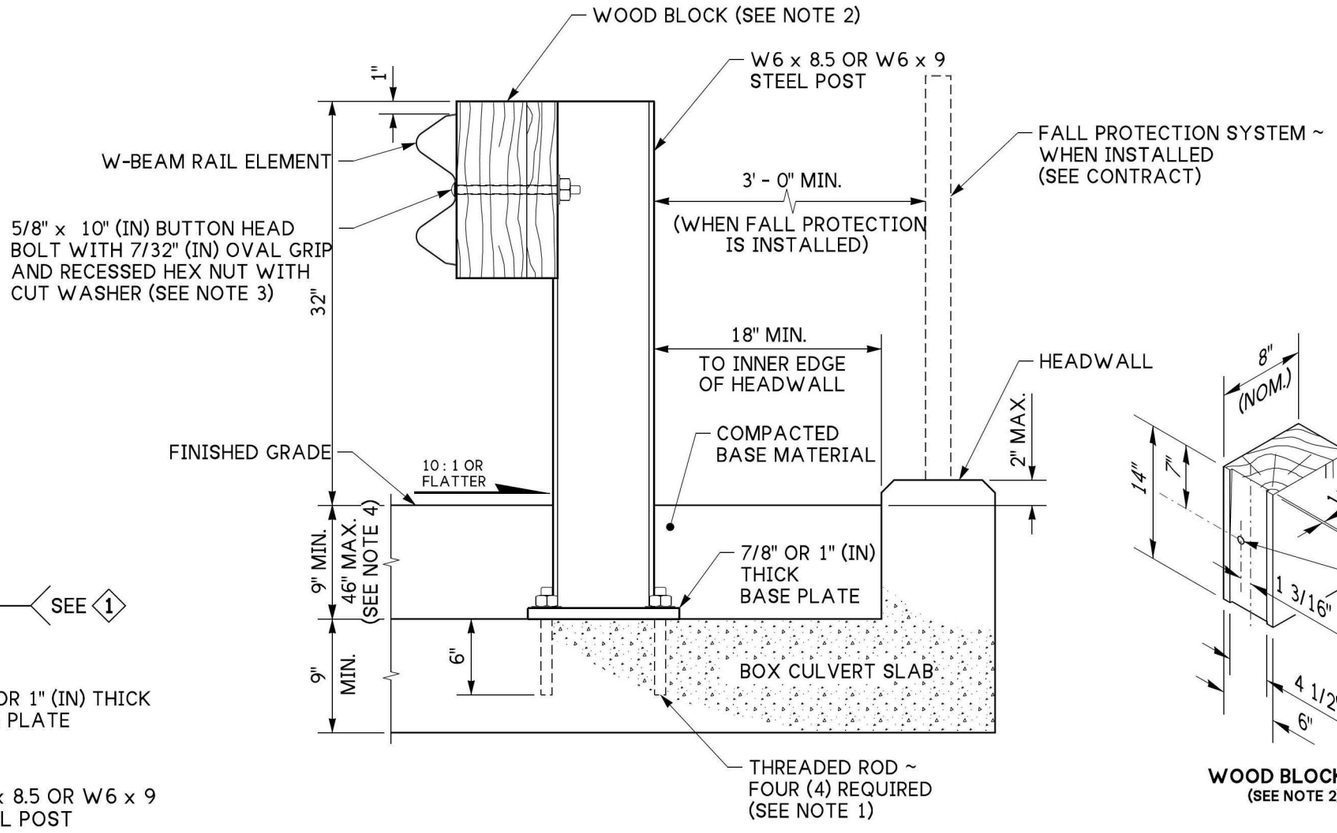


ONE-WAY TRAFFIC

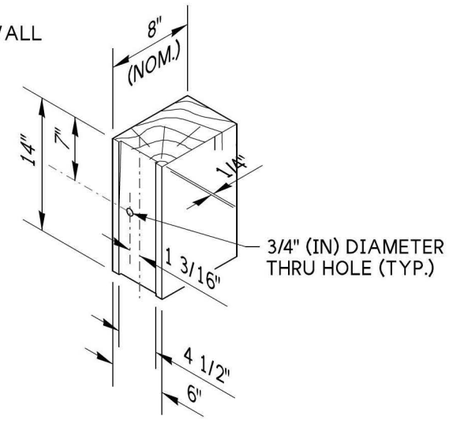
ELEVATION VIEW
BOX CULVERT POST ASSEMBLY



TYPICAL ELEVATION VIEW



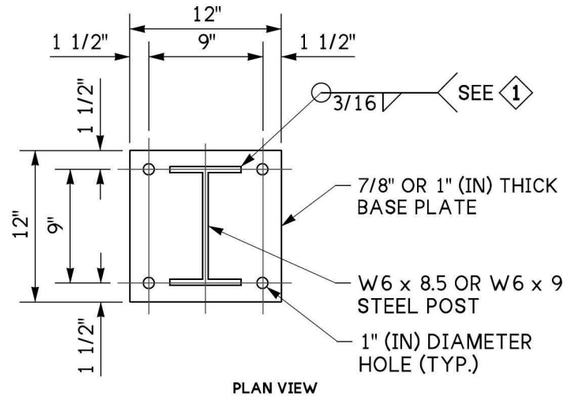
SECTION (A)



WOOD BLOCKOUT
(SEE NOTE 2)

KEY NOTE

(1) WELDING SHALL CONFORM TO **STD. SPEC. SECT. 6-03.3(25)**



PLAN VIEW

BOX CULVERT POST ASSEMBLY

BOX CULVERT GUARDRAIL STEEL POST TYPE 31

NOTES

1. Attach Guardrail Post to Box Culvert with 7/8" (in) diameter high-strength threaded rods 8 1/2" (in) in length with resin-bonded anchors. See **Standard Specification Section 9-06.4**.
2. Wood blocks are shown. Blocks of an approved alternative may be used. See **Standard Specification Section 9-16.3(2)**.
3. Attach blockouts to steel posts using bolt holes on approaching traffic side of post web.
4. Box culvert guardrail steel posts are not needed for depths greater than 46 inches. Install standard 6-foot long Type 31 guardrail posts per **Standard Plan C-20.10**. Place Type 31 guardrail a minimum of 5-feet away from the inner edge of headwall (measured from face of rail to inner face of headwall).
5. Plan shows 4 culvert posts installed on culvert lid. It is acceptable to use a greater or lesser number of box culvert guardrail posts to increase or decrease the length of system as needed.
6. Install at least 62.5 feet of Type 31 guardrail upstream and downstream from posts **A** and **B** (Terminals and Anchors included in length). Provide at least 12.5-feet of Type 31 guardrail before installing terminals and anchors.
7. Install at least 37.5-feet of tangent Type 31 guardrail upstream and downstream from guardrail posts A and B before starting a taper or radius rail guardrail system.

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Sep 1, 2026

BOX CULVERT EMBEDDED ANCHOR GUARDRAIL STEEL POST ~ TYPE 31 STANDARD PLAN C-20.41-06

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Mark A Dains — Sep 1, 2026

STATE DESIGN ENGINEER

Washington State Department of Transportation