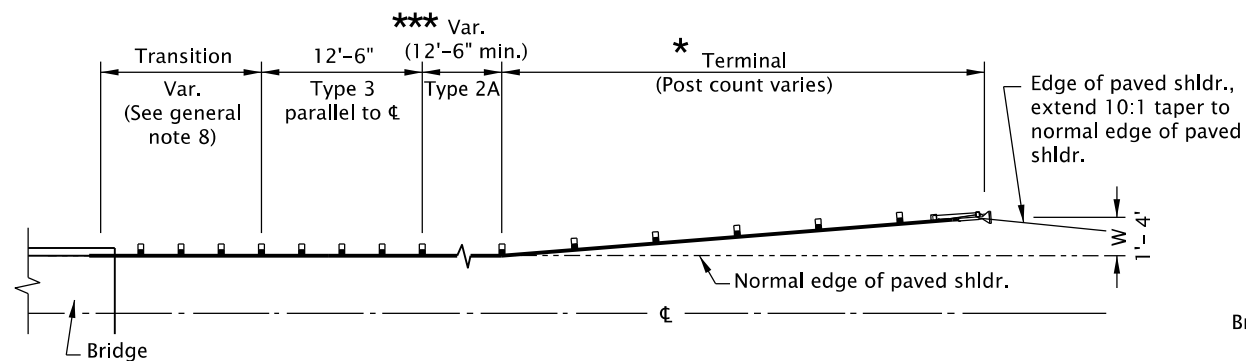
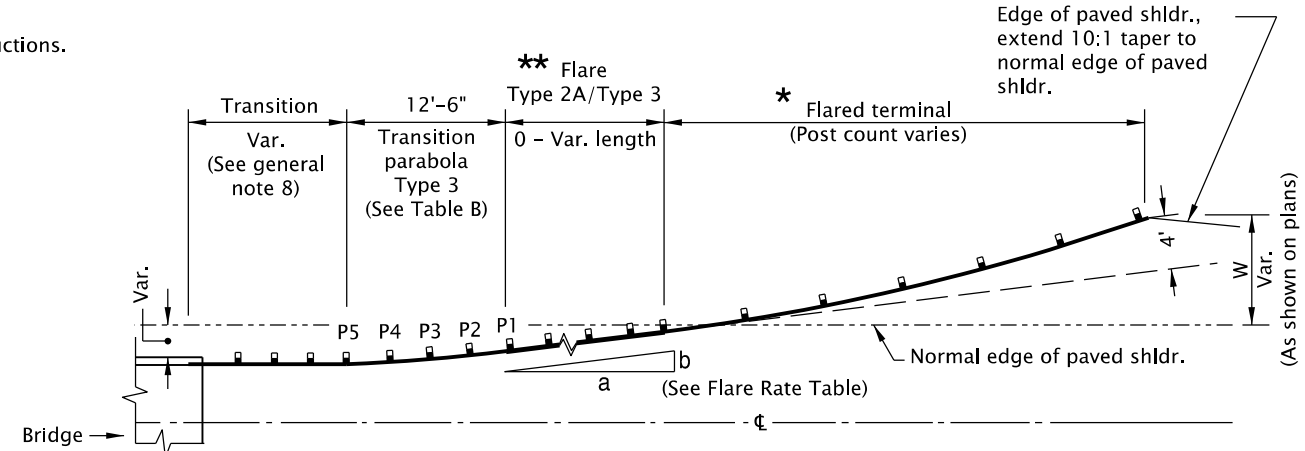
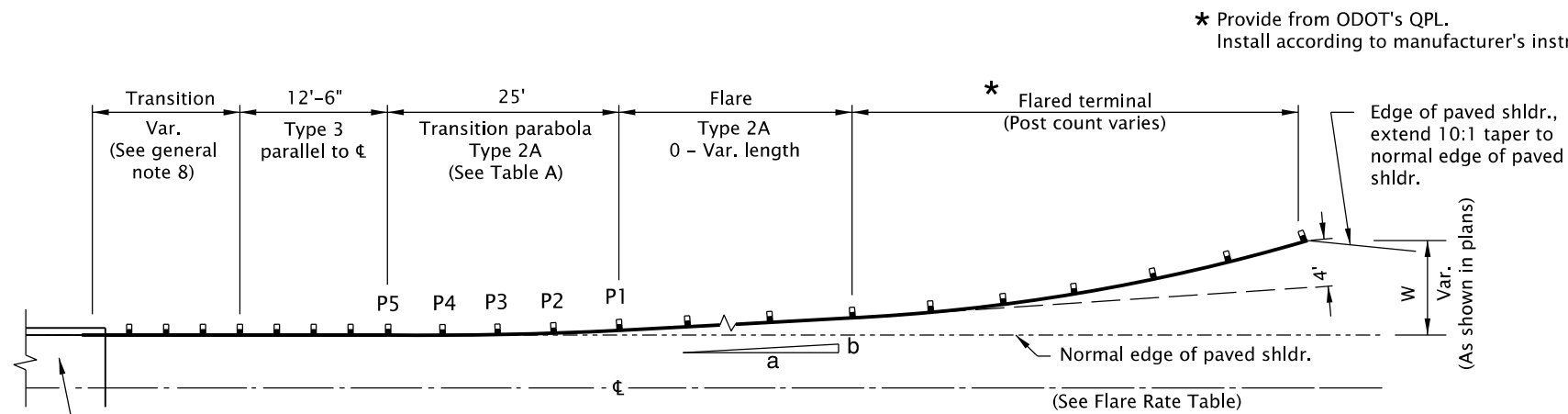


LOCATIONS AT BRIDGE ENDS (MINIMUM SHOWN)

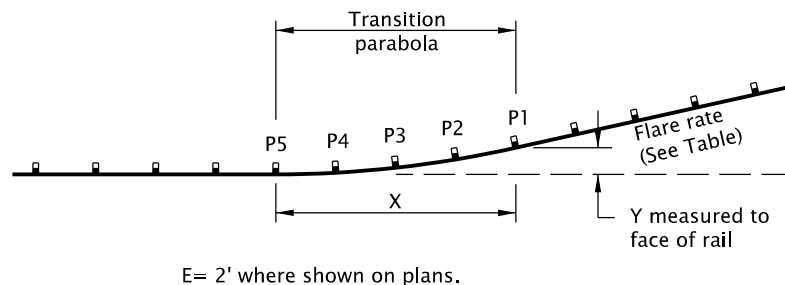


TABLE A
25' TRANSITION PARABOLA

	POST NUMBER				
	P5	P4	P3	P2	P1
X (ft)	0	6.25	12.49	18.72	24.92
Y (ft)	0	0.05	0.21	0.47	0.83

TABLE B
12.5' TRANSITION PARABOLA

	POST NUMBER				
	P5	P4	P3	P2	P1
X (ft)	0	3.125	6.25	9.375	12.49
Y (ft)	0	0.03	0.1	0.23	0.42

FLARE RATE TABLE

FLARE RATE a:b	NORMAL FLARE LENGTH (ft)	NORMAL W (ft)
15:1	12.5	8.1

NOTE:
THIS DRAWING IS RETAINED FOR MAINTENANCE PURPOSES.
DO NOT USE FOR NEW CONSTRUCTION.

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

- See appropriate guardrail standard drawing(s) for details not shown.
- Guardrail at indicated positions is required for protection at bridge ends. Additional guardrail is to be installed as required by guardrail warrant and fastened to bridge.
- Face of guardrail at locations shown above must match face of bridge curb or bridge rail on structures without curb.
- Trailing ends (freeways, multilane and similar one-way facilities) not exposed to opposing traffic:
 - Guardrail terminals, use a Downstream Anchor Terminal (DAT) (RD438), Type B end piece and do not flare.
 - At bridge ends, omit transition guardrail & Type 3 guardrail. Use bridge connection (Bridge Dwg. BR236) and guardrail as required in plans.

- Rail expansion slots to be provided at bridge end connections. See Std. Dwg. RD400 "METAL MEDIAN BARRIER/SHOULDER GUARDRAIL INSTALLATION AT BRIDGE DECK EXPANSION JOINT" details and notes.
- Where bridges employ guardrail in lieu of handrail or vehicular barriers, adjacent connecting guardrail runs shall be the same type.
- All bolts except adjustment bolts shall be drawn tight on rails and components on initial installation.
 - Final tightness check on rail and components bolts and retightening as required to be done 30 days after initial installation.
- For transition guardrail detail and installation limits at bridge ends, see applicable bridge drawings.
- "W" distance is measured to face of guardrail at end post, exclusive of end piece.
- Paving of widened shldr. to the face of posts on both ends of guardrail runs is required.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS GUARDRAIL INSTALLATION AT BRIDGE ENDS (29" RAIL HEIGHT)

2024

DATE	REVISION	DESCRIPTION
CALC. BOOK NO.	N/A	SDR DATE: 13-JAN-2020

RD440

Effective Date: June 1, 2026 – November 30, 2026