

# MEMORANDUM

## State of Alaska

Department of Transportation and Public Facilities  
Statewide Design & Engineering Services

TO: Distribution

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FROM: Mark Neidhold, P.E.   
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SUBJECT: Paving for Guardrail  
Mow Strips – “Leave-  
Outs” Not Required

This memorandum clarifies Alaska DOT&PF’s design and construction standards regarding pavement mow-strips around W-beam, Thrie-beam, and Thrie-beam transition guardrails. Pavement “leave-outs” are not required for guardrail post installations on Alaska DOT&PF projects, and the use of such can create a burden to maintenance staff. However, proprietary end terminals must to be installed in accordance with applicable manufacturers’ requirements, including pavement “leave-outs” or other special details when called for by the manufacturer. This guidance will be included in the 2014 Chapter 11 revision of the Alaska Highway Preconstruction Manual.

Alaska DOT&PF’s current standard for roadside hardware is the AASHTO 2002 Roadside Design Guide, which is silent with regard to strong post W-beam guardrail set in rigid foundations. DOT&PF expects to adopt the 2011 RDG as Alaska’s standard for roadside hardware in 2014. The 2011 RDG includes commentary on guardrail in rock formations and in paved mow strips but does not require “leave-outs” for strong posts installed in pavement.<sup>1</sup>

While the FHWA<sup>2</sup> and AASHTO’s 2011 RDG recognize improved performance when a strong post is allowed to rotate, neither defines the strong-post W-beam performance as unacceptable when post rotation is not allowed.

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<sup>1</sup> Sec. 5.6.7.1 “Guardrail Posts in Rock Formations” and Sec. 5.6.7.2 “Guardrail Posts in Mow Strips.”

<sup>2</sup> FHWA March 10, 2004 Memorandum

The majority of Alaska's system employs strong post W-beam rail systems in soil foundations which routinely freeze to the full depth of the post installations. These foundations, both with and without a pavement mow-strip, prohibit post rotation during crash events similar to a post bedded in rock formation or in a thick pavement mow strip. Alaska does not have a demonstrated safety problem in installations with mow strips without "leave-outs" nor in installations with or without mow-strips with partial or full depth frozen soils.<sup>3</sup>

At the recommendation of the FHWA,<sup>4</sup> DOT&PF has considered our standard plans and specifications for strong-post W-beam guardrail posts and will continue to permit installation without requiring "leave-outs" or other special details. This does not prohibit pavement leave-outs or special rock formation details on a project by project basis if installation is anticipated to facilitate post maintenance or improve guardrail performance.

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<sup>3</sup> A demonstrated history of crash-related rail ruptures, premature post fracture, snagging, pocketing, or unacceptable vehicle redirection.

<sup>4</sup> FHWA March 10, 2004 Memorandum