

April 21, 2003

Refer to: HSA-10/B-64C

Ronald K. Faller, Ph.D., P.E.  
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P.O. Box 880601  
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Dear Dr. Faller:

In your letter dated October 24, 2002, you requested formal Federal Highway Administration acceptance of a W-beam guardrail installation with the support posts set at the hinge point of a 2:1 earth slope.

The tested installation used 2134-mm long W152 x 13.4 steel posts with standard routed wood offset blocks. The posts were set on 952.5-mm centers with the top of the W-beam 706 mm above the ground. This design successfully contained and redirected the 2000-kg pickup truck impacting at 28.5 degrees and 100.7 km/h. Barrier dynamic deflection was 821 mm and vehicle roll and pitch were estimated to be 28 degrees and 17 degrees, respectively. This design met National Cooperative Highway Research Report (NCHRP) 350 at test level 3 (TL-3) and may be used on the National Highway System (NHS) when such use is acceptable to the contracting authority. The test parameters and results noted above are contained in your October 2000 report entitled "Development of a W-Beam Guardrail System for Use on a 2:1 Slope."

Sincerely yours,

(original signed by Harry W. Taylor)

*for:*

Michael S. Griffith  
Acting Director, Office of Safety Design  
Office of Safety