



U.S. Department  
of Transportation

**Federal Highway  
Administration**

400 Seventh St. S.W.  
Washington, D.C. 20590

February 19, 1997

Refer to: HNG-14

Brian G. Pfeifer, P.E.  
Research Associate Engineer  
Midwest Roadside Safety Facility  
University of Nebraska Lincoln  
1901 'Y' Street, Building C  
Lincoln, Nebraska 68588-0601

Dear Mr. Pfeifer:

Your December 2, 1996, letter to Mr. Gerald L. Eller requested replacing the current 1/4-inch x 1-inch x 8-inch (6 mm x 25 mm x 200 mm) steel strap on the top inside face of the bearing plate used at the end of the BEST anchor cable with a 1/4-inch x 1-inch x 8 3/4-inch (6 mm x 25 mm x 220 mm) strap, the ends of which were to be bent at 90 degrees to provide 1/4-inch (6-mm) tabs on both sides of the post to prevent the plate from rotating if the anchor cable were to become slack. My January 20 response denied this request, stating our belief that the addition of the tabs, of themselves, would not prevent rotation of the bearing plate because the slack in the anchor cable from temperature effects is likely to be in the order of the clearance in the guardrail-to-post bolt holes, up to approximately 45 mm.

In your January 30 letter to Mr. Eller you noted that, when properly installed, the impact head of the BEST is in contact with the w-beam rail, thus, with the anchor cable tight and the head bolted to post 1, preventing rail movement relative to the first post, greatly limiting potential slackening of the cable anchor. We noted also that you will change the bend pattern of the strap to lengthen the tabs on the anchor plate from 6 mm to 13 mm to accommodate any slack that might occur in the cable. In light of this additional information, the modified bearing plate shown in Enclosure 1 may be used for the BEST guardrail

terminal, provided the terminal is constructed in accordance with your installation manual, the pertinent sections of which are Enclosure 2. Copies of this letter, with enclosures, will be sent to the Federal Highway Administration field offices.

Sincerely yours,



Dwight A. Horne, Chief  
Federal-Aid and Design Division

2 Enclosures

Federal Highway Administration

HNG-14:RPowers:366-1320:2/18/97:Pfeifer

copies to:

HNG-1 HNG-10 HNG-14 Reader, 3128 File 3128

RAS HFL-1 HHS-10 HRS-20

Supplemental B to Geometric and Safety Design Acceptance Letter  
number CC-37, dated November 20, 1996, and erroneously identified  
CC-36.