



U.S. Department  
of Transportation

**Federal Highway  
Administration**

October 27, 2006

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

In Reply Refer To:  
HSA-10/B-137A1

Mr. Bill Neusch  
President  
Gibraltar  
320 Southland Road  
Burnet, TX 78611

Dear Mr. Neusch:

Your test level 4 (TL-4) Gibraltar cable barrier was formally accepted for use on the National Highway System in my September 9, 2005, acceptance letter, B-137A. The tested design, as described in that letter, consisted of cables placed 20 inches, 30 inches, and 39 inches above the ground line. In your October 13, 2006, letter to Mr. Richard Powers of my staff, you requested the Federal Highway Administration's acceptance of a modified version of this design which added a fourth cable between the bottom two at a height of 25 inches. The resultant 4-cable design has the lower three cables at the same heights as your TL-3 design while retaining the top cable at the tested TL-4 height of 39 inches. The addition of the fourth cable requires a modified "hairpin" and lockplate to retain the cables at the proper heights. Since the terminal remains the same, it will also be necessary to "anchor" the added cable. You have proposed to do this by tapering the 25-inch high cable down to the bottom (20-inch) cable between the first line post and the last terminal post and connecting the two cables with a series of four cable clamps (Crosby Type) spaced 4.5 inches apart along the 20-inch high bottom cable.

The modified Gibraltar Cable Barrier as described above remains an National Cooperative Highway Research Program Report 350 TL-4 median barrier when the posts are set on alternate sides of the cables or a TL-4 roadside barrier when the cables are all on the traffic side of the C-posts. Although the additional cable can logically be expected to reduce the design deflection of the barrier, it is not currently possible to assign a specific number to this reduction without benefit of a crash test.

Sincerely yours,

*/original signed by/*

John R. Baxter, P.E.  
Director, Office of Safety Design



