



U.S. Department  
Of Transportation  
**Federal Highway  
Administration**

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

July 18, 1996

Refer to: HNG-14/SS-18A

Mr. Rick Mauer  
National Sales Manager  
Marion Steel Company  
912 Cheney Avenue  
Marion, Ohio 43303

Dear Mr. Mauer:

This is in reply to your June 24 letter to Mr. Nicholas Artimovich regarding your company's Rib-Bak u-channel signposts. Various sizes of Rib-Bak posts have been crash tested and found acceptable as breakaway sign supports when buried directly in the soil, when used with the Lap-Splice system, or when used with the Minuteman Breakaway System. You requested that FHWA acceptance be continued if the shape of the post cross-sections is changed. To increase the steel mill's rolling efficiency, you propose to remove the two outermost ribs (at the edge of the "flanges" of the u-channel) while retaining the two ribs on either side of the web, adjacent to the row of holes.

In support of this request you provided section data via facsimile on July 9 on both the original and proposed post cross sections. The net effect of revising the Rib-Bak cross section is a slight change to the Moment of Inertia and the Section Moduli of some of the posts (4 percent +/-). The cross-section area and the mass per meter of the posts will not change since your revision will redistribute the metal that was formerly rolled into the ribs. This metal will remain in the flanges or, in some cases; a small portion will be redistributed to the sidewalls.

Because the section properties of the proposed posts are very close to those of the crash tested posts, and the mill's rolling tolerance of the dimensions of u-channel posts is +/- five percent, we find the proposed revised designs acceptable for use on the national highway system, if requested by a state. Conditions regarding steel quality, spacing, splice details, stub height, etc, that were discussed in our acceptance of the original Rib-Bak design remain in effect.

Sincerely yours,

Seppo I. Sillan, Acting Chief  
Federal-Aid and Design Division

Geometric and Roadside Design Acceptance Letter Number SS-64  
Supplements GARDAL 55-5, 55-13, 55-18, 55-56, and 55-57.