



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

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

December 23, 1996

Refer to: HNG-14/SS-71

Mr. Peter A. Speer  
Vice President, Sales  
Davidson Plastics Corp  
18726 East Valley Highway  
Kent, Washington 98032-9945

Dear Mr. Speer:

This is in response to your letter of September 23 to Mr. Seppo I. Sillan regarding National Cooperative Highway Research Program (NCHRP) Report 350 approval of your company's Flexi-Guide Delineator posts. In the past delineators, cones, vertical panels, and other work zone devices were not subjected to the rigors of crash testing, because it was thought that they would be far less hazardous than the typical breakaway signpost. Indeed, most early delineator posts were short, lightweight versions of crashworthy flanged-channel signposts.

In the last few years, two plastic delineator post manufacturers have requested Federal Highway Administration's (FHWA) acceptance of their posts. In both cases, videotapes of automobile testing were submitted. The testing was conducted to show the resilience of the post and was not intended to show full compliance with the NCHRP Report 350. It was obvious to us that these posts posed little hazard to an errant vehicle.

The video of the Caltrans testing that you submitted shows results similar to those observed when testing other such delineator post. Because of the design of Flexi-Guide FG 400 and FG500 Series Delineator posts, the posts slap down to the ground when struck, and return upright when the vehicle passes. Change in vehicle velocity, as seen on your demonstration video, appears to be negligible. Because of the obviously benign nature of the Flexi-Guide delineator posts, we feel that they would easily meet our requirements if crash tested according to the NCHRP Report 350.

Therefore, your company's Flexi-Guide FG 400 and FG 500 Series Delineator posts are acceptable for use on the National Highway System (NHS), if requested by a State.

Our acceptance is limited to yielding characteristics of the Flexi-Guide Delineator posts and does not cover their structural features. Presumably you will supply potential users

with sufficient information on structural design and installation requirements to ensure proper performance. We anticipate that the highway agencies will require certification from you that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as those you have described to us, and that they will meet the Federal Highway Administration change in velocity requirements.

Flexi-Guide Delineator posts are proprietary products. Therefore, to be used in Federal-aid projects, except exempt, non-NHS projects: (a) must be supplied through complete bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with existing highway facilities for that no equally suitable alternative exists or; (c) they must be used for research or for a distinctive type of construction on relatively short sections of road for experimental purposes. Our regulations concerning proprietary products are contained in Title 23, Code of Federal Regulations, Section 635.411, a copy of which is enclosed.

Sincerely Yours,

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

Enclosure

FHWA: HNG-14: N Artimovich: 366-1331: gm: 12-18-96: SPEER

Copies to: HPD-1 HNG-1 HNG-10 HNG-14  
Reader, 3128 File, 3128 Ras HFL-1  
HHS-10 HSR-20 HNG-20

Geometric and Safety Design Acceptance Letter SS-71