



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

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

December 6, 2005

In Reply Refer To: HSA-10/WZ-39
Amendment 1

Mr. Peter Speer
Davidson Traffic Control Products
Filtrona Extrusion
3110 70th Avenue East
Tacoma, Washington 98424

Dear Mr. Speer:

Thank you for your email of April 6, 2005, requesting the Federal Highway Administration (FHWA) acceptance of a modification to your company's T3B Plastic Type III Barricade as crashworthy traffic control devices for use in work zones on the National Highway System (NHS). Accompanying your earlier letters were a report from E-TECH Testing Services, Inc., detailed descriptions and drawings of each device, and videos of the crash tests. You requested that we find this barricade, with T3B 25.4mm x 210mm hollow plastic panels and plastic vertical members, acceptable for use on the NHS under the provisions of the National Cooperative Highway Research Program (NCHRP) Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features." Your present request was for the 8-foot wide version with PSST feet and uprights with the addition of a horizontal stabilizing PSST crossbar. This amended letter only addresses this variation.

The FHWA guidance on crash testing of work zone traffic control devices is contained in two memoranda. The first, dated July 25, 1997, titled "Information: Identifying Acceptable Highway Safety Features," established four categories of work zone devices: Category I devices were those lightweight devices which could be self-certified by the vendor, Category II devices were other lightweight devices which needed individual crash testing, Category III devices were barriers and other fixed or massive devices also needing crash testing, and Category IV devices were trailer mounted lighted signs, arrow panels, etc. The second guidance memorandum was issued on August 28, 1998, and is titled "INFORMATION: Crash Tested Work Zone Traffic Control Devices." This later memorandum lists devices that are acceptable under Categories I, II, and III.

The **Perforated Square Steel Tube (PSST) Barricade using T3B** panels is a Type III barricade using your plastic panels mounted on 1-3/4 inch PSST vertical uprights instead of your square thermoplastic vertical members. The FHWA acceptance letter WZ-39, originally



signed June 29, 2000, found this barricade acceptable. It also accepted the substitution of 2-inch PSST horizontal skids with appropriate connection hardware to the uprights. Barricades up to 8 feet wide without auxiliary signs were also accepted.

Your present request is for the 8-foot wide version with PSST feet and uprights with the addition of a horizontal stabilizing PSST crossbar. We concur that this variation is within the range of Type III barricades that have been successfully tested and/or considered crashworthy. Therefore, your company's Type III barricades using up to 1-3/4 inch PSST uprights and crossbar of 12 or 14 gage PSST, and 2 inch PSST horizontal skids, with rails up to 8 feet long, are acceptable under the range of conditions tested for use on the NHS when requested by a State.

Please note the following standard provisions that apply to the FHWA letters of acceptance:

- Our acceptance is limited to the crashworthiness characteristics of the devices and does not cover their structural features, nor conformity with the Manual on Uniform Traffic Control Devices.
- Any changes that may adversely influence the crashworthiness of the device will require a new acceptance letter.
- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals unacceptable safety problems, or that the device being marketed is significantly different from the version that was crash tested, it reserves the right to modify or revoke its acceptance.
- You will be expected to supply potential users with sufficient information on design and installation requirements to ensure proper performance.
- You will be expected to certify to potential users that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance, and that they will meet the crashworthiness requirements of the FHWA and the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number WZ-39 Amendment 1 shall not be reproduced except in full. This letter, and the test documentation upon which this letter is based, is public information. All such letters and documentation may be reviewed at our office upon request.
- The Davidson Plastics/Bunzel Extrusion Type III barricades contain patented components and are considered "proprietary." The use of proprietary work zone traffic control devices in Federal-aid projects is generally of a temporary nature. They are *selected by the contractor* for use as needed and removed upon completion of the project. Under such conditions they can be presumed to meet requirement "a" given below for the use of proprietary products on Federal-aid projects. On the other hand, if proprietary devices are *specified by a highway agency* for use on Federal-aid projects they: (a) must be supplied through competitive bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with existing highway facilities or 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. These provisions do not apply to exempt non-NHS projects. Our regulations concerning proprietary products are contained in Title 23, Code of Federal Regulations, Section 635.411, a copy of which has been provided with earlier correspondence.

- This acceptance letter shall not be construed as authorization or consent by the FHWA to use, manufacture, or sell any patented device for which the applicant is not the patent holder. The acceptance letter is limited to the crashworthiness characteristics of the candidate device, and the FHWA is neither prepared nor required to become involved in issues concerning patent law. Patent issues, if any, are to be resolved by the applicant.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "John R. Baxter". The signature is fluid and cursive, with the first name "John" being the most prominent.

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