

Refer to: HSA-10/WZ-128

Mr. Scott Behm
Three D Traffic Works, Incorporated
430 North Varney Street
Burbank, California 91502

Dear Mr. Behm:

Thank you for your letter of May 6, 2002, requesting Federal Highway Administration (FHWA) acceptance of variations to your company's Type III barricades as crashworthy traffic control devices for use in work zones on the National Highway System (NHS). You requested that we find your company's Type III barricades acceptable for use on the NHS under the provisions of National Cooperative Highway Research Program (NCHRP) Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features." Your letter requested an update to WZ-82 dated September 14, 2001, and compared your barricade rails to others that have already been crash tested and found acceptable by the FHWA.

Introduction

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 following two barricades were described in detail and found acceptable in FHWA Acceptance Letter WZ-82 mentioned above:

1. Type III Plastic and Metal Barricade, Model No. TD 2000, with 25.4 mm (1 inch) extruded board manufactured by Davidson Plastics Corporation with metal uprights and metal feet. Overall mass of this barricade is 22.25 kg (49 pounds.)

2. Type III Plastic and Metal Barricade, Model No. TD 2000, with 50.8 mm (2 inch) injection-molded board manufactured by Three D Traffic Works, Incorporated with metal uprights and metal feet. Overall mass of this barricade is 29 kg (64 pounds.)

Your present request is to permit the use of the following extrusions as rail elements for these barricades:

- A: Three-D Traffic Work's 2 x 8 rail extruded from specially formulated polyolefin (HDPE with added UV protection and polymer stabilizers), weighing 1 pound, 1 ½ ounces per foot.
- B: Three-D Traffic Work's 1 x 8 rail extruded from specially formulated polyolefin, weighing 13 ounces per foot.

Findings

The two rails described above and shown in the enclosed drawings for reference are similar in size, structure, and composition to previously tested rails and/or other barricade rails that have been found acceptable for use. Therefore, the devices described above and shown in the enclosed drawings for reference, plus smaller Type III barricades in the same family of products are acceptable for use as Test Level 3 devices on the NHS under the range of conditions tested, when proposed by a State. Please note that barricade panels must be rigidly attached to the barricade frame using bolts, nuts, and washers similar to those used on the tested barricades. Barricade rails should not extend more than 200 mm (8 inches) beyond the uprights.

Please note the following standard provisions, which apply to 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 FHWA and NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number WZ-128 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.

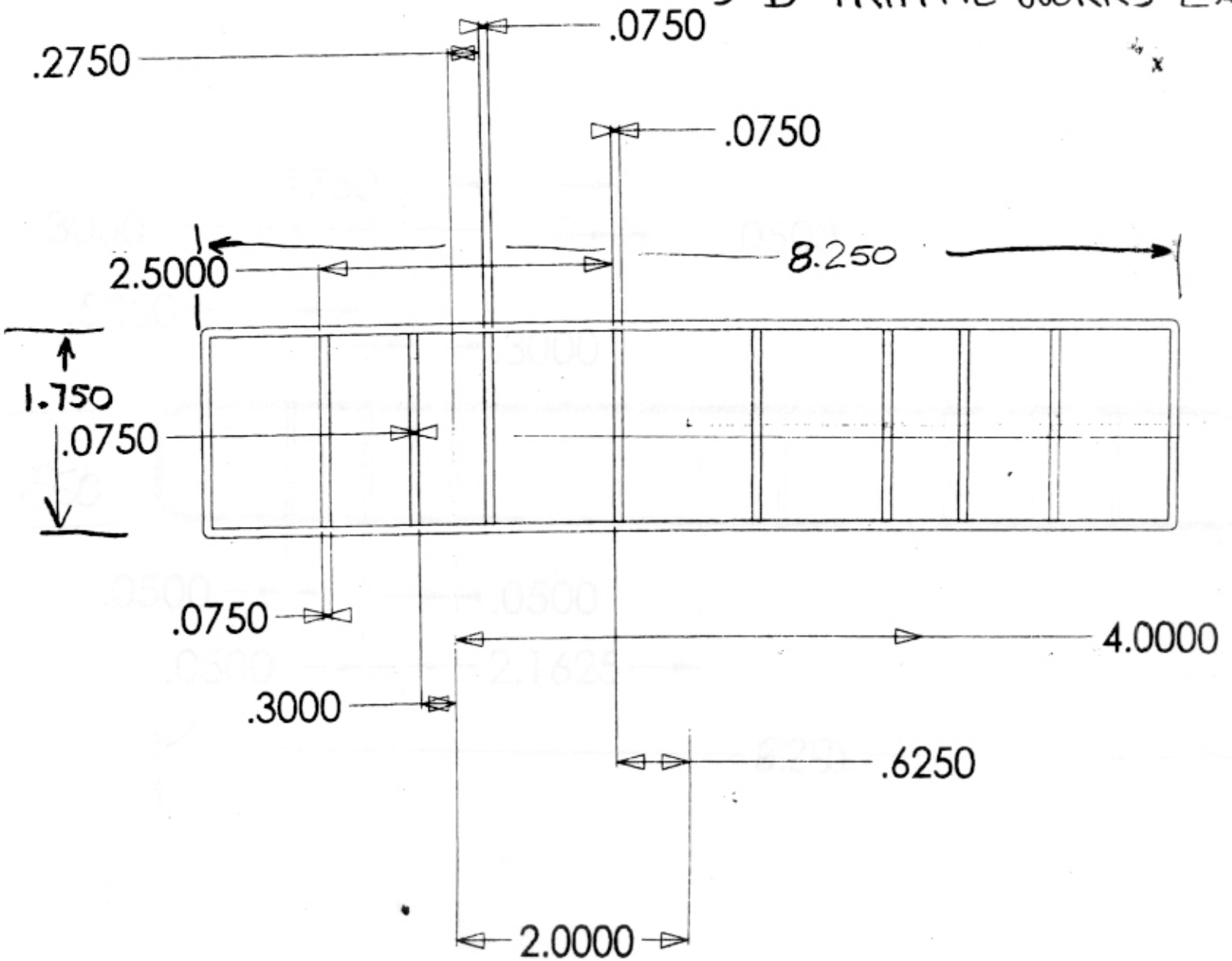
Three D Traffic Works products may include patented components and if so are considered "proprietary." The use of proprietary work zone traffic control devices in Federal-aid projects is generally of a temporary nature. They are selected by the contractor for use as needed and removed upon completion 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 for use on Federal-aid projects, except exempt, non-NHS 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. 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,

Carol H. Jacoby, P.E.
Director, Office of Safety Design

Enclosure

3-D TRAFFIC WORKS 2x8



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