

Refer to: HSA-10/WZ-120

Mr. Matthew Mooney
Operational Administrator
NES Work Safe
2610 Sanford Avenue
Grandville, Michigan 49418

Dear Mr. Mooney:

Thank you for your letters of January 30 and February 6, 2002, requesting Federal Highway Administration (FHWA) acceptance of your company's Type III Barricade as a crashworthy traffic control devices for use in work zones on the National Highway System (NHS). Accompanying your letter were drawings and a description of your barricades, comparing them to the generic Type III barricades distributed by FHWA. You requested that we find these devices 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." On March 20, 2002, Mr. Nicholas Artimovich of my office contacted you via email with comments regarding the acceptability of your design. You responded to those comments with a drawing transmitted with your June 3, 2002, email message to Mr. Artimovich.

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.

A brief description of the device follows:

The NES WorkSafe Type III barricade is comparable to the generic barricade accepted by FHWA Acceptance Letter WZ-54 on December 15, 2000. It consists of perforated square steel tube uprights, 12-gage wall thickness, measuring 1 3/4 inches on a side. The horizontal legs are 2 x 2 angles, 48 to 72 inches long, and have a 2 x 2 inch steel tube welded to the center to support the uprights. The 8-foot long plywood panels are bolted to the uprights with

3/8 inch x 3-inch-16 hex cap bolts and 1-1/2 inch flat washers. The lightweight warning lights are attached to the back of the uprights using 1/2 inch x 4 inches-16 zinc coated steel half moon light bolts with anti-theft cups. The bolts pass through the plywood rails also. The overall heights of the barricade are 60 inches to the top of the top rail and 68 inches to the top of the light.

Findings

Because this barricade is nearly identical to the successfully crash-tested barricade accepted by the FHWA it can be expected to perform in a similar manner. Therefore, the device described above and shown in the enclosed drawings for reference are acceptable for use on the NHS under the range of conditions tested, when proposed by a State.

Please note the following standard provisions that 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-120 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 NES Work Safe Type III Barricade 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,

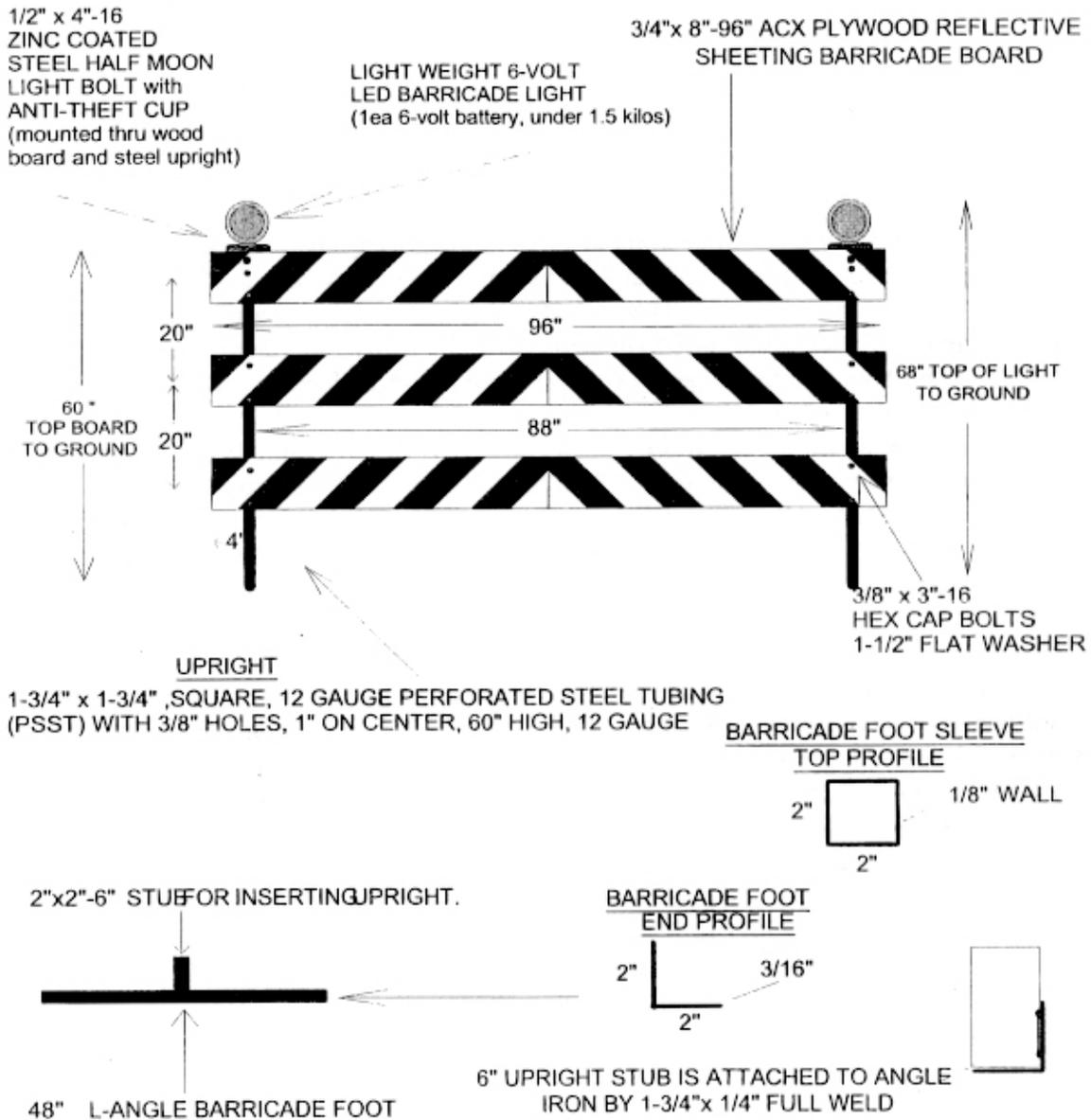
except exempt, non-NHS projects, they: (a) must be supplied through competitive bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with existing highway facilities or that no equally suitable alternative exists or; (c) they 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

NES-WORKSAFE TYPE III BARRICADE SCHEMATIC



NOTE- BARRICADE IS BALLASTED WITH 8EA, 35LB SANDBAGS FOR HIGH WIND CONDITIONS