



US Department
of Transportation
Federal Highway
Administration

July 10, 2000

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

WZ-27

Refer to: WZ-27

Mr Bill Thurston
The Roadmarker Company
PO Box 1887
Reno, Nevada 89505

Dear Mr. Thurston:

This is in response to your May 8 facsimile message and earlier correspondence to Mr Nicholas Artimovich of my office regarding your company's Type II plastic barricade, Model # 200. You requested that we find the barricades acceptable for use on the National Highway System (NHS) under the guidelines of National Cooperative Highway Research Program (NCHRP) Report 350. With your various letters and facsimile messages you submitted drawings, specifications, and product literature on your barricade, plus a letter report on crash testing conducted by the California Department of Transportation (CALTRANS).

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 latest memorandum lists devices that are acceptable under Categories I, II, and III

Your company's plastic barricades are made of two panels of blow-molded high density polyethylene hinged together at the top. In place, the distance to the top of the barricade is 1070 mm (42 inches). The panels are 610-mm wide, and have a hollow lower cross member that will accept ballast such as sand. The mass of the barricade is 5.5 kg (12 pounds) without ballast and 9 kg (20 pounds) with the optimum amount of sand ballast.

Your company's Model # 200 plastic barricade is similar in size, mass, and construction to other successfully crash-tested type II plastic barricades, and can be expected to perform in a similar manner. The crash testing conducted by CALTRANS, although only run at 56 km/h, showed that the performance of your company's barricades would likely be comparable to that of the other acceptable plastic barricades.

An important limitation to the use of your company's plastic barricades on the NHS is that no lights, signs, or flags may be used unless the barricade is successfully crash tested with these auxiliary devices. All Type II plastic barricades that have been found acceptable for use to date

have been subject to full-scale automobile testing at 100 km/h with warning lights in place. In most cases the lights remained attached to the barricade and caused little or no damage to the test vehicle's windshield. The performance of your company's barricade with lights (and / or flags and signs) can only be assessed through full-scale testing in accordance with NCHRP 350

Our acceptance is limited to the crashworthiness characteristics of the barricade (with no lights, signs, or flags) and does not cover its structural features, nor conformity with the Manual on Uniform Traffic Control Devices. Presumably, you will supply potential users with sufficient information on design and installation requirements to ensure proper performance. We anticipate that the States will require certification from the Roadmarker Company that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance. To prevent misunderstanding by others, this letter of acceptance, designated as number WZ-27, shall not be reproduced except in full.

The Model # 200 plastic barricade is a patented product and is 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.

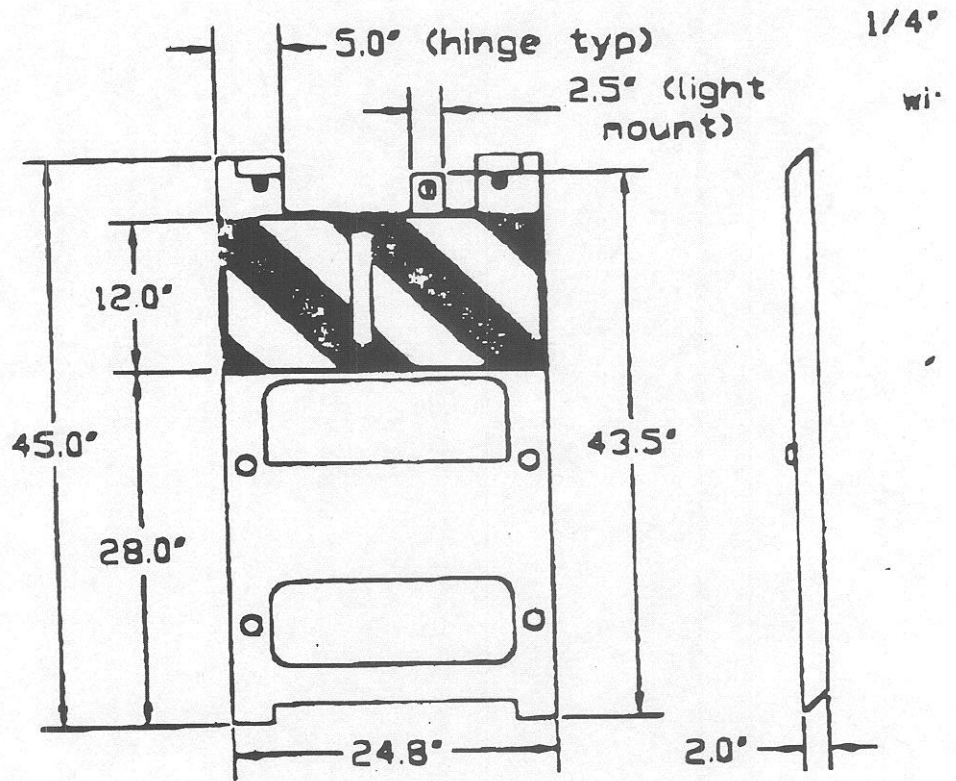
Sincerely yours,



Frederick G. Wright, Jr.
Program Manager, Safety

Enclosure

The Roadmarker Co.



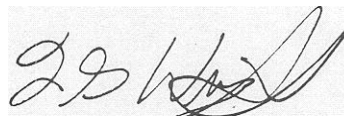
BARRICADE PANEL DETAIL

have been subject to full-scale automobile testing at 100 km/h with warning lights in place. In most cases the lights remained attached to the barricade and caused little or no damage to the test vehicle's windshield. The performance of your company's barricade with lights (and / or flags and signs) can only be assessed through full-scale testing in accordance with NCHRP 350.

Our acceptance is limited to the crashworthiness characteristics of the barricade (with no lights, signs, or flags) and does not cover its structural features, nor conformity with the Manual on Uniform Traffic Control Devices. Presumably, you will supply potential users with sufficient information on design and installation requirements to ensure proper performance. We anticipate that the States will require certification from the Roadmarker Company that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance. To prevent misunderstanding by others, this letter of acceptance, designated as number WZ-27, shall not be reproduced except in full.

The Model # 200 plastic barricade is a patented product and is 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.

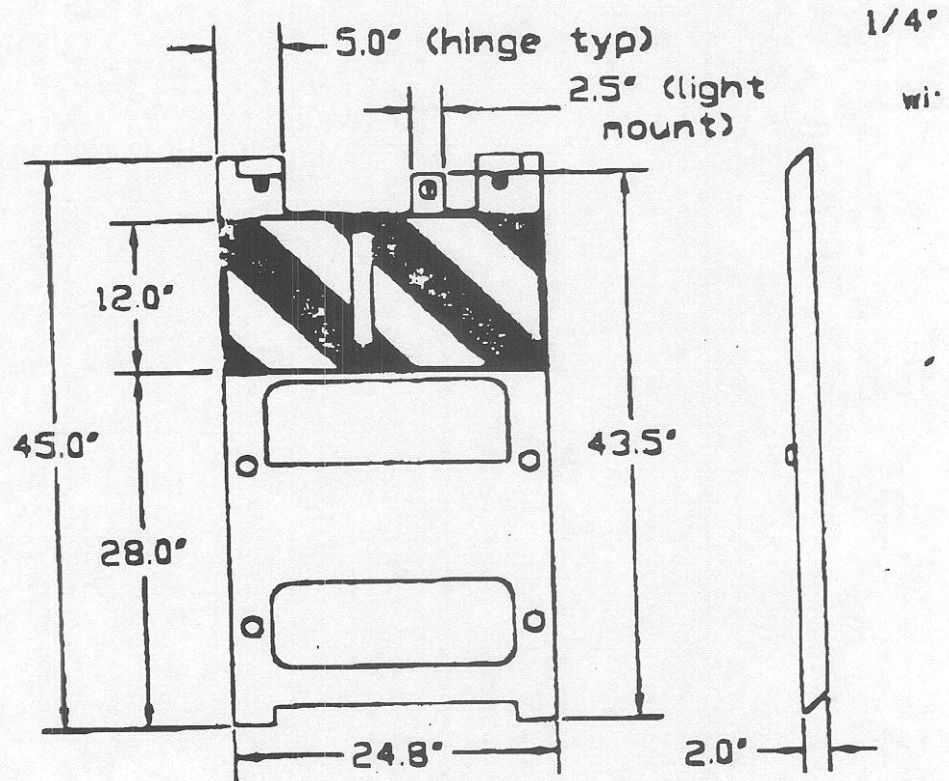
Sincerely yours,



Frederick G. Wright, Jr.
Program Manager, Safety

Enclosure

The Roadmarker Co.



BARRICADE PANEL DETAIL