



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

1200 New Jersey Ave., SE  
Washington, D.C. 20590

October 21, 2011

In Reply Refer To:  
HSST/ WZ-305

Henry A. Ross  
Director of Government Relations  
Plasticade Products  
7700 N. Austin Avenue  
Skokie, Illinois 60077

Dear Mr. Ross:

This is in response to your September 1, 2010, letter requesting the Federal Highway Administration's (FHWA) acceptance of your company's Econocade™ Type I and Type II Barricades with lightweight warning lights as crashworthy traffic control devices for use in work zones and elsewhere on the National Highway System (NHS). Accompanying your letter was the FHWA Office of Safety Design form indicating successful performance when tested under the AASHTO Manual for Assessing Safety Hardware (MASH) Test 3-71 (Modified.)

Device	Fibercade Type II Barricade	Econocade Type I and Type II Barricades
Test #	400001-ALB3	N/A
Height, mm (in)	1075 (42)	1016 (40)
Height to top of light	1313 (52)	1240 (48)
Mass (without light*)	6.9 kg (15.2 lbs.)	6.0 kg (13.2 lbs.)
Mass		10.5 kg (23.1 lbs.)
Mass, plus ballast	29.7 kg (65.5 lbs.)	
Vehicle Speed, km/h	97.5, 92.7	N/A
Velocity Change, m/s	1.33, 2.06	N/A
Windshield Damage	None	N/A

You requested that we find the Econocade™ Barricades with lightweight warning lights acceptable for use on the NHS under the provisions of the National Cooperative Highway Research Report 350 and MASH based on its equivalence to your previously crash-tested Plasticade™ barricade. The Plasticade was found acceptable in FHWA Acceptance Letter WZ-14 dated May 28, 1999. As no additional crash testing was conducted under MASH criteria, our acceptance will be limited to performance under NCHRP Report 350.

The Econocade™ Barricades described above and detailed in the enclosed drawing is equivalent to the tested barricade as it is now molded as one piece and expected to perform in the same manner as the tested barricade. Therefore, they are acceptable for use on the NHS under the test conditions noted above, when such use is acceptable to a highway agency.

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

- This acceptance is limited to the crashworthiness characteristics of the tested features and does not cover their structural features, such as resistance to wind loads.
- Any design or material changes that may adversely influence the crashworthiness of the barricades 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 system being marketed is significantly different from the version that was crash tested, we reserve the right to modify or revoke our 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, modified as noted above, and that it will meet the crashworthiness requirements of the FHWA and the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance is designated as number WZ-305 and shall not be reproduced except in full. This letter and the test documentation upon which it is based are public information. All such letters and documentation may be reviewed at our office upon request.
- The Plasticade products identified above are patented products and considered proprietary. If proprietary systems are specified by a highway agency for use on Federal-aid projects, except exempt, non-NHS projects, (a) they must be supplied through competitive bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with the 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.
- This acceptance letter shall not be construed as authorization or consent by the FHWA to use, manufacture, or sell any patented system for which the applicant is not the patent holder. The acceptance letter is limited to the crashworthiness characteristics of the candidate system, 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,



Michael S. Griffith  
Director, Office of Safety Technologies  
Office of Safety

Enclosures

# PLASTICADE<sup>®</sup> PRODUCTS

September 1, 2010

Nicholas A. Artimovich II  
Highway Engineer  
Federal Highway Administration, Office of Safety  
1200 New Jersey Avenue, SE  
Washington District of Columbia 20590

Dear Mr. Artimovich:

Attached is our request for an acceptance letter under MASH/NCHRP-350 for a Category 2 Work Zone Traffic Control Device for our Econocade™ Type I and Type II barricade, with an attached warning light.

This is a one-piece injection-molded unit made of high density polyethylene material. It meets all of the design requirements of the MUTCD.

To support this request for acceptance, I refer to Acceptance Letter WZ-14 (attached). This letter accepts Plasticade's Fibercade™ and Plasticade™ Type II barricades after successful crash testing. The primary difference between these accepted products and the Econocade is the one-piece construction of the Econocade vs. the assembled component construction of the Fibercade barricade.

To further support this request, I refer to WZ-54, a FHWA Policy Memorandum in which certain acceptable crash tested barricade designs are made "generic" and available for anyone to use.

In addition to our attached request for acceptance, I have attached a literature piece for the subject device, as well as a drawing. I have also attached copies of both WZ-14 and WZ-54 for your reference.

Please let me know what other information is needed in order to facilitate a review of this request.

Sincerely,

Henry A. Ross  
Director of Government Relations  
Plasticade Products,  
7700 N. Austin Avenue  
Skokie, IL 60077  
(800)772-0355  
(847)583-4189 Direct  
(773)294-4942 Cell  
[hross@americanlouver.com](mailto:hross@americanlouver.com)

Page 1	<b>FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN</b>	Letter Number
	<b>Category 2 Work Zone Device Acceptance Letter</b>	Date <b>WZ305</b>
Contact Info	Petitioner / Developer Name and Address:	
	Plasticade Products Attn. Henry A. Ross 7700 N. Austin Avenue Skokie, IL 60077	
	I hereby certify that the device(s) covered by this Acceptance Letter meet(s) the crash – worthiness test and evaluation requirements of the FHWA and NCHRP Report 350.	
Signature	<i>Henry A. Ross</i>	
Telephone #	(800) 772-0355	
Email Address	hross@americanlouver.com	
	Laboratory / Engineer Name and Address	
<input type="checkbox"/>	I hereby certify that the testing that supports this Acceptance Letter was conducted in accordance with NCHRP Report 350 guidelines, that the device(s) tested is/are accurately described on this form, and that the test results indicate that the device meets all applicable NCHRP Report 350 evaluation criteria.	
<input type="checkbox"/>	I have evaluated the requested modifications to these devices previously found acceptable by the FHWA in Acceptance Letter WZ-____, and hereby certify that, in my opinion, the modifications do not adversely affect the crash performance of the devices. I also certify that these devices are accurately described on this form.	
Signature		
Telephone #		
Email Address		
Keywords:	Econocade Type I and Type II Barricade	
	Type of Device (See page 3) Type II Barricade	
	Composition of Sign or Rail substrate (See Page 3) Waffleboard Plastic	
	Thickness of substrate (inches):	
	Height of sign from the ground (inches), if applicable: (See Page 3)	
	Flags and or lights present during test? Indicate number of each:	
	# of flags:                      # of lights:                      Weight of lights:                      ea.	
Device Name		
Detailed Desc. Of Device, Materials, sizes, Fasteners, Substrates Foundation, Aux. Features Ballast, etc.	(May be attached on separate page(s) All plastic Type I and Type II barricade; legs and boards molded as one piece. Meets MUTCD requirements. Height is 42.6"; width is 24.4"; weight is 13.2 lbs. May be ballasted with sandbags, if desired.	

Page 3	<b>FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter</b>	Letter Number
		Date <b>WZ70 5</b>

**Please select from the following Keywords for “Type of Device”:**

Longitudinal Channelizing Barricade  
 Curb (Curb channelizer system with or without road tubes or other channelizers)  
 Drum  
 H-Footprint Sign Stand  
 X-Footprint Sign Stand  
 Trailer Mounted Signs (Does not include arrow boards or variable message signs or other Category 4 trailer mounted devices.)  
 Automated Flagger Device (not trailer mounted)  
 Tripod Sign Stand  
 Type I Barricade  
 Type II Barricade  
 Type III Barricade  
 Vertical Panel  
 Intrusion Detector  
 Ballast (Action relates to ballast on one or more devices)  
 Channelizer (Individual units unlike cones, road tubes, or drums)

**Please select from the following Keywords for “Sign Substrate”:**

Roll-up / Fabric (with fiberglass spreaders – aluminum or steel spreaders are not allowed.)  
 Plywood  
 Aluminum – Solid  
 Aluminum – Laminate  
 Corrugated Plastic  
 Extruded Plastic  
 Waffleboard Plastic  
 Wood / Lumber

**Please select from the following Keywords for “Height of Sign”:**

The distance to the lowest point on the sign is:

Low            12 to 18 inches above the pavement  
 Mid-A         20 to 24 inches above the pavement  
 Mid-B         25 to 36 inches above the pavement  
 Mid-C         37 to 59 inches above the pavement  
 Tall            60 to 71 inches above the pavement  
 Oversized     72 inches and taller

