



U.S. Department  
of Transportation  
Federal Highway  
Administration

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

December 23, 2009

In Reply Refer To:  
HSSD WZ-22/  
WZ-106/WZ-106A/  
WZ-107/WZ-127/  
WZ-127#1

Mr. Leo Yodock  
President  
The Yodock Wall Company  
P.O. Box 354  
Bloomsburg, PA 17815

Dear Mr. Yodock:

In your letter of August 4, you requested the Federal Highway Administration (FHWA) acceptance of your modified longitudinal channelizing device, the 2001M or Metropolitan, for use as a crashworthy traffic control device in work zones on the National Highway System (NHS). The modified 2001M is now made of blow molded high-density polyethylene.

The modified 2001M or Metropolitan is intended for use as detailed in previous FHWA acceptance letters and considered equivalent to the original 2001M device.

The original 2001M device was performance tested and FHWA acceptance letters WZ 22, 106, 106A, 107, and 127 have since been issued.

Accompanying your letter was the FHWA Office of Safety Design forms, a drawing of the modified 2001M and a copy of a test report that documented static testing conducted on your modified device to verify connection strength between units linked together and to compare the results to the previously accepted 2001M device. The results of testing indicated that the connection strength did not exceed that of the original 2001M.

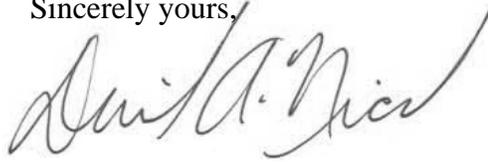
You have requested that we find this device acceptable as meeting Test Level 3 criteria for use on the NHS under the provisions of the National Cooperative Highway Research Program Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features".

This letter is to acknowledge the FHWA's *acceptance* of the modified device and your request.



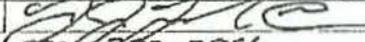
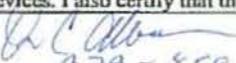
Longitudinal channelizers should not be described as "barriers" because they do not meet crashworthiness requirements for redirection. The FHWA recommendations for labeling each unit or module to indicate limitations of use are enclosed. The original completed forms have been modified by the addition of the FHWA acceptance letter number and the date of our review. The forms will be posted on our Web site in the near future.

Sincerely yours,

A handwritten signature in black ink, appearing to read "David A. Nicol". The signature is fluid and cursive, with a long, sweeping tail on the final letter.

David A. Nicol, P.E.  
Director, Office of Safety Design  
Office of Safety

Enclosures

Page 1	<b>FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter</b>	Letter Number WZ-127#1 Date 10/20/09
Contact Info	Petitioner / Developer Name and Address: The Yodock Wall Company, Inc. Attn: Leo J. Yodock, III 900 Patterson Dr. Bloomsburg Pa 17815	
	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		
Telephone #	570-280-2856	
Email Address	lyodock@Yodock.com	
	Laboratory / Engineer Name and Address Texas Transportation Institute Texas A&M 3133 TAMU College Station Tx 77843 : Dean Albersen	
<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 checked="" type="checkbox"/>	I have evaluated the requested modifications to these devices previously found acceptable by the FHWA in Acceptance Letter WZ- <u>        </u> 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	 DEAN C. ALBERSON	
Telephone #	379-458-3874	
Email Address	d-albersen@tamu.edu	
Keywords:	Type of Device (See page 3) Longitudinal Channelizing Barricade, Type III, Barricade Composition of Sign or Rail substrate (See Page 3) Rail: Plastic, Sign: metal, wood, 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) see specification sheets.	

WZ 22, 106, 106A  
107, 127

Page 2	<b>FEDERAL HIGHWAY ADMINISTRATION</b> <b>OFFICE OF SAFETY DESIGN</b> <b>Category 2 Work Zone Device Acceptance Letter</b>		Letter Number WZ-127#1 Date 10/20/09
	<b>Mandatory Attachments</b>		
	<b>Attachment # 1: Test data summary page(s)</b>		
	Attach. #1a	Test # P11	
	Attach. #1b	Test # P12	
	Attach. #1c	Test # P13	
	Attach. #1d	Test # P14	
Alternative	<b>Attachment # 1: Description and discussion of modification(s) to crash tested and/or accepted device.</b>		
	Date:		
	<b>Attachment # 2: PDF drawing(s) of device(s)</b>		
	Attach. #2a	Drawing Title:	
		Drawing #:	
	Attach. #2b	Drawing Title:	
		Drawing #:	
	Attach. #2c	Drawing Title:	
		Drawing #:	
	Attach. #2d	Drawing Title:	
		Drawing #:	
	Attach. #2e	Drawing Title:	
		Drawing #:	
	Attach. #2f	Drawing Title:	
		Drawing #:	
	Attach. #2g	Drawing Title:	
		Drawing #:	

Page 3	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number WZ-127#1 Date 10/20/09
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**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":**

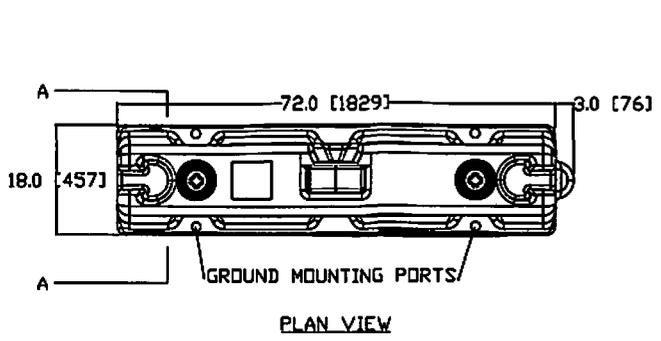
The distance to the lowest point on the sign is:

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

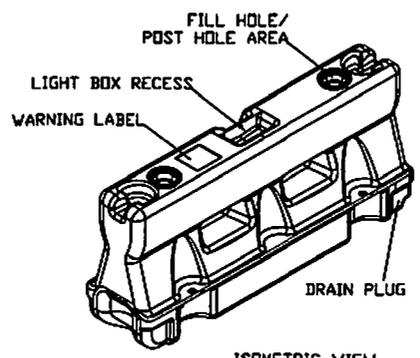
Page 4	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number
		WZ-12741
		Date 10/20/09

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

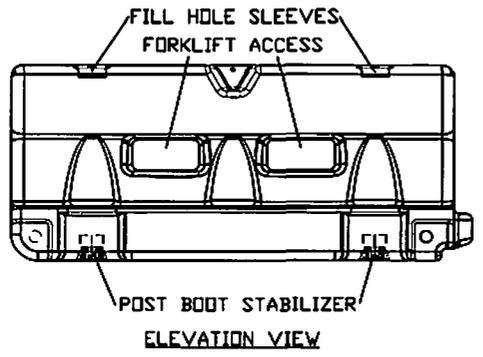
- Our acceptance is limited to the crashworthiness characteristics of the devices and does not cover their structural features, or conformity with the Manual on Uniform Traffic Control Devices.
- Any changes that may adversely influence the crashworthiness of the device will require a new acceptance 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 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.
- If the subject of this letter is a patented device it 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 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. Our regulations concerning proprietary products are contained in Title 23, Code of Federal Regulations, Section 635.411, a copy of which is enclosed.
- This Acceptance Letter shall not be construed as authorization or consent by the Federal Highway Administration 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.



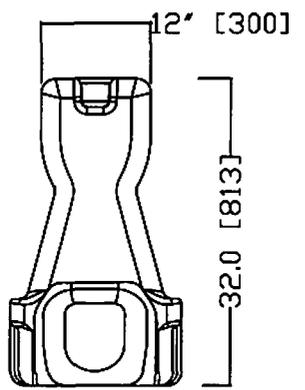
PLAN VIEW



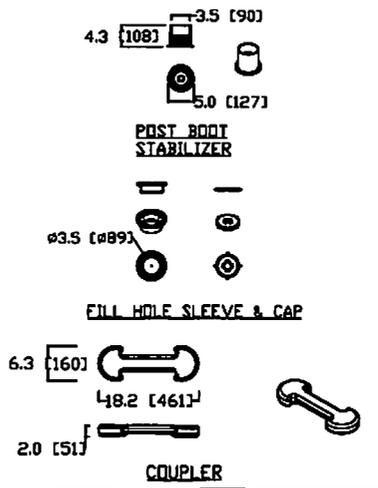
ISOMETRIC VIEW



ELEVATION VIEW



SECTION A-A



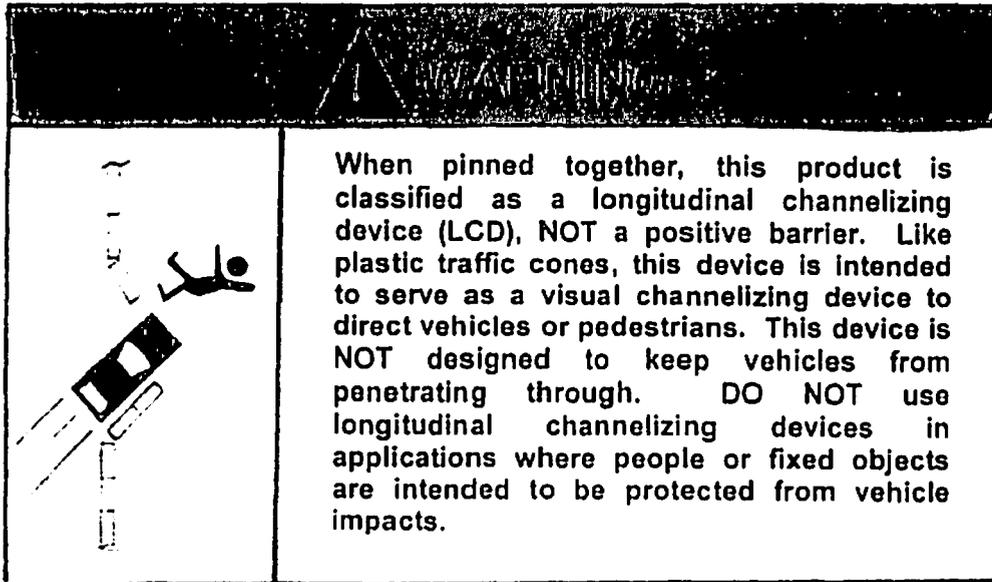
NOTES:

- 1) The Yodock Metropolitan Barricade is a recyclable, portable energy disbursement cell used to assist in the prevention of vehicular penetration of a work zone or gore area, as well as providing clear delineation for traffic channelization and pedestrian safety. When installed as a longitudinal channelizer, the units can be interlocked end-to-end, at bottom, with female-to-male indentations, and at top, with locking coupling device and ballasted. Warning flags, steady burning lights, or flashing lights can be securely mounted to each unit. When used as a barrier wall, the system must be accessorized with the Yodock 350 Barrier Wall Kit.
- 2) The Metropolitan is made using blow molding to ensure watertightness and integrity. The unit is manufactured with internally molded baffles in order to maintain its shape, be properly sealed and leakproof. The unit is provided with drain plugs and underside grooves to allow for flow of surface drainage. The unit is joined by a unique coupling device that aids in the prevention of separation of the individual portable energy disbursement cell units during impact. The unit has ports designed to allow for ground mounting and forklift holes for ease of mobility when filled.
- 3) The materials used are a recyclable polyethylene, blow molded to a nominal thickness of 1/16" [2 mm].
- 4) The standard colors of the cells are opaque ivory and orange. Other colors may be introduced as required by project specifications.
- 5) The nominal empty weight of each unit is 80 lbs [36 kg], and up to approximately 900 lbs [408 kg] when water filled.
- 6) Light box recesses accommodate a standard barricade light & ball.
- 7) Fill hole & drain hole cap use a standard 2" [50mm] bung wrench.

Contact manufacturer for details and specifications of components when not indicated on this drawing.

All dimensions are nominal, and subject to manufacturing tolerances.

		900 Patterson Drive Bloomsburg, PA 17815 1-888-4-YODOCK www.yodock.com	
		CONTRACTOR:	
PROJECT:			
SCALE:		DATE: 07/27/09	
REVISED:	CHECKED:	DRAWN: CGH	
<b>METROPOLITAN BARRICADE</b>			
32" TALL BARRICADE		1 / 1	



**Example of a possible Plastic Water-Filled Longitudinal Channelizing Device (LCD) Decal**