U.S. Department of Transportation
Federal Highway Administration

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

October 22, 2010

In Reply Refer To:
HSSI/WZ-294

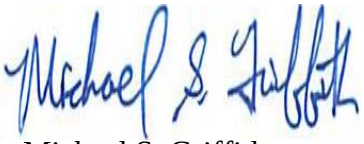
Mr. John M. Pasakarnis
Dicke Safety Products
1201 Warren Avenue
Downers Grove, IL 60515

Dear Mr. Pasakarnis:

This is in response to your October 7 correspondence requesting the Federal Highway Administration's (FHWA) acceptance of a number of your company's portable sign stands with 60-inch x 60-inch roll up signs as crashworthy traffic control device for use in work zones and elsewhere on the National Highway System (NHS). Accompanying your letter was the FHWA Office of Safety Design form explaining that all the stands were found acceptable with 48-inch x 48-inch signs, but that the 60 x 60 signs would be affixed to the stands so that the top of the sign is at the same height as the 48 x 48 signs. You requested that we find these devices acceptable for use on the NHS under the provisions of National Cooperative Highway Research Program Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

This letter is the acknowledgement of the FHWA's acceptance of your request. The original completed form has been modified by the addition of the FHWA acceptance letter number and the date of our review. The form, of which a copy is enclosed for reference, will be posted on our Web site in the near future.

Sincerely yours,



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

Enclosure

DICKE SAFETY PRODUCTS

1201 Warren Avenue • Downers Grove, IL 60515 • Ph: 877.891.0050 • Fax: 630.969.3973

October 07, 2010 Revision #1

Mr. Nick Artimovich, II
Highway Engineer
Federal Highway Administration
Office of Safety Design
1200 New Jersey Avenue, SE HSSD
Washington, DC 20590

Dear Mr. Artimovich,

This inquiry is in regards to our follow-up regarding the impact 60x60 roll-up signs would have on previously accepted stands. According to the clarification you provided regarding WZ-85, various sizes of roll-up signs can be accepted without re-testing. The key specification to maintain is the finished sign height, as long as the bottom of the sign is no closer than 12" to the ground. These signs are normally mounted in a rectangular shape, but I have also included data for the diamond shape application. The stand / sign specifications may be found in Table #1 below and in the attached drawing.

Table #1 – Sign Height Comparison

Stand	WZ Letter	48x48 Rect Bottom/Top	60x60 Rect Bottom/Top	60x60 Diamond Bottom/Top
TF18	WZ-141rev	18" / 86"	26" / 86"	N/A
TF60	WZ-141rev	60" / 128"	68" / 128"	43" / 128"
TF84	WZ-141rev	84" / 152"	92" / 152"	67" / 152"
DF4503	WZ-99	60" / 128"	68" / 128"	43" / 128"
DF4700TX	WZ-25	84" / 151"	91" / 151"	66" / 151"
STF1008	WZ-250rev	60" / 128"	68" / 128"	43" / 128"

Request #1:
Based on the enclosed information and previous test data, we are seeking acceptance of the sign stands listed above for use with 60"x60" roll-up signs. We believe this to be a reasonable request because the

design differences all occur below the height of the vehicle bumper. As such, we contend that they will have no effect on the windshield impact data.

Should you need any further documentation, please let me know.

Sincerely,

John M. Pasakarnis
Dicke Tool Company
630-969-0050 x28
john@dicketool.com
www.dicketool.com

Page 1	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number WZ-294 Date 10/20/10
Contact Info	Petitioner / Developer Name and Address: Dicke Safety Products 1201 Warren Avenue Downers Grove, IL 60515	
	I herby 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	John M. Pankaus	
Telephone #	(630) 324-5209	
Email Address	john@dicketool.com	
	Laboratory / Engineer Name and Address	
☐	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.	
☐	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:	TF18, TF60, TF84, DF4503, DF4700TX, STF1008	
	Type of Device (See page 3) X-Footprint Sign Stand	
	Composition of Sign or Rail substrate (See Page 3) Roll-up / Fabric (with fiberglass spreaders – aluminum or steel spreaders are not allowed	
	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: 2 # 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 attached revised submittal letter and drawing	

Page 2	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number Date
	Mandatory Attachments	
	Attachment # 1: Test data summary page(s)	
	Attach. #1a — Test #	
	Attach. #1b — Test #	
	Attach. #1c — Test #	
	Attach. #1d — Test #	
Alternative	Attachment # 1: Description and discussion of modification(s) to crash tested and/or accepted device.	
	Date: 10/19/2010	
	Attachment # 2: PDF drawing(s) of device(s)	
	Attach. #2a — Drawing Title: WZ Submittal Letter (rev#1) (PDF)	
	Drawing #:	
	Attach. #2b — Drawing Title: Tall Stands - Sign Options (PDF)	
	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 Date

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:

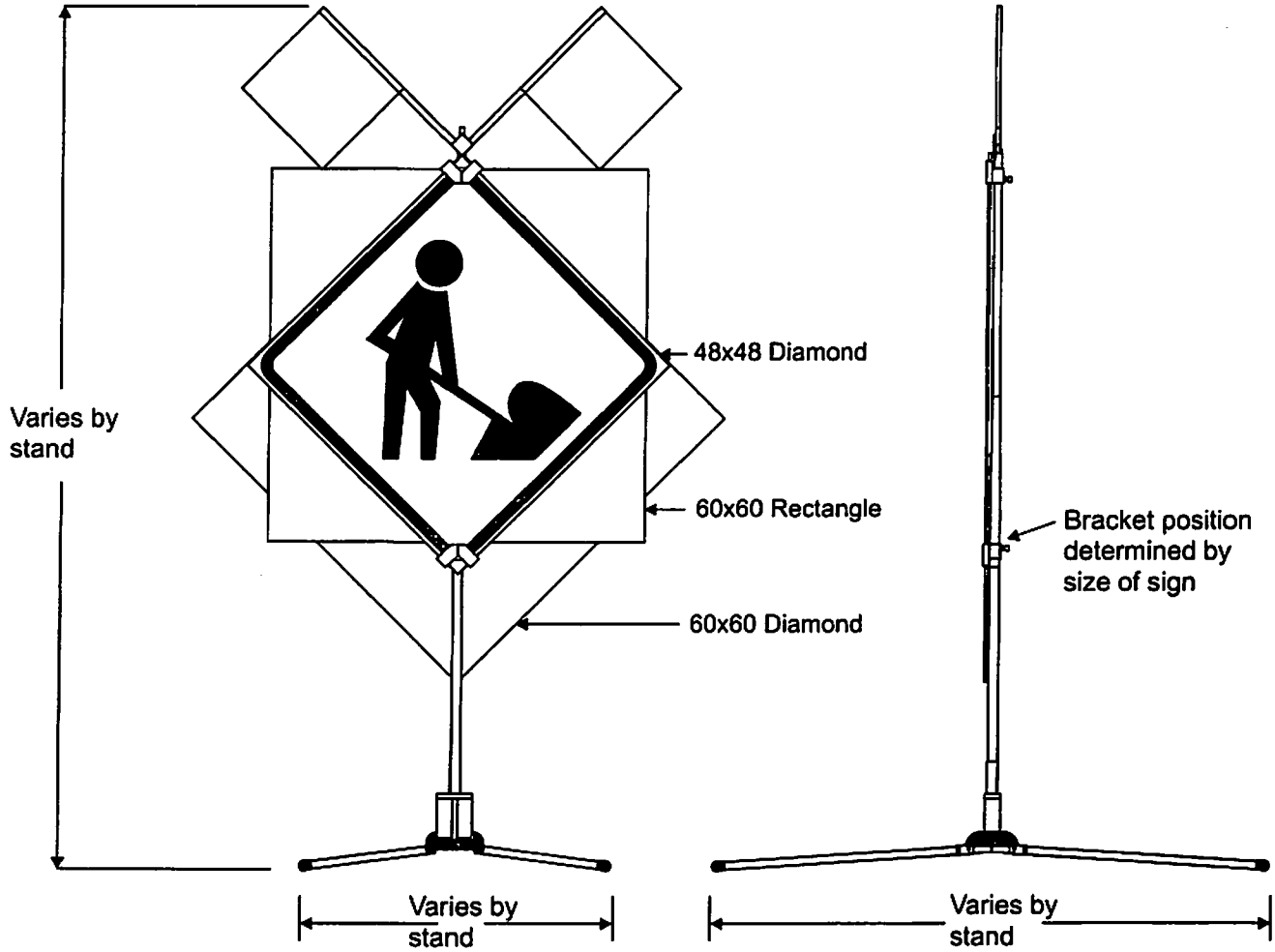
Low	12 to 18 inches above the pavement
Mid-A	20 to 24 inches above the pavement
Mid-B	25 to 36 inches above the pavement
Mid-C	37 to 59 inches above the pavement
Tall	60 to 71 inches above the pavement
Oversized	72 inches and taller

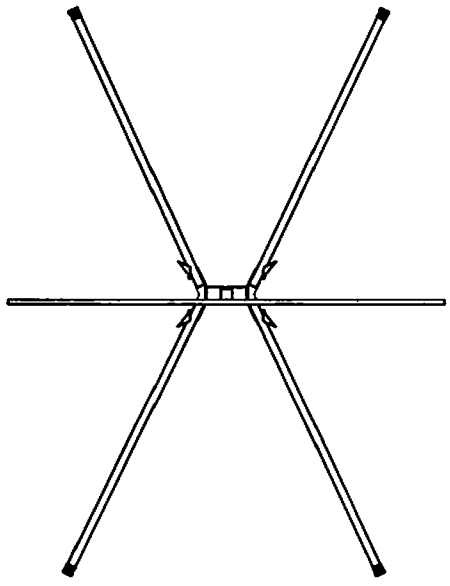
Page 4	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number Date

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.

TALL STANDS
for Roll-up Signs





SIGN STAND (Roll-up Signs)

- Base- Steel (some with heavy duty upright spring system)
- Mast- 1-1/4" and 1-1/2" sq. aluminum tubing
- Legs- sq. aluminum tubing
- Panel- Roll-up vinyl with fiber-glass stiffeners.
- Flags- 18" x 18" vinyl with 30" staff
- Weight- varies per stand

DICKE TOOL COMPANY 1201 Warren Avenue Downers Grove,IL 60515 Tel.(630)969-0050 Fax(630)969-3973