



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

July 1, 2009

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

In Reply Refer To:
HSSD/WZ-283

Mr. John Reynolds
Chief Engineer
Work Zone Safety Products Inc.
7201 Haven Ave, Suite E
Alta Loma, CA 91701

Dear Mr. Reynolds:

In your letter of April 10, 2009, you requested the Federal Highway Administration (FHWA) acceptance of the Econo Brother x-footprint temporary sign stand as a crashworthy traffic control device for use in work zones on the National Highway System (NHS). You requested acceptance of the temporary sign stand for use with roll-up sign substrate material. Your request for acceptance is based on the performance of the generic low mounted sign stands accepted in FHWA letter WZ-240 and a similar x-footprint sign stand in WZ-24. Accompanying your letter were the FHWA Office of Safety Design forms that included drawings and a detailed description of the Econo Brother. Drawings of the Econo Brother are enclosed for reference. You requested that we find the Econo Brother acceptable for use as a Test Level 3 device 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 acknowledges FHWA's acceptance of your request. The original completed forms have been modified by the addition of the FHWA acceptance letter number and the date of our review. The form will be posted on our Web site in the near future.

Sincerely yours,

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

Enclosures



Page 1	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN Category 2 Work Zone Device Acceptance Letter	Letter Number WZ-283 Date 6/19/09
Contact Info	Petitioner / Developer Name and Address: Work Zone Safety Products Inc. 7201 Haven Ave. Suite: E Alta Loma, Ca. 91701	
	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>John Reynolds</i>	
Telephone #	(909) 266-1453	
Email Address	john@workzonesafetyproducts.com	
	Laboratory / Engineer Name and Address John Reynolds - Chief Engineer 7201 Haven Ave. Suite: E Alta Loma, Ca. 91701	
<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-___, and hereby certify that, in my opinion, the modifications do not adversely affect the crash performance of the device. I also certify that these devices are accurately described on this form.	
Signature	<i>John Reynolds</i>	
Telephone #	(909) 587-8942	
Email Address	john@workzonesafetyproducts.com	
Keywords:		
	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): 0.63	
	Height of sign from the ground (inches), if applicable: (See Page 3) Low: 12 to 18 inches above the pavement	
	Flags and or lights present during test? Indicate number of each:	
	# of flags:	# of lights: Weight of lights: ea.
Device Name	Econo-Brother Sign Stand	
Detailed Desc. Of Device, Materials, sizes, Fasteners, Substrates Foundation, Aux. Features Ballast, etc.	(May be attached on separate page(s)) The WZ Econo-Brother sign stand is an X-footprint portable sign stand having a steel upright 1.20 inches square, out of which telescopes a 1 inch square upper mast which can support a 48" x 48" roll-up sign at a height of 305 mm (12") above the pavement. The mast is supported on a base mounted with attached folding legs measuring 42" each, and fastened onto a 1-inch square post. Roll-up Signs are held in place with a roll-up sign bracket. The steel legs and mast have a wall thickness of 0.120 inches.	

Page 2	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN		Letter Number
	Category 2 Work Zone Device Acceptance Letter		WZ-285
			Date 6/19/09
	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: 06/01/2009		
	Attachment # 2: PDF drawing(s) of device(s)		
	Attach. #2a	Drawing Title: Econo-Brother Sign Stand	
		Drawing #: 3200	
	Attach. #2b	Drawing Title: Econo-Brother Isometric View	
		Drawing #: 3200-ISO	
	Attach. #2c	Drawing Title: Econo Base	
		Drawing #: 3200-4500	
	Attach. #2d	Drawing Title: Sign	
		Drawing #: 3200-Sign	
	Attach. #2e	Drawing Title: Leg Assembly	
		Drawing #: 3200-6500	
	Attach. #2f	Drawing Title:	
		Drawing #:	
	Attach. #2g	Drawing Title:	
		Drawing #:	

Page 3	FEDERAL HIGHWAY ADMINISTRATION OFFICE OF SAFETY DESIGN	Letter Number
	Category 2 Work Zone Device Acceptance Letter	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”:

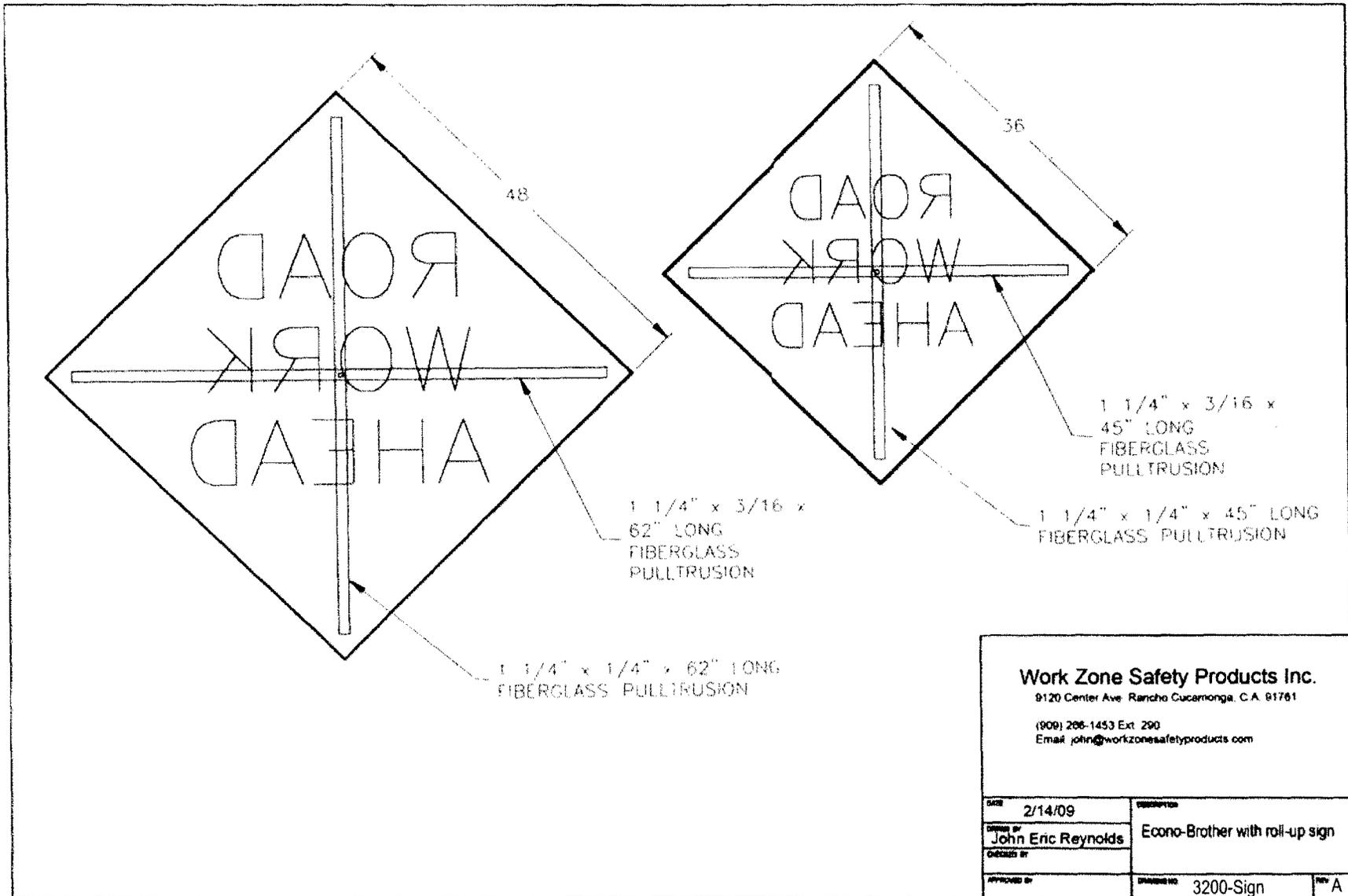
The distance to the lowest point on the sign is:

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			Letter Number
	Category 2 Work Zone Device Acceptance Letter			
				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.



Work Zone Safety Products Inc.

9120 Center Ave. Rancho Cucamonga, CA 91761

(909) 266-1453 Ext. 290

Email: john@workzonesafetyproducts.com

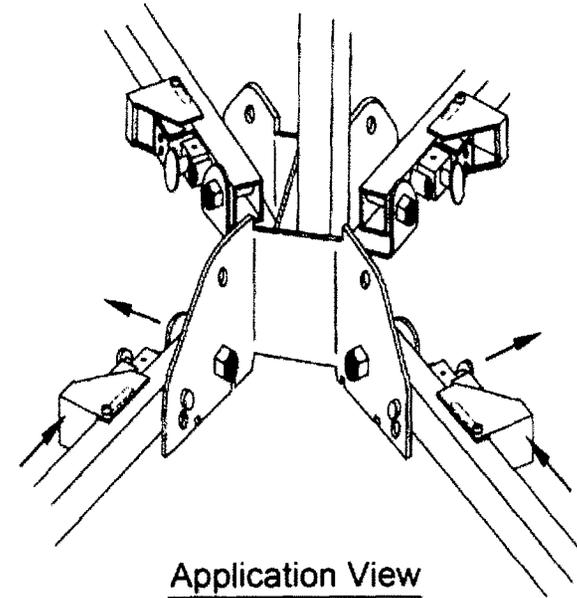
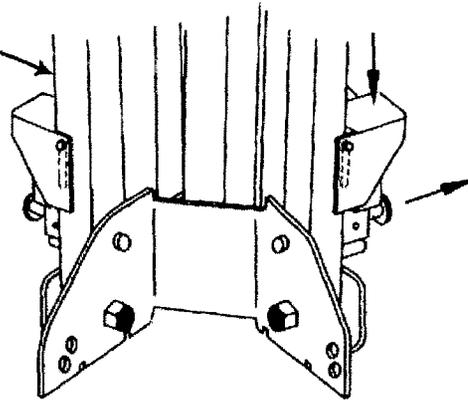
DATE	2/14/09	DESCRIPTION	
DESIGNED BY	John Eric Reynolds	Econo-Brother with roll-up sign	
DRAWN BY			
APPROVED BY		DRAWING NO.	3200-Sign
		REV	A

Notes:

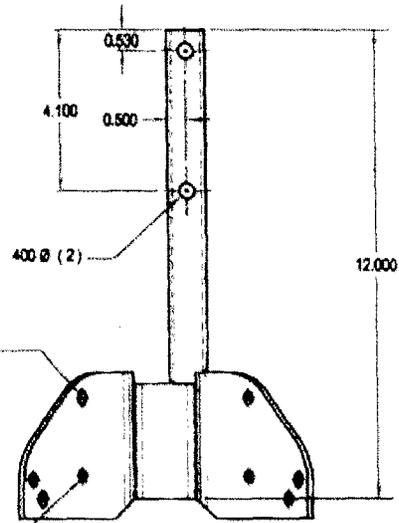
Material: 7 Ga. Steel Plate

Finish:

Leg Assmely
3200-6500
4 typ.



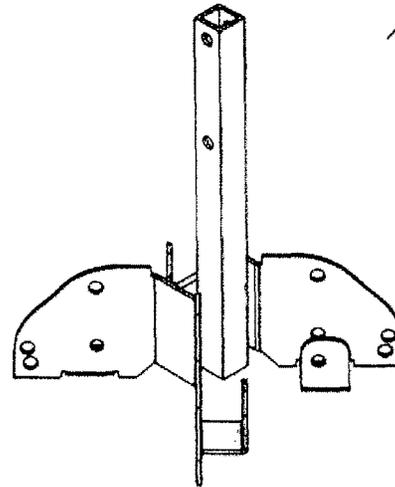
Application View



420 Ø HOLE (4)

380 Ø HOLE (8)

SIDE VIEW



Work Zone Safety Products Inc.

9120 Center Ave. Rancho Cucamonga, C.A. 91761

(909) 266-1453 Ext. 290

Email: john@workzonesafetyproducts.com

DATE 2/14/09

DRAWN BY John Eric Reynolds

CHECKED BY

APPROVED BY

DESCRIPTION

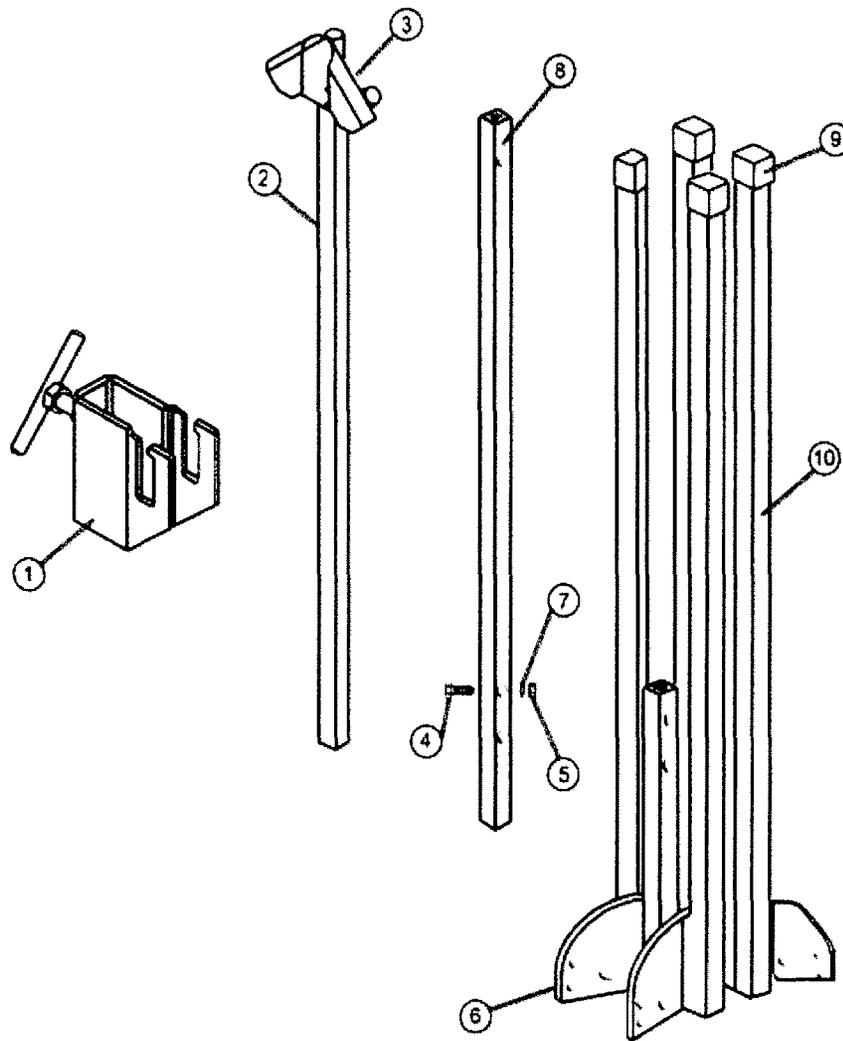
Econo-Base

DRAWING NO. 3200-4500

REV B

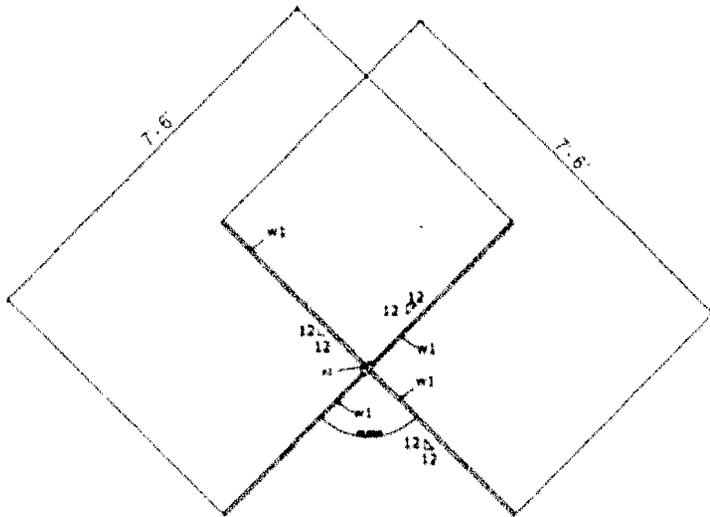
Econo-Brother™

Model # 3200

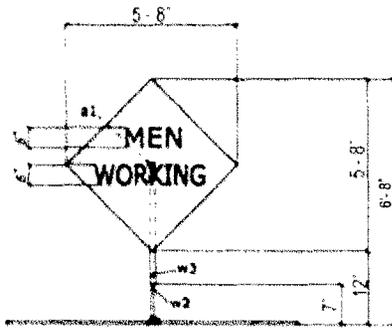


ITEM #	REF. #	PART #	DESCRIPTION	QTY. PER ASSY.
1		3200-1000	ROLL UP SIGN BRACKET	1
2	a1	3200-1500	INNER MAST	1
3		3200-3000	FLAG BRACKET	1
4		3200-3500	HEX HEAD BOLT	1
5		3200-4000	HEX HEAD NUT	1
6	a2	3200-4500	ECONO-BROTHER BASE	1
7		3200-5000	WASHER	1
8	W3	3200-5500	OUTER MAST	1
9		3200-6000	RUBBER CAP - LEG	4
10	W1	3200-6500	LEG ASSEMBLY	4

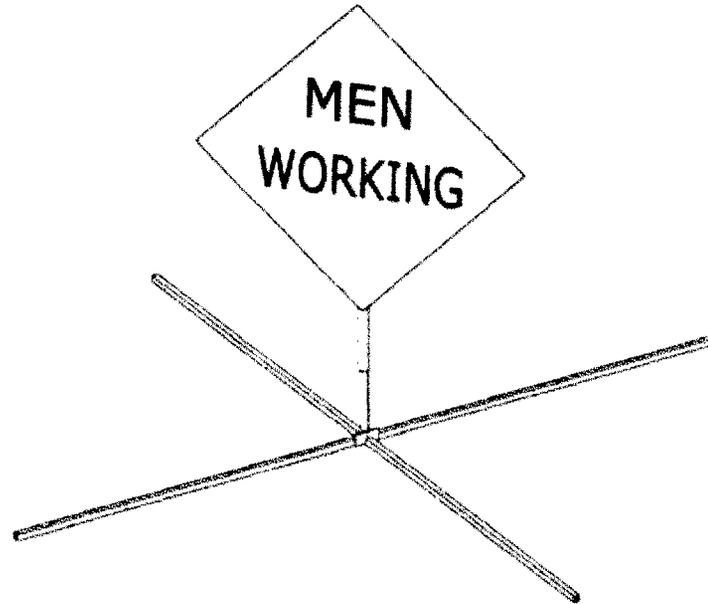
Work Zone Safety Products Inc.



TOP VIEW

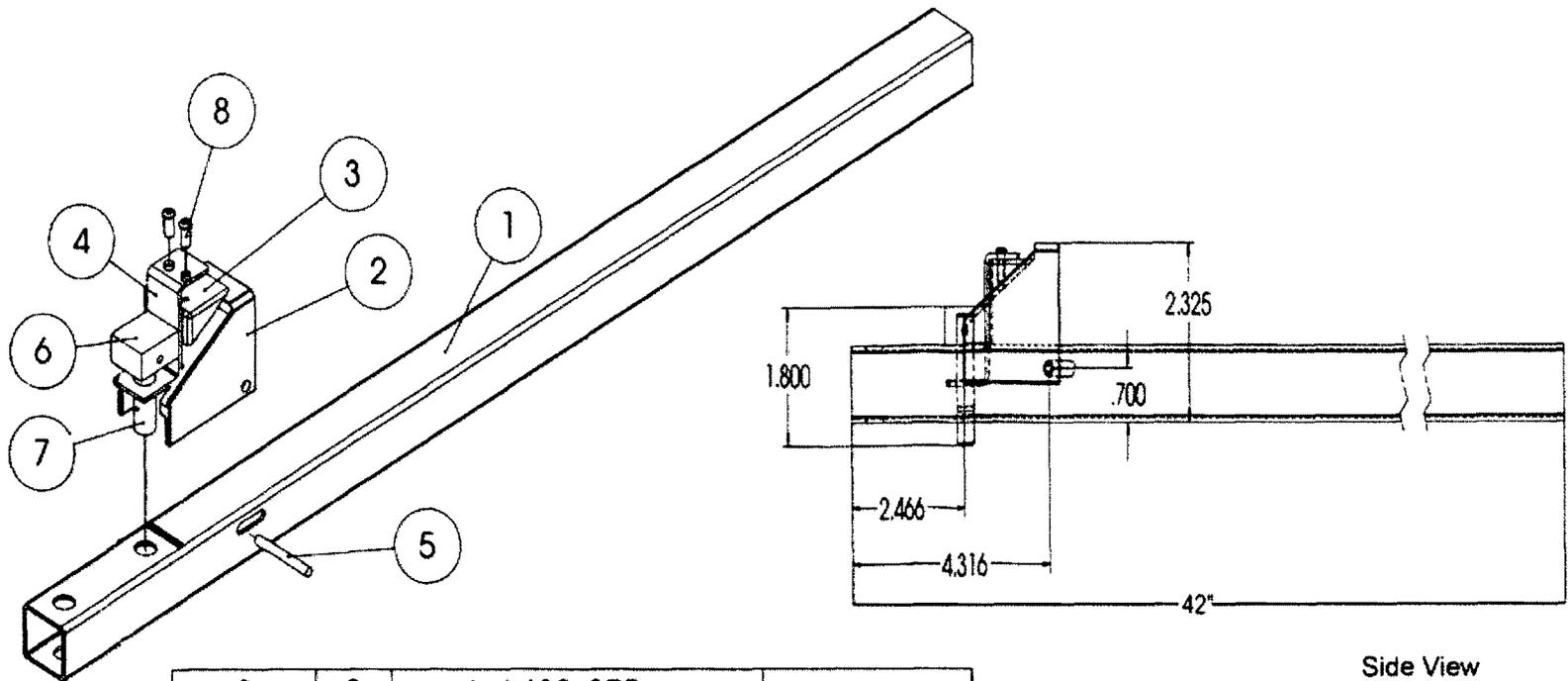


FRONT VIEW



ISOMETRIC VIEW

Bill of Material						Econo-Brother Sign Stand Isometric View
Mark	Qty	Description	Length	Weight	Remarks	
a1	1	Inner Mast	3'-10"	5	1.00x1.00x16 ga CRS	Drawn By John Reynolds
a2	1	Base Assembly		9		
W1	4	Leg Assembly	3'-6"	32	1.00x1.00x16 ga CRS	Dwg Date 2/20/09
W2	1	Mt. Post Outer	1'-0"		1.00x1.00x1.20 Tube St	
W3	1	Outer Mast	3'-1"	7	1.20x1.20x1.20 Tube St	Rev: A
Total weight				53		



Side View

8	2	pan-hd-632x375	
7	1	pf-100-e	
6	1	pf-100-d	
5	1	4mm_dowel-pin	
4	1	pf-100-c	
3	1	pf-100-b	
2	1	LARGE PLASTIC WEDGE	
1	1	22_tube	
ITEM NO.	QTY.	PART NO.	DESCRIPTION

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Email: john@workzonesafetyproducts.com

DATE	2/14/09	DESCRIPTION	Leg Assembly
DESIGNED BY	John Eric Reynolds		
DRAWN BY			
APPROVED BY		REVISED NO.	3200-6500
		REV.	B