SUPERSEDED BY EI 98-003 EFFECTIVE 2/4/98		*New York State Department of Transportation* ENGINEERING BULLETIN	EB 97-007
		Expires one year after issue unless replaced sooner	

Title: **METRIC WOOD SIZES**

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Approved:

P. J. Bellair, Director, Design Quality Assurance Bureau — Date: 5-28-97

One of the many questions associated with metric conversion is the description of wood sizes in metric. According to ASTM E380, which gives the rules for metric conversion, dimensioned (dressed dry) lumber sizes are only **nominal** and may still be referred to by their **nominal** names. That is, since a 2X4 is not 2" X 4", but actually 1½" X 3½", it may continue to be called a 2X4, according to E380. (No one could possibly think a 2X4 is 2 mm X 4 mm, even though the metric note says that all dimensions are in millimeters unless otherwise stated.) Alternately, a soft conversion to the nearest millimeter is also acceptable, and both conventions are used in the Metric Spec Book and Standard Sheets. Only hard conversions to round numbers are unacceptable. For example, a 2X4 may also be called a 38X89, but not a 50X100. Therefore, designers are given the table on the back of this page for the purpose of designing with, and specifying, actual sizes for dressed dry lumber.

When rough cut lumber is specified, it should be described using 25 mm per inch, and the word "minimum" immediately after the size. For example, a 12X12 rough cut timber should be described as a 300X300 minimum rough cut timber.

The timber and lumber industry has not yet developed a uniform designation policy for their products, but the above guidelines have been discussed with the industry and found to be acceptable.

In the Metric Standard Specifications of 1995, the Method of Measurement for **Section 594 - Timber and Lumber**, is by volume, measured in cubic meters. However, the prescribed method for computing that volume uses the minimum **nominal** commercial size of undressed material for computing the cross sectional area, and then multiplying that area by the measured length of the member. But since nominal size is not appropriate in metric units, this will be changed to the actual minimum dressed size in millimeters. When round timbers are specified, they will be measured as the smallest square section that the round member can be made from.

Any questions pertaining to this matter may be referred to Richard Stempel of the Design Quality Assurance Bureau at (518) 457-5440.

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AVAILABLE NOMINAL & MINIMUM DRESSED DRY WOOD SIZES					
THICKNESSES			FACE WIDTHS		
NOMINAL	MINIMUM DRESSED		NOMINAL	MINIMUM DRESSED	
INCH	INCH	MILLIMETER	INCH	INCH	MILLIMETER
3/8	5/16	8	2	1½	38
½	7/16	11	3	2½	63
5/8	9/16	14	4	3½	89
3/4	5/8	16	5	4½	114
1	3/4	19	6	5½	140
1 1/4	1	25	7	6½	165
1½	1¼	32	8	7¼	184
1 3/4	1 3/8	35	9	8¼	210
2	1½	38	10	9¼	235
2½	2	51	11	10¼	260
3	2½	63	12	11¼	286
3½	3	76	14	13¼	337
4	3½	89	16	15¼	387