**OREGON**
**Interpretive Ruling No. 93-3**
**PRESCRIPTIVE WIND LOADING REQUIREMENTS**
**(revised 7-15-99, editorial only)**

**Requested by:** Michael A. Cliburn, Building Official, Clackamas County

**REQUEST FOR RULING:**
If a structure is constructed to the prescriptive requirements of Chapters 6 and 8 in the One and Two Family Dwelling Specialty Code (Dwelling Code), can it be assumed that it complies with the wind loading requirements? If not, what is the proper procedure for wind design?

**APPLICABLE CODE SECTIONS:**

> **601.2 Requirements:** The wall construction shall be capable of accommodating all loads imposed according to Section 301 and transmitting the resulting loads to its supporting structural elements.

and;

> **602.3 Exterior walls.** Exterior walls of wood-frame construction shall be designed and constructed in accordance with the provisions of this chapter and Figures 602.3a and 602.3b. Components of exterior walls shall be fastened in accordance with Table 602.3a through 602.3d.
>
> **602.3.1 Pounds per square foot wind pressure.** ***Exterior walls subject to wind pressures of 30 pounds per square foot (1.44kN/m$^2$) or greater, as established in Table 301.2a shall be designed in accordance with accepted engineering practice. (emphasis added)***

and;

> **801.1 Application:** The provisions of this chapter shall control the design and construction of the roof-ceiling system for all buildings. ***The use of materials or methods of construction not specified in this chapter accomplishing the purposes intended with this code and approved by the building official in accordance with this code and approved by the building official in accordance with Section 108 shall be accepted as complying with this code. (emphasis added)***
>
> **801.2 Requirements:** Roof-ceilings construction shall be capable of accommodating all loads imposed according to Section 301 and shall transmit the resulting loads to its supporting structural elements.

and;

Table 301.2, Footnote:

> [2] The wind pressure may be more accurately determined for unique local conditions by using Volume 2, Division III, Section 1615 of the 1998 Oregon Structural Specialty Code. The values in this column were calculated using exposure C. See Table 301.2b, design load notes.

and;

**FIGURE 301.2d**
**OREGON BASIC WIND SPEED MAP**

**BACKGROUND:**
This topic was addressed in the Consolidated Interpretations for the "Dwelling Code" issued June 15, 1990.

**FINDINGS:**
This interpretation is authorized by ORS 455.060, Rulings on Acceptability of Materials, Designs or Methods of Construction and Attorney General's Opinion OP-5208 issued October 1, 1981, which advised that the statute permits authoritative interpretations of existing code requirements.

**DISCUSSION:**
The Dwelling Code is written to serve the home-owner and the conventional home-builder and is conservative in its design methods. It includes only the simplest of engineering principles. However, Chapter 16 (in Volume 2, Division III, Section 1615 of the 1998 Oregon Structural Specialty Code) adopts by reference a bookcase of national standards and engineering materials. The building official may require the use of these standards for more complex designs and is empowered to accept the design if these standards are used. The design methods found in the Oregon Structural Specialty Code (OSSC) may also be accepted by the building official as approved designs. Footnote 2 of Table 301.2a refers to Section 1615 of OSSC for wind load design. The building official, under Section 108, can accept alternate design methods when the Dwelling Code does not adequately address construction designed to safely support all loads.

**CONCLUSION:**
Review of wind load data indicates there are no areas in Oregon exceeding 30 pounds per square foot. This results in all areas in Oregon fall within the prescriptive guidelines of Section 602.9. Since not all areas in Oregon are in the same seismic zone, the use of seismic zones governs the prescriptive path to use. Therefore, Table 602.9 is appropriate as printed.

For structures not complying with Table 602.9 or falling outside prescriptive guidelines, performance design would be required. Performance criteria was addressed in consolidated interpretations for the "Dwelling Code" issued June 15, 1990, pages 8 and 10.

(signed May 19, 1993)
John Talbott, Chairman
Structural Code Advisory Board

Date

The recommendations and findings of the Structural Code Advisory Board are accepted and adopted.

(signed May 24, 1993)
Gary J. Wicks, Administrator
Building Codes Division

Date